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Man in Evolution

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G. de PURUCKER

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PREFACE

THIS volume takes the place — at least in time — of two volumes published some years ago which contained verbatim stenographic reports of lectures delivered by the author during 1927. These earlier volumes entitled *Theosophy and Modern Science* had a very gratifying reception, not only by Theosophists but others; but the book having been for some time out of print, it was suggested the two volumes might be condensed into a single one by the process of eliminating all matter extraneous to the main theme and which was the mere consequence or product of the style intentionally used in the lectures themselves. It is obvious that lectures delivered from a public platform of necessity are different both in type and in content to some extent from literary works written for study and reference.

I hesitated before accepting this excellent suggestion, as I had neither the time nor the intellectual leisure to undertake this work of revision myself, and had it not been for the very kindly offer of Miss Helen Savage, one of the sub-editors of *The Theosophical Forum,* it might have been years before the present volume could have been put into circulation. It is entirely due to her unremitting efforts and enthusiastic application, assisted by one or two helpers, that the present book appears today. I have myself carefully gone over the manuscript submitted to me by Miss Savage and take this occasion to express to her my grateful and genuine appreciation of the way in which this work of revision has been accomplished by her.

It also gives me genuine pleasure to express my sincere gratitude to the staff of Theosophical University Press for the admirable and accurate work resulting in this present volume.

MAN IN EVOLUTION imbodies all the essential Theosophical teachings contained in the former *Theosophy and Modern Science* as well as a number of new footnotes dictated by myself, and certain other additions which it seemed to me would strengthen the argument or illustrate different points of teaching or of thought. No attempt has been made in the text, however, to adduce newer and later scientific arguments in favor of the Theosophical position because frankly I did not consider these necessary. It is not intended as a work brought up to date to conform with the latest biological or evolutionary or anthropological theories and discoveries, but is an attempt to set forth very definite and clear-cut Theosophical doctrines; and the illustrations and scientific material which I used when delivering the lectures are as useful here as they were formerly because they merely were the scientific background upon which I then painted the Theosophical picture which I had in mind.

It should be clear, then, that it is the Theosophical doctrine which is the important point; and although it would be interesting and perhaps helpful to some types of minds to have the latest pronouncements of scientific research brought to bulwark the Theosophical position, this, as said above, was not considered necessary. In the Appendix certain data have been gathered which should prove of interest to the scientific student.

Those who today study *The Secret Doctrine,* H. P. Blavatsky's master-work, are faced with the same situation. She published it in 1888 and lavishly brought forth the scientific ideas or theories of that day, and proved her points

of argument abundantly well. Her *Secret Doctrine* is as valuable today as it was when it was published. The main point is that its value lies in the Theosophical teaching in it, and this teaching would neither be detracted from nor supported were it re-edited throughout in our time by discarding the scientific references of 1888 and replacing them with the newest scientific theories. One might say in passing that that wonderful literary work of hers is a constant delight to Theosophists today, for much of what she then taught even in the teeth of scientific theory has now become commonplace knowledge.

I understand that Professor Wood Jones of Manchester University, the eminent and well-known anatomist, was kind enough to read the original *Theosophy and Modern Science* and has supplied to a friend of the author a number of valuable references. These are listed in the Bibliography. He also pointed out certain minor errors in dates which have been corrected in the text. I desire to express my thanks to this gentleman for his courteous and valued suggestions.

G. DE PURUCKER

November, 1941

FOREWORD

THIS new edition of *Theosophy and Modern Science* comes at a particularly appropriate time; for the present chaotic condition of world affairs, with its consequent unsettlement of people's ideas, has centered attention, as never before, upon the implications of modern science as a social factor, its relation to human welfare, and to what extent men of science should concern themselves with the moral values involved in their work. The author will be found to be thoroughly qualified for his undertaking, both as to his ability to present the sublime teachings of the Ancient Wisdom, and as to his mastery of the principal tenets of modern science. His width of reading, his frequent quotations from prominent men of science, and his detailed examination of their views, will furnish readers with the very thing they have been seeking, in order to enable them to meet modern science on its own ground. Full justice is done to the achievements of science so far as these are founded on unassailable fact; but care has been taken to discriminate between what is fact and what is mere speculation based on unwarranted assumptions.

In particular the author combats certain materialistic and biological views, certain perversions of the great doctrine of Evolution, which have imposed on the world a view of Man in which his merely animal nature is accentuated, sometimes even to the denial that he has any higher nature at all. The essential spiritual or divine nature of man is insisted on. This is a view which many people intuitively

feel to be true, yet they find themselves ill equipped to meet the arguments of scientific minds holding the opposite view. To such this book will be a mine of information, from which they may gather the facts and the arguments of which they are in search. In the light of what is said herein, we can view life honestly and view it as a whole. We may learn how the teachings of the Ancient Wisdom present Man and the Universe as one great living whole, consistent in all its parts; and how the *facts* discovered by modern science support these ancient teachings. These facts often run counter to the *theories* of science, especially the facts brought to light by the ever accumulating evidence of archaeology. These facts do not bear out the conventional theories as to the origin of man and his evolutionary past; but on the contrary they lend confirmation to the Theosophical teachings as to Man's mighty heritage from his divine ancestry.

Every thoughtful person today realizes that the one thing needful in our present difficulties is that Man should regain confidence in the essential dignity of his own nature, and that he should have unassailable rational grounds on which to base such a confidence. The opinions of leading men of science of today, many of which are quoted, are tending more and more in this direction; and from these pages we may glean the hope that a great future lies before science, when once it has cleaned its house of the harmful fallacies which have been hindering its work as a champion of truth. We have no doubt that this book will prove a message of hope and faith to many despondent souls, and that they will be able to point back to its first perusal as an epoch in their lives.

H. T. EDGE, B. A. (*Cantab.*)

November, 1941

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1. *The Approach to Truth*

It is truly a wonderful universe in which we live! And yet how little we know of it — even of our own Mother Earth! What brought it into being? What is its past? What is its vital inner and to most of us its invisible structure? What is its destiny? And what of man, its child? Yet there is an answer to these questions, an explanation which by its nature is wholly satisfactory both to the spiritual part of us and to our intellect. It is an explanation of the facts of being which is wholly true, which is not based upon the changing viewpoints of men who, however noble and earnest they may be, are nevertheless researchers only, going ahead warily step by step in their most laudable endeavor to know more of the mysteries of Nature. It is an explanation which has been handed down from immemorial time by great Seers, men with wide and profound spiritual vision, who have penetrated behind the many veils of the outward or phenomenal universe, who have sent their spirit with its accompanying consciousness, deep into the womb of Being, and have brought back conscious records of what the universe is behind the veils of the outward seeming, and have handed it on down through the ages to their disciples,

earnest and truth-seeking men, desiring to know the truth at all costs.

This transmitted truth, this co-ordinated explanation of things, is given to the world today under the name of Theosophy. It is not based on dogmatic statements. It does not demand of anyone an unquestioning and blind adherence to some or to any declaratory assertions made by anybody either now or in the past; but it calls upon everyone to study what he reads or what he hears, and from that earnest and self-revealing study, to draw out for his own benefit, as well as for the benefit of his fellows, for his own self-development and understanding, as well as the self-development and understanding of his fellows, the truths which those who have advanced beyond the average understanding of men have told us that they have found and experienced in these teachings.

Test these teachings yourselves. Study them honestly, and above all abide by the honest decisions which you yourselves will draw from your study. We say this for one reason more than for any other: in thus exercising your inner faculties of will and judgment and intuition, you open within yourselves doors to the entrance of spiritual rays; you open the doors by which the radiant truth may enter your souls, because you aspire towards truth, and that is a spiritual exercise of the noblest kind.

If, on the other hand, you wish to follow mistaken paths, if you wish to turn to the Left-hand, as we say, rather than to the Right-hand, if you desire to kill your intuition, then be satisfied with the dicta of some-

one else; accept what others teach to you as dogmatic truth. Yet, indeed, no true spiritual teacher ever so teaches. None ever so taught. Always is the appeal made to the soul and intuition of the listener. This is one of the tests by which you may know the true teacher from the false, one of the tests by which you may know Religion from *a* religion, Truth from barren dogma.

There is Truth in the universe. What is that Truth? It is the universe itself, or rather the nature of the universe as manifested in the operations of that universe, which is thus self-expressing itself. Its laws are the courses of action of that universe manifesting itself in cosmic terms; and a true philosophy, a true religion, a true science, attempts to interpret these essentials in formulations of thought. The illuminated human intellect can so interpret these essentials because we, as offsprings of the universe, have all the faculties and powers latent in us that the universe has, expressing themselves in us as our own powers and faculties. Thus we have the organs to understand the universe, and this understanding comes to us through the unwrapping of the enshrouding veils of our nature.

Now the faculty of understanding is something we can evolve. This does not mean that we must build up an organ of understanding much as a man will build a house of wood and bricks. Not at all. Our understanding is within us, not without us; and we grow to understand ever more clearly because of our increasing growth in self-consciousness, the manifesting of the inner light that is within each one of us.

Therefore has every Teacher said: Look within! Follow the path leading inwards! You can go on for all eternity inwards, with ever increasing knowledge, gaining ever increasing light, gaining ever increasing spiritual and intellectual life, and incidentally gaining ever increasing joy deepening into bliss; because the universe is harmonious; it acts according to an ethical order; it acts strictly according to the laws of the harmony innate in itself — laws of harmony which are not imposed upon it, but are born of itself, which are its own character, its own nature, which furnish the consistency in action that we see in the universe — its so-called laws. Know these laws; then you will know Truth.

Each one of you thus becomes the pathway to truth, because in you lies the understanding. The thing to be understood lies likewise within yourself. And in following this pathway within yourself leading to spiritual and later to divine goals, you unravel riddles, you solve all problems, you gain all possible knowledges of everything there is to know. Each one of you, each for himself, is a key to all the portals of the universe. By following the pathway which reaches from your own heart and mentality, along the lines of your spiritual being, always inwards, you attain an ever closer approximation towards that sublime goal which on account of your expanding consciousness grows ever greater and larger and seems to be ever receding into some higher and grander truth; literally into that universal life in whose roots every human being takes his origin, verily the Heart of the Universe itself.

Yet, though truth comes ultimately from within, we can learn much from the fruitage of the mature thought of another mind. Even though it is an importation into our mind and is not the fruitage of our own inner revelation, we can learn much from what great and good men may tell us if we take it into ourselves and honestly ponder over it and seek to understand it.

A man comes to me and tells me something, and says, "This is a truth." I should say to him, "I will examine it; it may be true, but it is not true to me until I have proved it by submitting it to the tests of my own inner consciousness. When I have proved it, then it is true to me, but I am going to bring to bear upon your statement every faculty that I have within me: spiritual, intellectual, mental, psychic, emotional, yea, and those minor faculties in which we live on this our present sphere of matter, and which collectively form what we call the brain-mind — fancy, instinct and common reason." Then if I find that the statement is true, I am willing to accept it, and I will accept it, and I will thank him for having brought me something that I did not know before.

What did Paul of the Christians mean when he said to "prove all things and to hold to that which is good"? Who is the judge of the good? Is it not the inner faculty of judgment and understanding? Or are we going to take somebody's say-so and prove all things that come to us by that somebody's say-so? If so, we are merely testing one dogmatic declaration by another dogmatic declaration, and this we positively refuse to do.

Anything you accept from outside, you take either on trust or on faith, unless you have the faculties developed within yourselves of judgment, discrimination, intuition, and understanding, these four being fundamentally one. Is it not therefore clear that the information enabling one to prove all things is the developing of the inner eye, so to speak? Where else on earth, or in the heavens, or in the regions under the earth, could such an infallible touchstone be found?

Hence, if you want to prove all things, then do it in the manner that Paul of the Christians said, and that all other great philosophers and thinkers have said: Cultivate within yourself your inner faculty of understanding; and this can be done by deep thinking, meditation, refusal to accept others' say-so, by the exercise of will-power in an inflexible determination to solve questions for yourself, cost you what it may.

Such mental and spiritual exercise develops the faculties within you; or, to put it more truly, tears down the barriers preventing those faculties from expressing themselves; tears away the veils from before the face of the inner spiritual sun, whose rays are those inexpressibly fine things within yourself. Do this and exercise yourself in it, and as surely as the sun deluges the earth with light will you attain to what you are seeking, the faculty of proving all things by knowing them for true or for false. There is the whole thing in a nutshell.

There is a tremendous responsibility involved in the giving out of truth, or what purports to be truth. Few men have any realization of the enormous power of

ideas over the understanding. The spread of religions, the ready acceptance of philosophical principles, the luxuriant growth of political fads, are all examples of the manner in which men may be swept from their intellectual and moral moorings of principle by the ideas sweeping over their minds and overwhelming both will-power and sense of moral responsibility. It is by no means a truth, as every sane man knows, that ignorant dabbling with a fact of Nature will inevitably produce nothing but things that are good. If so, then, to use a figure of speech, a little child could safely play with dynamite, an idiot could enter a chemical laboratory and safely experiment with various kinds of explosives. Nature is impersonal; as the old saying goes, the rains from heaven fall alike on the just and on the unjust; but it is in the mind and heart of man that reside the sense of moral responsibility and the understanding of what that responsibility means.

If you plant a seed, a thought, in the mind of another man or woman, and that seed, as all such mental seeds do, enters like a thief in the night into his mind and finds lodgment therein, he may be totally unprepared to combat it when it fructifies as an effect, and it may actually ruin his life when it does so fructify; because in the meantime it has found an appropriate ground and has grown apace, blossoms forth as a flow of psychological force of which he becomes the unfortunate victim. For the ideas were not his own; they did not originate with him; he understands neither their origin nor the manner of controlling them. Who then is responsible, he or you? You, certainly.

Knowledge is a sacred thing, but it should be given out guardedly to those only who are prepared to understand it. There is nothing so dangerous as a misunderstanding of a truth. A downright falsity, a lie, is in its effects nothing in comparison, because a truth has the force of the universe behind it, and its action is impersonal; while the mind and moral sense instinctively repudiate and react against falsities, lies, and fallacies.

Does any one of you believe in his heart that all men are not merely capable of understanding the truths of the cosmos, but are morally fit to be the recipients of them? If such imparted truth should open doors for selfish action to the detriment of the recipient or of his fellows, as would almost certainly occur: I ask you, would it be right to give him such knowledge or the key to such knowledge, all to an unprepared man, perhaps a weakling of the most pitiable character? Should dangerous knowledge of importance be broadcast to all and sundry on the general principle that things take care of themselves, and that men have no moral responsibility for what they do? The merest modicum of common sense returns an emphatic Nay.

No man or woman should have any knowledge of dangerous importance unless and until he or she has some measure of self-control, and is fit to receive it, and to keep it as a sacred possession.

It is a common idea that it is right and proper to give everything to everybody, or, to change the figure of speech a bit, that anyone who knocks at the temple of knowledge may and ought by right to enter and do

as he pleases therein. But we say Nay. However, always are there men and women fit to hold, to contain, secret truths, the noblest teachings about the cosmos and man's inner constitution; and these are the Sages, the Masters and Guardians, of the Theosophical Movement, Guardians of holy Truth, who give it out to the world in degree and proportion as that world shows that it is prepared to receive it and to understand it, and who always refrain from injuring others. Mere physical injury of any kind is the least harm that might be done. It is the moral injury that could be wreaked upon others by selfish possessors of secret knowledge which is the danger.

For instance, I may tell a man a truth; that man receives that secret truth. If he is so mentally dense that he understands but little of what I tell him, and if it thus makes no particular impression on his mind, perhaps no great harm has been done; but if he be of mind keen, alert, and selfish, inevitably will he turn that knowledge to selfish uses, for himself and to the injury of his fellows, and he thus aids in their mental and moral undoing. Knowledge in such cases would be a curse not only to the recipient but to others as well.

There are some of the truths of Being which it is dangerous for all and sundry to receive without full and adequate preparation, for the reasons that I have stated. You know the old Greek fable of the searcher for truth. He sought for it everywhere, and at last the Holy One, the Goddess of Truth, raised the veil from her face, and the supernal splendor emanating there-

from smote him blind. He could not bear the light. The allegory obviously means no physical blindness, but a stunning and overwhelming of human understanding.

The deeper teachings concerning Nature and man have always been kept sacred, always been kept reserved for those who had proved themselves fit and ready to understand and capable of receiving them and keeping them holy and secret. No ancient teaching in these regards was ever given out indiscriminately in any age by any great teacher. Knowledge was always preceded by the necessary tests of intellectual and moral capacity; and these tests were in no cases some merely theatrical or fanciful ceremony, but a real and actual test of the man or of the woman in his or in her daily life, searching out the strength of the will and understanding, and their respective methods of reacting thereto.

Knowledge is a sacred thing, as I have said; but it can be prostituted to selfish ends.

The Theosophist, however, has no sympathy whatever with the idea that knowledge should be kept in secret and limited to a particular class of men, let us say to a particular priesthood of science, and that the public should be kept in real ignorance of the truths of being. The Theosophist has combatted that idea from the foundation of our Society in 1875. But you can receive nothing unless you have the receptive faculty in yourselves. You must have cultivated a certain power of understanding before you can understand; and thus while we say that knowledge is sacred

and should be held as such and communicated only to those fit and ready to receive it, this does not mean that knowledge should be kept in the hands of a certain caste, to be communicated to one's fellows only by driblets, when the holders of that knowledge think that such communication is proper. What we ask for is guarantees of fitness, and anyone possessing these guarantees and proving them is, we say, by law and by intrinsic fitness entitled to have all that we can give. But any retention of knowledge merely from motives of individual selfish or caste egoism, we claim to be wrong and improper.

Today, as in every age, men are searching for truth, and their approach is a scientific one. Great men, true-hearted thinkers, earnest researchers, are laboring daily, thinking nightly, as never before in the recorded history of the world: searching for a scientific formulation of the mysterious problems: Whence came we, What are we, Whither do we go?

But how much more is there not to learn! There is one thing that is good for us to remember: the more we know, the more we realize there is to know; the more we learn, the more we learn that there are still greater heights to climb. Great knowledge brings modesty; increasing knowledge brings increasing reverence for truth, which is the fundamental law of Nature. Only the small-minded, only those of limited understanding, only those who have not in themselves that burning love for truth and truth alone as founded upon the facts of the Cosmos, can establish imaginary bounds, and say: "Here truth ends! Farther we may

not, we cannot, go." Who can place limits to the soaring spirit of man?

Yet the science of only yesterday has built up barriers of materialistic thinking which have crippled the intuitions, warped the mental faculties, and have left to the men of our time a heritage of soulless dogmas. I have often wondered how many human minds have been ruined, and how many human souls have been emotionally degraded, by the old materialistic teaching of our fathers and grandfathers, that man is nothing but a fortuitous congeries of materials and of something somewhat more subtil, springing from this material, and called force. The idea that there is nothing within man or above man intimately connected with him but dead matter, and blind force arising out of dead matter in some perfectly incomprehensible manner, is an idea which in itself is degrading and unproductive of good. If you tell a man that he is nothing at all but an aimlessly evolved product of blindly acting forces and perfectly dead material, it will inevitably make him act accordingly. It is the old principle expressed under the common saying: Give a dog a bad name, and — he is very apt to become a bad dog.

No, what is needed is indeed a change in the hearts of men, a radical change in the minds of men. When this takes place, and if this change be directed by the forces of light and heart flowing from within, then the human race need have no fear of anything within or without. Knowledge may then be broadcast as widely as you will, and small danger if any at all could result from it: but alas, such a change in men's hearts, such

a change in men's minds and will, is a matter of long-time education, and comes not over night.

Yet a very great help towards its coming, and making for the breaking down of the barriers which prevent its coming in order that such a new spirit may enter into our hearts and live there and govern our conduct, is the public promulgation and acceptance by men, of the noble ideal of a spirit of reverence for truth so great that nothing will be held of value before it; and hence all religious and scientific discoveries would be placed as an impersonal offering upon the altar of truth. What a beautiful ideal for scientists, religionists, and philosophers to follow! There would then be no more enunciations of dogmatic hypotheses or theories, but a reverent placing of a life's work on the altar of that divine ideal, everlasting truth.

2. *Religion, Philosophy, and Science: Three Aspects of Truth*

H. P. BLAVATSKY, the chief founder of the Theosophical Society of modern times, did not originate from her own head, did not invent, the majestic religion-philosophy, which passes today under the name of Theosophy.

She was the representative of a certain Body of wise and spiritually-minded men, who chose her as their Messenger to the world in that century, on account of her great spiritual and intellectual gifts. She was to strike the keynote of certain age-old truths which had been forgotten during the passage of many ages; and the aggregate of these teachings which she gave forth in outline in her great work, *The Secret Doctrine,* was intended to be the doctrinal foundation of a Society which should gather into its ranks high-thinking men and women, those whose whole intent and purpose in life was to live manly and womanly, and to do all in their power to fulfil the destiny which every man and woman should aspire properly to fulfil.

Her great work, *The Secret Doctrine,* she called "the Synthesis of Science, Religion, and Philosophy." These words, to many who do not understand their full import, may perhaps at first blush seem somewhat am-

bitious words, perhaps rather grandiloquent. But I assure you that they were well chosen; because it must be obvious to every thinking person that there is but one Truth in this universe; and that that Truth, if it can be formulated at all, must take some specific doctrinal form, imbody itself in some particular cast, because the human mind works in that way.

It should not be imagined that *The Secret Doctrine* gives all the details of everything that is known. Such a supposition would be an absurdity; but it gives generalizations of the principles and of the lines of thought of the Ancient Wisdom, and these are illuminating and very helpful. Everyone should read that book. He who does not is really not keeping up with the times; and this will become very greatly more evident than now it is as time passes.

Now, the operations of the human consciousness are threefold, if you analyse them carefully; and these threefold operations men have designated by the words Religion, Philosophy, and Science. Religion comprises the mystical and the devotional (but not the emotional) faculties of man. Philosophy comprises faculties of the human mind which we generally call co-ordinating; in other words, the intellectual side, that which gathers together and formulates in intellectual fashion the truths which the consciousness intuits in or obtains from nature, often perhaps through a study of the outside world. And third is the operation of the human mind which classifies, through and by its inquisitive nature, the facts of the beings surrounding us, which it studies; and that is science.

We cannot separate the three fundamental operations of human consciousness, to wit, Religion, Science, and Philosophy, and put each in its own thought-tight compartment. They are not fundamentally three different things, but are like the three sides of a triangle, or like three views or ways of looking at Truth. Religion sees one side; science sees another side; philosophy sees a third side; and their unified vision proclaims the recondite facts of Being. We cannot separate them. It is unnatural to do so, and it is for that reason that the Theosophist refuses to do so.

And on what grounds do we say that these three are one and not three radically and intrinsically separate things? Because the supposition that they are separate would be contrary to everything we know of the facts of Nature and its fundamental Unity. It would be contrary to the fact that these three things evolve from man himself, who is a child and therefore a part of Nature, and who, therefore, expresses all Nature's laws and operations in himself, be they in germ or be they more or less developed. Religion, Philosophy, and Science are the three offsprings of the spirit of Man.

In order to get this absolute truth, this all-embracing and fundamental formulation of the truths of Being, into comprehensible shape, all the operations of the human consciousness must be reckoned with. The understanding must be satisfied, else we have inner dissatisfaction, mental discomfort, and we long for something else. We feel that we have not reached that ultimate truth. Not that we can understand that ultimate truth fully with our as yet undeveloped minds

— that would be absurd; for it would take an infinite mind to understand infinite truth; but we can have an ever-growing consciousness of Reality, an ever-developing perception and comprehension of the operations of the cosmos, and an ever-growing instinct, widening and broadening into full intellectual glory and consciousness, of the real nature of Being.

Truth must satisfy the entire nature of man if it be announced as such; otherwise we claim it is not truth; it is hypothesis; it is a theory; it is an imperfectly investigated fact of Nature, perhaps. In any case, if it do not satisfy the devotional, the intuitional, the mystical; if it do not satisfy the intellectual, the co-ordinating faculties in us; if it do not satisfy our inquisitive and penetrating mind, that is, our astral-physical mind or ordinary brain-consciousness — in other words, if it do not satisfy the three inner operations by and in and through which only, the human consciousness can act — then we claim there is something wrong, and we refuse to accept it otherwise than as a speculation, clever perhaps, possibly true, but not yet proved.

So then, if there be in the world a truly fundamental system of teaching, a religion-philosophy-science — which it must be if it comprises all the operations of human consciousness — then that Truth must include all these three. Otherwise it remains imperfect, and its dicta can be not otherwise than imperfect likewise.

When the Theosophical Society was founded, its members were the recipients in those days of much cheap ridicule, because we taught certain things which

were scientifically unfashionable; they were not popular; therefore they were not acceptable. Let us mention a few of these things, which are now, however, fully and commonly accepted.

We taught in those days, for instance, that there was such a thing as one man affecting another man by psychological methods, by suggestion, which today is popularly called 'hypnotism.' And oh how we were laughed at for believing in 'medieval superstition'! And yet, in a little while, it became a commonly accepted fact of knowledge; it became scientific because the scientists knew a little more about it. They are now not quite as dogmatic as then in rejecting truths which they themselves had not been fortunate enough to prove. We were told: "All that you people teach is *a priori* — from your own consciousness. It is not founded on investigations into Nature. Where are your proofs?" And we said: "The proofs are around you daily. Look, search, examine, investigate, follow out your own procedure in investigating Nature, and the abundance of proofs surrounding you will arouse your utmost astonishment."

Now, today, so common is this knowledge of psychologic elements, that all averagely educated men know something of that particular thing, 'hypnotism'; and in some countries, as in Germany and France, legislation has been passed regulating, and very properly regulating, the practice of psychological or psychic processes as affecting others.

Many years ago our Theosophical literature teemed with references to radiant energy proceeding from mat-

ter — from certain matters more than from others. And we received much cheap ridicule for this; much incredulity was shown regarding our claim. But now it is a fact of common knowledge. The researches of Becquerel, the Frenchman, and of Roentgen, the German who invented or found the X-rays, are now known by everybody.

Radium opened the eyes of scientists to the great varieties of the behavior of matter in many fields of scientific research, not merely in geology, but in astronomy and in chemistry, and generally speaking in all branches of philosophy or knowledge pertaining to the material or rather mineral portion of our earth.

We see everyday in the researches and in the advances and in the discoveries made in the scientific fields of thought, closer approximations to what we have taught, and we are very glad that it is so. We do not claim this priority of knowledge as a matter of self-justification. We claim it only as an illustration of our general theme, that between Theosophy and Science there can be no opposition. A proved fact is a truth; but let us be sure it is proved.

Take the case of Evolution, a subject which periodically arouses much interest and much comment, both favorable and unfavorable. For instance you remember the so-called 'evolution-trial' in Tennessee (1925). A certain man was tried in a court of law for teaching what was called the evolutionary doctrines of science; and other men took an opposite view, saying that evolution was not proved; but the other party said it was proved. These men who denied the fact, denied it supposedly

from religious motives, because the present evolutionary doctrines of modern science clash with the teachings of old-fashioned religion. But that is entirely beside the point. It is not the question at all, if we love Truth, whether some particular doctrine is or is not according to the dogmas or teachings of some church — whether it be a scientific church or a religious church! The only question we have to concern ourselves with is: Is it a fact? Is it true?

That is the Theosophical position. Therefore, there cannot ever be in Theosophy such an antinomy, such an opposition of sense or of meaning or of teaching, as is implied in the well-worn phrase, 'the conflict between Religion and Science.' To a Theosophist that notion is absurd. He says there must be something wrong either in the science or in the religion or in both. Let us find out where that twist is, where that wrong lies. Let us straighten it out or correct it. Let us get to the truth of these things. It is as easy to find truth as it is to find wrong; and the methods are very simple. They are: honesty of purpose first; next, an unbiased intelligence inclining neither to this side nor to that, but swayed only by the desire to arrive at the facts of Nature, the elucidation of the wonderful cosmos which surrounds us as expressed in its operations.

When we come to examine any particular part of the 'general world-process,' as the German philosophers call it — the operations of the cosmos around us — we should not hesitate to believe a thing because it is unfashionable or because someone who knows very much or thinks he knows very much says, "Oh! that is old

moldy medieval superstition!" We ask: Did the men of past ages know nothing? Are we the only ones who know anything? Has the human race in all the vast time behind us brought forth no great men who knew anything, who loved Nature and investigated her as our men of science love Nature and investigate her? The supposition is an absurdity. The facts of history all teach us to the contrary.

Similarly must we be open-minded to the reception of any new discovery. There is, of course, an instinctive feeling in us, which perhaps operates for our good in some ways, that we should not accept things offhand. It is in itself a good thing, and if this reluctance to accept some new truth were nothing but that, and were accompanied with a willingness to examine, then indeed it would be a wholly good thing. But when there is a sheer unwillingness to examine something new, it is evil; it is inimical to the best interests of the human race, and it is profoundly unphilosophical, therefore profoundly unscientific, and therefore profoundly irreligious.

These three divisions of the workings of human consciousness are natural, and therefore are the proper method of understanding the facts of Nature as our mind interprets them to us: Religion, Philosophy, Science. But, we repeat, unless the complete nature of man is brought to bear on these, unless these three cooperate in him completely, there is something wrong, and the mental precipitate will be dogmatism.

Let me give a few illustrations of what I mean by scientific dogmatism. I shall refer to three historical

rejections of truth, two of them by one of the most famous academies of science in the world then, and even so standing today: the French Academy of Science. Today nobody disbelieves the fact that stones fall to the earth from the skies — that meteorites fall. But for hundreds of years that fact was refused credence by the scientific authorities. It was laughed at; it was rejected; the reporters of the occurrences were openly called fools, idiots; and the great French physicist and astronomer, Arago, openly announced in the French Academy of Science that it was an impossibility for stones to fall from the skies. "Why," he said, "there are no stones in the skies. How then can stones fall?" Unmitigated dogmatism!

Our second illustration of this spirit: You remember something perhaps of the French painter and speculative physicist, Daguerre, the inventor of the daguerreotype — the first practical demonstration, perhaps, of the reality of photography. Daguerre was married; and his wife came to the family physician one day in great distress of mind. She told him: "Doctor, I am afraid my husband is going crazy. He told me last night that he was perfecting a process by which to fix pictures on a wall by means of the sunlight, and that there was a way of doing it; and he was going to discover a way by which pictures could also be fixed on metal or paper." And the doctor said, "Madame, I shall see your husband. Perhaps you have not reported correctly what he said."

And the physician saw Monsieur Daguerre and conversed with him; and he likewise left his presence

in great distress of mind, saying later to the wife: "Assuredly, Madame, your husband is mentally affected!"

But in a short time Daguerre had perfected his process; photography was invented; and this same eminent physicist, Arago, this time announced with approval the new discovery to the doubting French Academy of Science.

Third: Do you remember that when Edison brought forth his first phonograph, one of the eminent members of the same French Academy of Science, arose and denounced "these American methods of propaganda in advertising"? He said, "It is a clever trick of ventriloquism; the principle is utterly unscientific; it cannot be!" But in a few years practically everyone knew of the phonograph and many owned one.

It is good to hold things in abeyance of judgment until they satisfy all the faculties we have in us; but such rejection should not be off-hand. We should examine everything and hold fast to those things which appear to us as good. It may be that our intellectual capacities are not sufficient for us to know truth even when it is logically and properly presented to our minds; that is our misfortune. But we should not carry that spirit of indisposition to recognise something as true merely because it is new, or unfashionable, or unpopular, or unscientific, or irreligious, or unphilosophical, according to the standards of the day.

To return to the matter of the 'conflict' between Religion and Science. How many times in the past must you not have heard the question, 'When a man

dies, shall he live again?' You have looked to the scientists for some answer to this question, so momentous, apparently, to the individual; and you have received as replies only theoretical speculations; and rightly, coming from that source, because what other answer could they give? They do not know, and being honest men, they would not say.

Or you were told: "Go to the churches. That is their field of thought. We, scientists, search and investigate material nature only. It is to religion that belong by right the question and the theoretical explanation of the nature of the human soul and its destiny after death."

But this antinomy between science and religion should not be, because it is without basis in Nature itself. The antinomy is a historical one in Occidental Europe. It is not a natural one. If the one exist without the other, that is, if Science and Religion be considered as fundamentally divorced the one from the other, each then incomplete, theoretical answers given by either must of necessity be incomplete likewise and therefore insufficient. There is no need for such a contradiction, for such an opposition, for such an antagonism, for such a difference of system and of thought between these two, twin sister-faculties of the human consciousness.

This conception itself, this supposed fundamental antinomy or opposition between Religion and Science, or Religion and Philosophy, or between any two of these three, or among all three, makes directly for Atheism, loss of man's spiritual intuitions, and for a

growing sense in the human heart of despair and discouragement. The idea is an entire folly; it is not only useless but mischievous; and in no other part of the world, that is to say in no part of the world which has possessed religious thought of another type, does this totally unnecessary antinomy exist.

Therefore I say that no antinomy among these three exists in reality; and it has arisen only in the western world from the fact that occidental religion has long since lost the key to the teachings of its own religious Master; and in a very natural revolt from religious obscurantism and dogmatism, the scientists turned to that which alone seemed to give some promise of an adequate answer to their questions concerning the nature of Nature herself and of the nature of man — that is to say, to the physical world surrounding us.

Yet, penetrated as they were, more or less, with the dogmatic teachings and doctrines and beliefs of preceding centuries of occidental religious thought, they answered as far as they could honestly answer such inquiries, and that answer, as just pointed out, was in substance: 'Turn to the Church if you hunger after these things. We do not know, for that is not our sphere.' You see, this was a tacit recognition of the opinion that religion and science were fundamentally antagonistic.

Then turning to the Church, what answer did you receive from that quarter? That answer we all know.

Now to the Theosophist religion is both scientific and philosophical. It must be. It is the devotional and intuitional reachings and searchings after truth

of the human spirit. Theosophy itself is Religion; not *a* religion, but religion *per se* carried to the *nth* degree, and in its deeper and wider reaches no human mind can fully compass it. It is Philosophy, also; not *a* philosophy, but philosophy *per se* carried to its *nth* degree, and no human mind can fully compass it. It is Science; not *a* science, but science *per se,* carried to its *nth* degree, so that no human intellect can compass its bounds.

In the *American Magazine* there appeared some years ago (Sept., 1927) an interview with Dr. Michael Pupin, Professor of Electro-Mechanics at Columbia University, who is quoted as follows:

> Science finds that everything is a continuously developing and intelligent process. It reveals man as a being with a soul which is progressing more and more toward divinity in a universe of unbroken continuity. . . .
>
> In my opinion, all scientific evidence tends to show — not to prove, but to point toward the belief — that it is very unlikely that the soul of man is going to cease its existence when the body perishes. The law of continuity and the general scientific view of the universe tend, I think, to strengthen our belief that the human soul goes on existing, and developing after death.

Now there is much that is very fine in Dr. Michael Pupin's words; but we must point out that it is by no means a proof of human immortality if the human soul merely survive the dissolution of the physical body for a more or less prolonged period of time. Immortality means continuous and unending self-consciousness, and, strictly speaking, implies neither beginning nor end. Dr. Pupin says not a word about the begin-

ning of the human soul. Did it, or did it not, precede its present birth into this world? If so, whence came it? If not, how can it be immortal in only one direction, the *post-mortem* direction?

The soul may survive the body for a little while, some say; others again say, it may not survive it at all. Others again say that it had no existence before 'God' created it to animate the present physical body, but that when it dies it will have an eternity of existence. How can this last be? Is there such a reality as an eternity which begins and has no end in the other direction? The supposition is absurd.

Dr. Pupin continues:

> You see science is constantly revealing divinity and man's relationship to divinity. Science is, therefore, the highest form of human theology, the highest form of reasoning about God. Science leads us straight to a belief in God, and this is the foundation of religion.

Dr. Pupin is exceedingly optimistic in the view that he takes of the visioning by science on the part of other scientists, of the religious consciousness of man. I wonder how many scientists would agree with his views. Few, I fear; though I do fancy that a great many scientific men are inwardly convinced that the old materialistic ideas of the older scientific luminaries are about as dead as a door-nail; but this is not the same thing as believing that the higher form of reasoning about 'God' or that the higher form of human 'theology' is to be found in the teachings of Science.

As to the opinion that Science leads us straight to a 'belief in God' and that this is the 'foundation of

religion,' perhaps we might say that this is a somewhat unusual statement to make, for which I can see no actual foundation in the teachings of Science *as they exist today.*

Unquestionably were Science what it ought to be, and doubtless will be in the future, that is, the sister of Philosophy and Religion, these three forming but the three facets of the jewel of truth, as the mind of man understands truth, then might we say that Science would lead us straight to a knowledge of the Divine, which knowledge is the foundation of Religion. But likewise do I venture to say that such knowledge would be no dogmatic scientific theology of any kind, nor would it make for a mere 'belief in God.'

What would a religionist say in answer to Dr. Pupin's very remarkable claim that it is Science which proves God? And what is such a God, anyway? Whose God? What God? These are questions themselves demanding solution before we can afford to take things for granted because theoretically they may please us, and then say in a rather dogmatic tone, no matter how fine the words may be nor how noble the accompanying thoughts are, that "My work proves God even for you who are not in that work."

What might not the philosopher retort? Nay, this is accepting almost as a natural fact the antinomy between Religion and Science which we find it utterly impossible to accept. And I say again, until we abandon this fallacy which is founded on nothing but an outworn theory, then we shall continue to have this constant and totally unnecessary struggle between the two.

We could go on quoting for a long period of time, thus illustrating how necessary it is to examine before we judge, to be sure of our ground before we contemn, and at the same time to accept as truth only that which appeals to us as truth, appeals to us as satisfactory to the three states of our nature: the religious, the philosophic, and the scientific.

This is the road that open minds, eager for newer knowledge, for wider investigations into the spheres of being, should follow; for there is where man finds his true dignity as a thinker. Such an attitude is very scientific; it is very religious; it is profoundly philosophic; and it is with this attitude of mind, at least trying to hold this attitude of mind, that the genuine Theosophist approaches the study of Nature, no matter along what particular branch of scientific or other investigation his thoughts may take him.

And so I repeat: Religion and Science and Philosophy are not three things in themselves, existing so to say in physical or mental space, nor do they represent three intrinsically separate laws of the Cosmos, but are merely three manners of manifestation of the human consciousness. Unless each one of these three corroborates the other two, that is to say, unless Religion is scientific and philosophic; unless Science is religious and philosophic; unless Philosophy be likewise religious and scientific, there is something wrong somewhere. For these three form, as it were, but the three facets or sides of Truth, as the human constitution visions Truth. And if we within ourselves find contradictions as among these three, if we find our own minds

at war with ourselves about them, we can be positive that we have not yet found the true Ariadne's thread which will lead us out of the labyrinth of mere theory and hypothesis, into that still small path, which the Hindû Upanishads speak of as leading us directly to the heart of the Universe.

3. *The Trends of Modern Science*

THERE is a cleansing wind sweeping over the human mind in our days, a breath, as it were emanating from the spirit within; and the minds of men are beginning to respond to the messages which this wind is bringing to the understanding.

The ranks of the scientists also are as a matter of course feeling the call of these messages from the inner worlds. They sense the incoming of a new spirit over and into the understanding of men; and in consequence their theories of the cosmos are changing very greatly from what they were some few years ago.

In the building up of the scientific theories, which in our days are more or less outworn, the great researchers into the mysteries of physical Nature did their very best to interpret what they had discovered, in terms and formulae which might appeal to men's understanding; but without any mincing of words, I feel obliged to say that it was like a putting of new wine into old wine-skins, the old wine-skins being the prejudices and the ideas which had been inherited by all Europeans, those scientists included, from preceding centuries of thought prevailing in the Occident.

These new ideas have been fermenting now for

some three hundred years more or less, and are today bursting the old wine-skins in which they were confined. Old prejudices and ideas, once thought to be real interpretations of Nature, are now cast aside as totally inadequate.

There is an actual fermentation of ideas proceeding in the minds of scientific researchers today, a fermentation which is felt in the minds of mankind generally. It is significant of the breaking forth of a portion of the mighty powers of the human spirit, and actually signifies a wider opening of their understandings. It is, on the whole, a good thing; and, despite the rather numerous and perhaps regrettable side-lines of action we may be led into, nevertheless the general line of motion is in advance.

Some of the newer discoveries in physical science are indeed remarkable, and are beyond any possible anticipation that men might have had of the future some forty or fifty years ago. I do not allude merely to material inventions. They in their way are wonderful enough, but I allude here rather to the activity in speculation or theoretic thought which the minds of our greater scientists are occupied with; I mean in brief their attempts to find a somewhat adequate explanation of things not within the framework of the old materialistic theories, and thereby to formulate and build a newer and better philosophy in and of life, which really amounts to saying a new religio-philosophical science.

But the giving birth to this newer system of thought is by no means without confusion, and what

is, to many, rather severe birth-pangs. For having no definite clue to follow, our scientific thinkers know not yet how to achieve this. They are wandering in the dusk as it were, without clues.

And there are other difficulties which our scientists encounter, barriers which prevent the free spirit of impartial investigation. Our hard-working and enthusiastic zoologists, for instance, are faced with many difficulties which those who are not acquainted with these things probably never have heard of. These difficulties are not merely in uncovering the secrets of Nature and in the interpretation of these secrets, difficult as this work unquestionably is; they are faced also with difficulties of another kind. Brave men as they are, many of them, often they dare not risk telling the truth about all that they know or suspect, nor dare they in some cases risk telling what they have discovered, and the far-reaching conclusions which such discoveries often compel them to draw. Pray do not think that this is meant as an imputation of moral weakness. Conditions sometimes are exceedingly hard and unfair to these earnest men.

Let me read to you the words of Dr. Byron Cummings, Professor of Archaeology at the University of Arizona, during the course of an address delivered on New Year's day, 1926, before the convention of the American Association for the Advancement of Science. I read from a newspaper clipping, Dr. Cummings's words as given by David Dietz, special correspondent of the United News:

Full investigation and careful tabulation of results have too

often been retarded by the storm of ridicule and abuse that has been heaped upon the heads of those who brought to light anything unusual. Some of our leading anthropologists have condemned, without a hearing, facts that are really incontrovertible, and good men have been hounded from the profession by others who happened to hold the center of the stage at the time.

A few years ago, some United States geologists were making investigations in southern Arizona. I suggested to one that it would be a fine thing if he and his associates continued the investigation of an old lake-bed until they uncovered some fossil remains of man. The answer came back quick and straight:

"Not on your life. If we find any human bones in these fossil beds, we'll bury them, pack our luggage, and ask to be transferred to some other locality. We are not going to risk our professional reputation to find any Pleistocene man."

The Pleistocene Age is the geologic period which immediately preceded our own or Quaternary Age, and according to scientific chronology it came to an end some twenty-five thousand years ago. Dr. Cummings, as reported, continued as follows:

It seems a crime to some to bring anything to light that contradicts our published theories.

Men uncover the bones of Pleistocene animals in California, Arizona, and many other places and the finds are accepted without question, but if a human bone or implement is encountered in the same or similar strata, its presence must be accounted for in some other way.

And why? For the reason that the minds of our researchers are still under the influence of a moribund, that is of a dying, if not wholly dead, scheme of theoretic evolution. And that scheme is not true!

Yet despite the difficulties that are encountered, it is a very good thing that this change that I speak of is

taking place, because if we are to gain some real knowledge of the THINGS THAT ARE, some comprehension of reality, we must have a free and untrammeled understanding. Prejudices must be cast aside from us entirely; and the only things that we should hold to still, the while the outward things are in casting away, are those things which have stood the test of time through unnumbered centuries.

What are these things that endure and to which we should hold? They are the fundamental principles of ethics, the fundamental principles of thought and action which the human intellect instinctively recognises as founded on truth — these never vary. It may be that our understanding or comprehension of them, or rather our interpretation of them, may vary from age to age, but those great ethical principles, for instance the principle that right is right and that wrong is wrong, remain the same forever.

Similarly, the intellectual principle that what can be expressed in a logical category as based upon a fact of Nature, should be understood as an intellectual formulation, is a correct rule to follow. This is a vastly different thing from taking such a fact of Nature, or such facts of the cosmos in which we live, and forcing those facts to fit into preconceived theories or speculations such as one or more of the various researchers into physical Nature may have evolved from his own mind, in an attempt — honest doubtless, but an attempt only — at explaining the mysteries of Nature which from day to day the researchers come upon.

The scientists themselves are the first to recognise

this modern change of spirit; and we may say, may we not, that this readiness to recognise and follow the new, shows an expanding consciousness, a new life, a new spirit of growth? It is a good thing, for when an idea becomes so fixed, so crystallized, in the mind that almost nothing can displace it, then indeed there is the beginning of the entrance into social circles of a new church, with some new savior, or some new scheme of salvation, or both, and a new saddling upon the human spirit of still another religious system or another scientific system. It matters very little whether this system or church be a religious one or a scientific one, for the human spirit is crippled equally in either case.

We may indeed speak of a scientific church arising under such circumstances; but if such an unfortunate event had ever happened, then the scientific ideas ruling such an organized body, would have made it become a dogmatic religion of Science, and as such as perilous as any other dogmatic religion of whatever kind that the world has ever seen, perhaps even more so, because these scientists have stood to us and still stand to the mass of men, as the interpreters of the mysteries of the cosmos, and in some vague sense as high priests of truth.

This awakening of the mentality of men in the west, to the wonderful secrets of Nature, is a very significant fact indeed; and it dates very largely from the last quarter of the past century, from about 1875, when a great soul, a courageous mind, the carrier of a Message, H. P. Blavatsky, came to this Western world,

knocked at the doors of men's minds and hearts, opened their understandings by indomitable courage and a marvelously intelligent presentation of some wonderful things in religious philosophy. Men listened; and even those who did not listen at the time could not help seeing what those who listened accomplished. May we not, then, in sheer justice, place a large part of the noble responsibility for this changing of the outlook of the human mind where it rightly belongs, without any attempt to denigrate the work of others, or to arrogate to ourselves any meed of praise to which we are not justly entitled? H. P. Blavatsky it was who re-enunciated the wondrous Philosophy-Religion-Science, Theosophy, acting as the Messenger of those Sages, those Great Seers who hold in their keeping a formulation of the truths of Nature which they have put together and tested in age after age, sending their spirit into the abysses of Nature, searching out the roots of things, and following those roots through trunk and branch and stem and twig, until every detail of what they began to look for was found, every detail as far as our present universe goes.

This does not mean, however, that the Theosophist claims a monopoly of truth. No one who knows anything of Theosophy could accuse an honest adherent of our majestic religion-philosophy-science of making any such extravagant claim. But we do claim, and we prove that we have in our possession as our most sacred treasure, a formulation of the mysteries of being, which each one of us understands according to his capacities. It is the bounden duty of us all to take

this formulation of the universal truths which we have and ponder over them faithfully, thereby developing an understanding which grows ever larger and deeper.

But while the Theosophist claims no monopoly of truth, yet when we turn to the past history of the modern Theosophical Movement, we find that our Theosophical thinkers and writers had foreseen and written of more or less recent scientific discoveries that are today considered of the first importance in modern classified knowledge.

It may be of interest to discuss the way in which Theosophists look upon modern science, and also to describe somewhat of the enormous progress that has been made by scientific thinkers and investigators into Nature, leading them much more closely to the Theosophical philosophy than would have been possible a score of years ago.

The entire structure of modern scientific thinking, apart from the truths of Nature brought to light by research and investigation, is based and grounded upon ancient thought, mostly the thought of thinkers of ancient Hellas, or Greece. The atomic theories of those ancient philosophers, the biological theories of those ancient thinkers, the metaphysical and philosophical conceptions which those great men of olden times left on record in their different literatures, have come down to the thinkers of modern times, and have provided the bases and grounds of thought above spoken of.

It was during the awakening from the dark night of the early medieval period, that these old conceptions brought into existence new ideas in that benighted

epoch, gave thinking men new out-sights and in-sights, new visions into the nature of the universe surrounding them.

It was on these old and inspiring ideas, that, for instance, the early European chemists based the theory of their science as being founded on atoms, and the manifold action and interaction of those atoms. They took over the old ideas, sometimes misunderstanding them, but nevertheless the old ideas were there — the old vital thoughts — illuminating, constructive, awakening what one might call the scientific imagination and the intuitions of those various men. They did not have to begin absolutely anew or from the ground up. They took those old thoughts which they knew had been proved good and sound by generations of great ancient thinkers before them, and they constructed around those ideas what have become in our modern times respectively the science of biology, the science of chemistry, the science of physics, and many more such.

The greatest thought of all, however, lying in the background of these old conceptions, has escaped the perception of modern thinkers. And what is this greatest thought of all? — which, we add parenthetically, lies at the very basis of Theosophy. It is the absolute unity of the universe, the absolute oneness of being, the full and all-comprehensive nature of the cosmos, as being, every part of it, interlinked and interlocked with every other part, so that nothing is vagrant and wandering or estranged from any other part, but all hang together. And because the universe is obvious-

ly such (for we know nothing to the contrary of it), naturally the mentality of man, his intellectual faculties, man being a child of this universe, follow the same course of Necessity.

There is but one cosmos; there can be but one fundamental truth about that cosmos; and that truth is itself expressed in the formulation in logical categories of the facts of Nature which we know, and the further facts of Nature which we learn by investigation and research, and which fit into their proper places in the temple of Science, as into niches waiting to receive them. That is the grand conception which comprises the fundamental basis of all Theosophical thinking.

This being so, why is it that one sometimes hears a Theosophist say regarding such or another exposition of scientific thought: "This we can accept, that we cannot?" In answer we say that there is an immense difference between an established fact of Nature, of Being, and a hypothesis, a theory, a speculation, a scientific fad. All the great branches of modern scientific thought have all these defects, even as had (and as still has) the religious system of occidental Europe for the last seventeen or eighteen hundred years. Facts we accept; theories we accept or we reject according as we feel that they are true or untrue, or as we know that they are true or false, as the case may be.

So then when we contrast Theosophy and modern science, we do not do it in a spirit of opposition. On the other hand, when we say that Theosophy and modern science stand on the same ground, we do not say this because we are Theosophists and recognise in

the teachings of modern science some thing or some things which we like and therefore accept. We do it solely on the purely scientific ground — on the ground of established facts; because after all, that is what true science is — the classification and the establishment as actualities of the facts of Nature.

It is interesting to watch the progress of modern science and see how closely it is approaching to certain truths clearly enunciated or plainly hinted at by Theosophists during the past fifty or sixty years. Let me enumerate some fifteen of these remarkable foreshadowings of scientific discoveries by Theosophical thinkers:

1. That simple Materialism, comprising fortuity, chance, and dead matter, as producing life and consciousness, and as an explanation of life and being, is unscientific, unphilosophical, and impossible because contrary to Nature and reason; therefore intrinsically absurd.

As you must know, the old materialistic ideas are moribund, if not dead. With every day they are approaching their dissolution as a supposedly satisfying statement of the facts of life and being.

2. That other planets are inhabited by intelligent beings, or are not so inhabited, as the case may be; a fact that has been generally denied by astronomers, not from knowledge but from ignorance only of such planets — the only planet that we *do* know, our earth, producing living and intelligent beings. A complete denial, therefore, is irrational, purely speculative and theoretical, and based solely on supposedly true facts concerning atmosphere, cold or heat, etc., as these are

known on our planet *only*. There have always been, however, eminent astronomers who on the ground both of intuition and scientific probability have not only privately admitted the probable existence of other planets elsewhere which in all likelihood are inhabited as ours is, but have even courageously written of their belief.

3. The unreal nature of the physical universe or sphere; i. e., that all that we see and know with sensational perceptions, is its purely phenomenal appearance.

This statement, in its philosophical, scientific, and religious reaches, is more or less accepted by the greatest men of science today, perhaps not exactly in the form that we have set it forth in, but in principle.

It should be remembered, however, that when we speak of the 'unreal nature' of the physical universe, we do not mean that the physical universe is nonexistent, that is, that it does not exist. We mean first, that our understanding of it is unreal, because we know it not in its essence; and also that considered in its phenomenal aspects it is not a fundamental reality, because it is temporal, changing, and effectual, not causal. We do not know yet what it is, but our knowledge of it is growing, and when I say 'we' in these connexions, I am speaking from the standpoint of the ordinary scientific or philosophic or occidental religious researcher.

You will find an explanation of the actual and real nature of this physical universe in our majestic Theosophical philosophy; and you will also find a close approximation to that explanation in the wonderful

philosophic and religious systems of the far Orient; in those, that is, which have ages of existence behind them.

4. That 'Force' is etherealized 'Matter'; or, preferably, that 'matter' is equilibrated or 'crystallized' forces.

These last two items have now been fully admitted by philosophical scientific thinkers and researchers.

5. That electricity and magnetism, twins, are particular, i. e., corpuscular, formed of particles or corpuscles, and therefore are 'matter.' They are the phenomenal effects of noumenal Causes — ethereal matter or rather ethereal matters.

Ultramodern science has not yet come to the point where it is willing to acknowledge that magnetism, the alter-ego of electricity, as we say, is particular or corpuscular, as they now admit electricity is.

6. That the so-called 'modes of motion' or the forces of whilom scientists, considered as a definition of forces, was a vain and superficial effort to explain forces and energy by ticketing them in a new manner, which explained nothing at all: all forces, in fact, being simply moving and ethereal matters or vice versa.

7. That all matter is radiant, i. e., 'radio-active,' that is, it *radiates* — some forms or states of matter more than others. Note in this connexion the work and discoveries of Becquerel, Roentgen, the Curies, Rutherford and Soddy, etc., and the work on similar lines of other great men in other countries.

8. That light is corpuscular (as well as wave-like,

adds science) because it is a matter, a substance. Light is a material radiance, in fact.

9. That the transmutation of matters, hence of metals of course, is a fact in Nature, occurring hourly, momently, instantly; and continuously throughout time.

10. That the atom is a divisible body — i. e., the *chemical* or *physical* atom; it is, so to say, merely a smaller molecule.

Numbers 6, 7, 8, 9, and 10 have all been admitted by science, or practically admitted, in some cases in full; in other cases verging on full admission.

11. That there is a close analogical resemblance between the operations of the forces and matters working in an atom and those in a solar system; and that each atomic system is in its turn composed of physical infinitesimals or of sub-atoms, or of infra-atoms — called electrons and protons, etc., by science.

This Theosophical teaching is now in greater or less degree, and with certain modifications, admitted by progressive modern scientific thinkers.

12. That the nebular hypothesis as commonly accepted formerly was incomplete, insufficient as a workable hypothesis, although containing certain elements of truth.

This also is now admitted by science.

13. That the sun is neither burning nor even hot in the ordinary sense (nor is it cold), although it is *glowing* in one sense, superficially; nor does it recuperate its heat, such as it is, and light and other forces as formerly described by astronomers; nor by mere shrinkage of volume, nor by the impact of falling

meteors; nor do even the theories of atomic disintegration *fully* account for its vast and ceaseless expenditure of energy.

Much of this is now practically admitted by the scientists, at least in principle. All of it would be fully admitted were there some alternative explanation that they could accept. This they have not yet discovered or evolved from their understanding of the facts before them.

14. That storms — rain, hail, snow, wind — and drouths, likewise most of the earth's heat, are not wholly caused by or derived directly from solar energy, but result from electro-magnetic interplay of forces between the earth's mass and the 'meteoric masses,' or 'veil' above our atmosphere; such phenomena or effects being accompanied partly causally, partly effectually, by periodic expansion or dilation of the atmospheric body, and by periodic contractions thereof; and that the 'Glacial Periods' of geology, so called, are largely due to the same cause or causes.

In corroboration of this, let me say that some time ago some eminent scientists in the northern part of California were investigating the upper regions of our atmosphere, and to a certain extent they have come to the same conclusion as a result of their investigations.

15 and last. That Darwinism and Haeckelism are totally inadequate to explain and account for the mass of biological phenomena, from the evolutionary point of view; and that Darwin's and Haeckel's and Huxley's and Spencer's 'Natural Selection' and 'Survival of the Fittest' are not other than secondary or minor

operations of Nature, at the very best; that 'transformism' as taught by the speculative scientists is not Evolution — which is what the Ancient Wisdom does teach — and is both uncertain as a theory, because purely speculative, and really unscientific as a theory because based on data too few; it is therefore both incomplete and insufficient. Various chapters of this book will indicate to what a large extent scientists have moved in our direction.

I could readily produce and lay before you a hundred instances, possibly more, of foreshadowings of other facts of Nature and of Universal Being, which we have taught during the past forty-five or fifty years, and which are now on the highroad of acceptance by the scientific leaders of our time. However, let me mention just one more, before passing on. It is a very peculiar thing, according to modern European and American methods of thought, and too difficult to explain fully in the middle of a discourse. I refer to a statement by a British scientist, Sir Oliver Lodge, of a new theory of vision. As I remember Sir Oliver's statement, it was much to the effect that vision consisted of two factors; light radiating from an object, which entered the physical eye, and also a ray from within the man himself, which left the eye and centered upon the object. In other words what appears to have been in Sir Oliver Lodge's mind was the existence of a cross-current of etheric energy, both together comprising conscious vision — either one lacking, then vision failed.

Now this theory is but the old Platonic and Aris-

totelian doctrine of vision which was likewise accepted by most of the other Greek and Roman philosophers; and it seems to be very largely the theory of vision as held in other parts of the ancient world.

For many years great fun was made of the ancient theory of vision by opticians and physicists. I wonder why? Of course, it is always interesting to make fun of other men, whose ideas you do not understand or whose theories you do not comprehend, and I fear that this tendency towards ironical mockery was the sole reason and nothing more. As far as I can see, there was not a thing to say against the theory itself, but it did not harmonize with what had been discovered and was known up to that time of what is called the science of optics. It was quite common up to a few years ago to make fun of the scientific knowledge, such as it was, of the ancient philosophers; they were supposed to have known a little something, but not much, of Nature and its workings, and in consequence they have been supposed to have prattled like little children of the ideas, which, according to our modern notions, they had evolved from their own inner consciousness, and had saddled upon Nature, as being the actual course of Nature's workings.

According to that ancient theory of vision, the human soul sent forth something from the eyes, rays or something else like rays, which, leaving the eye, darted to the object looked at, and thence were reflected back into the eye on rays of light, bringing with this an image of the object which they had touched. At any rate this is the modern understanding of what

these ancient philosophers taught; and now we have one of the most eminent physicists apparently declaring his belief in the old Greek theory of optics — indeed, not only Greek, but belonging likewise to the entire ancient civilized world.

I have not seen an acknowledgment either by Sir Oliver Lodge or by anyone else of the unquestionable indebtedness of that very eminent gentleman to his Greek and Hindû predecessors.

The splendid and truly glorious achievements of modern scientific thinkers and workers have always received their due meed of recognition from our Theosophical thinkers — always. But I say again that we cannot accept all the various hypotheses, theories, speculations, or fads, when we know them to be such. Yet we recognise the marvelous advance that these great men of science have made in research and understanding of Nature in recent years. We are grateful to the martyrs in scientific research — and they have been many; for we love Truth. We are lovers of our fellow-men.

Much discussion takes place in these days in regard to the work of the scientists — both for and against; and the Theosophist follows all this with interest but also with the feeling that arguments are oftentimes based upon false premisses. Let me quote to you what was said by the Bishop of Ripon in an address given at Leeds, in England (1927), at a meeting of the British Association for the Advancement of Science. Certain extracts from this clergyman's address are very fine in ideas, in some respects, but on certain other points

we are inevitably compelled to differ from him. He said:

> We could get on very much more happily if aviation, wireless, television, and the like were advanced no further than at present.
>
> Dare I even suggest, at the risk of being lynched by some of my hearers, that the sum of human happiness, outside of scientific circles, would not necessarily be reduced if for, say, ten years every physical and chemical laboratory were closed and the patient and resourceful energy displayed in them transferred to recovering the lost art of getting together and finding a formula for making the ends meet in the scale of human life?
>
> It would give ninety-nine per cent. of us who are non-scientific some chance of assimilating the revolutionary knowledge which in the first quarter of this century one per cent. of the explorers have acquired. The one per cent. would have leisure to read up on one another's work; and all of us might go meanwhile in tardy quest of that wisdom which is other than and greater than knowledge, and without which knowledge may be a curse.
>
> As things stand today, we could get on without further additions for the present to our knowledge of nature. We cannot get on without a change of mind in man.

Let me point out, first of all, that it is not knowledge itself or *per se* which is wrong; but that it is the abuse of knowledge which is wrong, and abuse which will inevitably follow when knowledge falls into weak and evil minds. It is not aviation, nor television, nor the working at full pressure of the physical and chemical laboratories of the scientific men, which is wrong; but the misuse of the knowledge which is given in the world to all and sundry, without safeguards or reticences of any kind. Such misuse will inevitably follow under

such circumstances, as common experiences unfortunately show us regularly.

Why try to cripple the soaring of the human spirit, even for ten years? And then the idea that it would give ninety-nine per cent. of us who are non-scientific some chance of assimilating the scientific knowledge which in the first quarter of this century one per cent. have acquired, seems to me to be an entirely arbitrary conclusion, because there is no guarantee of any such assimilation of the acquired knowledge so called ever taking place; nor indeed have we any absolute certitude that it is knowledge *per se*. It may be merely imperfect information based upon the facts of Nature more or less inadequately investigated. This ten years' moratorium, as we might call it, might give the ninety-nine per cent. an unfortunate opportunity to accept as dogmatic truths the changing theories which the one per cent. have collected together or have evolved from their inner fora during the past hundred or one hundred and fifty years.

In one sense it is the salvation of science from dogmatism that it advances with gigantic strides and without interruptions of any kind, and that the theories of one day, then taught as dogmas and accepted as 'religious truths,' scientifically speaking so to say, by the people, should be shown perhaps in the next five years to be merely theoretical speculations. Nothing so much as this saves science from even greater dogmatism than it now unfortunately has in some respects, as shown by the writings of certain exponents of prevalent scientific theories. Such was the case as

regards transformist theories of biology in an attempt to explain progressive development and deriving man from the apes, a theory which is now very largely abandoned by biologists themselves.

The idea, however, that the one per cent. would have time, during this so-called scientific moratorium of ten years, to read up, as this eminent clergyman says, 'on one another's work,' is an excellent one and is a noble idea, and it is a pity that such a reading up of each other's work does not take place, because in point of fact our scientists today are too largely separated from the work and thoughts of each other, and this is one of the reasons why scientific theories today, generally speaking, are brought before the bar of public examination — an examination conducted by the scientists themselves and echoed and re-echoed by the greater part of the public.

The fundamental principles in all lines of scientific research today are in question as to whether they represent truths or untruths or half-truths — falsehood or reality. The bases of Science itself are called in question, and as a matter of fact this questioning is an excellent thing for the avoiding of dogmatism; for nothing is so easy as to slide into dogmatism, from the feeling that we have points of information which are actual realities.

It is an unfortunate tendency of the human mind to insist upon the value of its own understanding and the reality of the theories which it propounds. Hence arise dogmatism, impatience with the views of others, and if the time should be ripe and the mind should

be uninformed, the arising of persecution of those who differ from us. The lesson, therefore, that we should draw from it all is that we must ourselves find the key of Nature within ourselves, and of our own initiatives accept nothing that is taught to us as authoritative, except that which we inwardly find to be true.

It may be that our knowledge is small and our judgment weak in our present stage of evolution, and that we may reject or pass over some truth by following the noble rule of individual initiative and judgment; but we are, in following that rule, cultivating the faculties of our will and of our discrimination and of our own understanding; and very soon these faculties will become so strengthened by this exercise that the possibilities of error or of misjudging some truth of nature, will grow with the passage of time ever more and more remote, until finally these possibilities of error vanish.

Yes, the Bishop of Ripon is right in saying that Wisdom is other than and greater than knowledge and that without wisdom knowledge may be a curse. Wisdom is interior illumination. It is greater than the mere accumulation of scientific facts, which he calls knowledge, or the mere evolving of scientific theories, which he calls knowledge. Mere knowledge in that sense, or a blind following of theories stuffed into our minds by our modern-day methods of instruction, and also the ideas floating in the air, which enter into our minds and affect us similarly, psychological subjects as we all are, may actually be an automatic curse, not because information or vagrant ideas or any one of

various theories or so-called knowledge are wrong, but because they did not originate with us, and hence are alien to our will and even to our understanding, which fact makes us unfit properly to understand them and to use them aright as masters ourselves rather than as slaves.

Let us keep our laboratories open; let work in these laboratories go ahead at high pressure; but let there be an end of mere theory-spinning and hypothesis-forming! We do not object to the making of theories nor the forming of hypotheses, when these are useful in classifying the results of research and in attempting to deduce laws from them. We do not object to the most fervid and continuous use of the scientific imagination when that is helpful to the same ends. On the contrary we approve it very highly. What we object to is the postulating of theories and hypotheses as intrinsic parts of the cosmic process, in other words as representing the procedure of the universe itself. We feel that our attitude in this matter is that of the scientific leaders, those who are in virtually all cases great-minded and modest men.

Hence, let our scientific leaders say to us: This have I discovered; my interpretation of the fact is thus and so. I dare not call it a law of Nature, because I know not if it be such. I believe it to be. I offer you an hypothesis only. Accept it as such until someone who knows more than I about the matter, who has had more experience than I, shall tell you something wider or deeper, or both, regarding these same facts which I have investigated and have attempted to

formulate in the language of scientific hypothesis.

It is in that manner, it seems to us Theosophists, that the theories evolved in the minds of our great and often noble-minded scientific researchers should be stated for public acceptance or rejection, as the case may be. Such a truly modest and scientific attitude of mind is not only self-protective but is beneficial to the hearers as well.

4. *The Law of Analogy*

EVERY thinking man, whether he be of materialistic bent of mind, or mystical, or so-called scientific, must realize that because Nature proceeds in an orderly manner, its courses can be subjected to categories of logical thinking, provided we know those facts of Nature; and that these categories of logical thinking provide or furnish, indeed are, a system, which, proceeding from the spirit of man — child of the universe as he is — must therefore be said to proceed from that universe, thus illustrating through man's mentality, the orderly procedure of cosmical sequences.

Hence, provided that our method of thinking be based on the established facts of being, there can be no opposition, no contrast, no conflict between truth on the one hand and our formulation of truth on the other hand. Theosophy is such a formulation of truth. It is a marvelous aggregate of doctrines dealing with the fundamentals of the cosmos. It is not a new system; it is as old as the ages. If you look back into the literatures of historical periods, you will find it there, and if you possess the logical faculties of an orderly mental procedure, you will recognise

that, in other parts of the world, among nations of men whose literatures have not reached us, there must have been the same method of thinking, the same aspirations towards a universal truth, the same human mentality reducing the facts of being to logical formulation.

It would be an extraordinary fact, inexplicable indeed, if we could imagine a human mind or a body of men, who could think of something which no one had ever thought of before, and thus as being out of the cosmic life and procedure. I venture to say that the proposition is an unthinkable postulate. "There is nothing new under the sun," a wise old Hebrew is reported to have said; and our instinct tells us that that old saying is true.

Nature moves in cycles, and as these cycles run their rounds, nations and men rise, reach their maturity, give forth the flowers of their civilizations; and then, as the wheel of Time whirls on in its unceasing course, they in turn fall, to give place to men of newer blood who in turn develop their own systems of thought, originating them, as they falsely think — but in reality only stating again, albeit in the manner of their own racial genius, the same old truths that had been known in former ages. Yet it is true enough that *if we take the larger view* of destiny and time, we find that there is a gradual enlargement of what was known in the past — what was the child of the mind and spirit and heart of those who lived in ages long gone by.

Thus we see that the human intelligence operating through the ages, because based fundamentally on

cosmic factors, must function or operate analogically. What was regarded as a truth in former ages as based on natural fact, will be recognised on analogical or similar principles in a later age; because the fact remains that while human intelligence advances progressively to higher levels of understanding, yet such development is always on analogical lines based on the cosmic structure. For the universal organism operates as a consistent whole, and therefore one general pattern of action is discernible in all its parts throughout the entire cycle of manifested life.

Analogy, the much-abused but powerful instrument of human thinking, is now recognised by numerous thinkers, whether they will or whether they nill, as one of the master-keys opening Nature's portals. One general law and one common system of manifestation rule throughout the universe, and in this fact, so sublime and suggestive to our minds, is the meaning of that wonderful Hermetic axiom, "As it is above, so is it below; as it is below, so is it above." Or, expressed more fully: As things are above so are they in all intermediate spheres, and below. And as they are here below, or underneath us in planes still more material than ours is, so are they above us in planes vastly more spiritual than ours is. This does not imply identities in any collection of cases, but states the operation of uniform action and actions in what we call Nature; and any such uniform action, consistent always and continuous, having a beginning and proceeding to its cyclic end, we call a "law of Nature."

You know that the old Egyptians had some very

wonderful books, very few of which have come down to us except by allusion and by quotation, mostly to be found in the Greek and Latin classics. The foremost among these wonderful books were called the Books of Thoth; and the old Greeks translated the name of this Egyptian god Thoth by using the name of one of their old gods, Hermes, the Interpreter, and thence called these books the Hermetic books or writings— unquestionably with some well defined suggestion of their being interpretative of hid mysteries.

Most of these Hermetic books have been lost, many doubtless destroyed through the early religious bigotry and fanaticism that followed the downfall of the ancient Mediterranean 'Pagan' religious beliefs. But in any case one or two have survived, which probably have been more or less touched up by Christian hands; but underneath this retouching there still shines the splendor of the ancient thought, only it requires study to realize this ancient thought and to understand it. These old books cannot be understood as you run through them; they require earnest meditation, intellectual effort, mental exercise, in order to get at the real meaning which lies not alone in the words as the words run, but also behind the words; and it is by realizing this and studying them under this light that we may get the secret of the sense which those words imbody.

In one of these 'books,' a very short one, later called 'The Emerald Tablet,' we find the very ancient and universal teaching of Analogy. Its opening words are as follows:

True, without any error; certain, very true; That which is

Above, is as that which is below; and that which is below, is as That which is Above; for achieving the Wonders of the Universe. . . .

This marvelous ancient conception of the uniformity of universal Nature within and without, above and below, existed long before it was committed to writing in Egypt and Greece. It is one of the stock-teachings of mysticism of all antiquity, and so far as we know, of the entire ancient world, eastern and western. For instance we find the teaching given in the *Katha-Upanishad,* one of the Upanishads of India, which are among the most noble mystical writings which imbody the Theosophy of the Hindûs. In chapter third, verses 10 and 11, the Teacher is setting forth the absolutely essential identical nature of the universe and the human spirit-soul. The words there are:

What is here [that is to say in the world which our senses cognise] the same is there [that is to say in the invisible world of the spirit]; and what is there, the same is here. He who sees any difference here [that is to say between these two, between the invisible and the visible] goes from death to death.

'Tis by the consciousness that this [the universe we cognise] is to be understood, and then there is no difference at all [the meaning being that then the essential identity of all things is recognised]. He passes from death to death who sees any difference here.

The meaning is that he fails to recognise his essential identity with the spirit-life of the spaces, and is therefore plunged in illusion or *mâyâ,* which means that he is enchained by the attractions of matter, and therefore follows those attractions from birth to birth

in physical and ethereal bodies. That is to say, he is compelled to follow the ever-turning wheel of life in reincarnation after reincarnation until he learns the oneness of all things visible and invisible, through the developing of his inner self into intellectual understanding: recognising that the essence of the universe is the heart of his heart, the soul of his soul, and the spirit of his own spirit. Then, having obtained Vision, he is freed from the Wheel of Revolving Destiny. He has attained Wisdom and Freedom: he has become a Master of and in Life, instead of remaining a Slave of the Wheel.

What is in the Macrocosm or the great Universe, is in the microcosm or the little universe, whatever that little universe may be, in other words, in one of the smaller parts which compose the whole. What does this wonder-thought therefore mean and imply? This: that any one of the incomputable hosts of little lives or living entities, as a growing and learning thing, has infinity for its playground of progress and evolution, because in itself are contained all forces, latent or active, and all possibilities which inevitably seek their fields of action sooner or later, and therefore require infinity in space and eternity in time for the expression of incomputable possibilities.

There is no absolute gulf separating part from part anywhere; there are no jumping-off places beyond which is nothing, not anywhere. Everything is connected together, as I have said, by unbreakable bonds of law and order, of causation and of effectuation. Everything is expressing its own inherent powers as well as endless

capacities for learning, and thereby developing other powers in the latent, learning each time that it expresses them to express them more fully, and thereby to grow larger in comprehension inwardly, and more powerful in the expression outwardly of the spiritual forces within.

It is contrary to reason and logic to suppose that one part of Nature operates contrariwise or in contradictory action with any other part. If there be those so-called 'laws of Nature and Being,' they must function equally and consistently everywhere, and function everywhere similarly; and it is upon that one thought, that Nature, being a Unity in which there is no fundamental or intrinsic diversity anywhere, but in which there exists only the diversity of different entities proceeding towards a larger perfection, from the one fundamental impulse of the one universal life — it is upon this one thought that the noblest generalization of the ancient outlook was based. This majestic generalization to one fundamental law of life is understandable to human beings because they partake of that life; and the multitudinous variations that we see in the phenomenal world are but the ringing of all possible changes that Nature so lavishly provides for our admiration and utmost reverence.

It is upon such basic thoughts as these that the ancients reasoned and based their systems of Religion and Philosophy, and they are now discovered to have been right, and their reasoning was, from the above universally accepted bases, called deductive and analogical. These same bases are recognised today as

fundamental in all philosophical thinking; and it was merely in order to prove their consequent deductions and analogical discoveries, that they likewise used the inductive method of proceeding from a multitude of small particles in an attempt to check their former reasoning.

In the last century it was customary to teach that the deductive system of thinking was that of the ancient times, when men did not know enough about external Nature to think inductively; but that now all true thinking is done by induction, reasoning from details to generals; and that all we have to do is to have, mathematically speaking, an infinite number of details, and we shall, by gathering these details and correlating them into systems, reach an infinite truth. But how long would it not take to wander from detail to detail, through an infinite time, in order to reach an infinite truth!

Why did they misrepresent the ancient system of thinking? The idea in that expression was that the ancient thinkers were so weak in their intellectual capacities, that they merely imagined general truths and reasoned down from them, in an effort to make that reasoning accord and live in harmony and concord with the observed facts of Nature. But that is a sheer supposition and a false supposition, and was based on nothing but the purely human idea, 'We are the latest people, and therefore we must be the most advanced! Our method of thinking is better!' Perhaps it was for them. But the ancient thinkers, when they reasoned deductively, did not so think as they are alleged to

have thought. They in their endeavors to read some of the more hid truths of Nature, some of the more recondite, more secret truths, began their thinking from postulates considered as *fundamental laws of the human mind.*

As a matter of fact, these very methods of logic, deduction, induction, and analogy, were taken over by us from the Greek thinkers, the first of the European peoples who investigated logical differences by rules and taught them to us, rules which we wilfully misapplied in condemnation of our own masters! These historical facts it is well to recall, for the reason that these logical processes lie in the operations of the human consciousness itself, and our recognition of these facts explains a great many things that puzzle students of the old literatures.

It is good to notice that the methods of analogical thinking are again being used in modern scientific circles. I refer particularly to the matter of the structure of the atom. According to recent scientific theories, directed by the 'scientific imagination' — resulting in a hypothesis which has been found concordant with truth, thereby pursuing a purely analogical method — atoms are now believed to copy analogically the structure and general operations of the forces in the solar system which we know something about. This shows us that one of the finest and most powerful instruments of thought leads us truly on, if we be careful in our reasoning and do not reason by false analogies, to see that Nature is built upon a common plan in all its stages from the highest to the lowest, and that it there-

fore follows similar lines of action everywhere, in the great as in the small.

I might say in passing: had the documents upon which the Christian religion is said to be founded, been examined in the same spirit of impartiality that is shown today by investigators into the operations of Nature, we should know more now about the life of the great Nazarene, about the life of the great Syrian called Jesus, than we do know. But it is one of the weaknesses of the human mind, to wish to establish its own theories as actual truths, in other words to wish to establish its own prejudices as facts; and this we must be careful not to do.

Let us never forget, then, that the universe is one vast organism; there are no impassable barriers between body and body, between mind and mind, between entity and entity, all of them being children or offspring, that is, coherent parts, of that vast organism of the cosmos; and in consequence having and manifesting in the small all the potencies and powers and energies and forces that exist in that organic universe. The offspring is a replica, a copy in the minute, of the great; the offspring is the microcosm or little world, copying in all respects the Macrocosm or Great World.

It is along the lines of these forces and energies pouring forth from the heart of the universe ultimately, that proceed the psychic, the astral-vital, yea, in the higher beings also the intellectual and spiritual powers and qualities which man, as well as all other entities great or small, manifests.

This sublime fact of Nature: that all beings are

inextricably linked together on all the various planes, from the spiritual to the physical, we express by the term 'Universal Brotherhood.' We might call it by another name and say it is the Spiritual Oneness, or the Divine Oneness, of all that is. The Theosophist, recognising the working of this law upon the human plane, knows that every step forward that a brother takes, by so much the more is he himself advanced. Nay, more, he knows that by as much as any spiritual unit, any soul, progresses, by so much does it raise the entire body of beings to which it belongs.

This spiritual Oneness does not in any sense mean sheer identity of consciousness, but oneness in the sense that the innumerable hosts of thinking beings, not only on this planet, but on the innumerable other inhabited celestial bodies of the Universe, all spring from one common fountain of Life and are all pressing forward through the innumerable Gates of Life towards the same grandiose and ultimate Destiny — each such entity pursuing its own individual path, but growing itself greater as its consciousness develops, grows, evolves, expands; so that it recognises in fulness its true oneness in spirit, in sympathy, in destiny, in origin, with everything else. And part of that destiny is that each entity must become a fountain-head of innumerable other entities springing from it, just as a father gives birth to his child, and as that child gives birth to another, and just as the human soul gives birth to thoughts; for thoughts after all are ethereal matter, and therefore are things. Thus are the hosts of lives linked together in an endless chain.

A study of the Law of Analogy brings with it an ever greater realization of the fact that all things work together towards a common end. There is no real separation or disjunction between thing and thing, or between consciousness and consciousness; therefore none between world and world, and man and man. The farther we go from the heart of things, the farther we advance outwards from the splendor within, the more are our eyes blinded by the illusions of phenomenal things, because we lose the faculty of discrimination and of judgment and of intuitive power, for our conscious life is then centered in the multitude of things around us and beneath us, in the atomic world which enshrouds and surrounds us. Our consciousness is, so to say, become diffused and spread over multitudes, instead of being concentrated, as it always is at the heart of our being, in supernal light.

Yet such is the pathway of progress, and it is in this manner that we learn the nature of this universe surrounding us; and such course upwards from the invisible on each new cycle is each time a course of progress on a higher plane.

5. *The Atomic World*

THE science of chemistry, from the time of its renaissance in modern Europe, was founded upon old Greek thought; but I should like to illustrate, for purposes of future study and in order to avoid confusion, how a true thought may work along very well for a little while, and explain things admirably, and yet in view of new discoveries, have to be either modified or have to be renounced perhaps. In such case the fault lies not in the true thought itself, but in a misunderstanding of its nature and scope. We shall illustrate this by referring to the Atomic Theory.

You know the old Greeks had what they called their Atomistic philosophy, founded on the work of the philosophers Leucippus, Democritus, and Epicurus, more particularly of the former two. As a matter of fact, Leucippus enunciated a theory of the cosmos, enunciated a cosmology, which was later developed by Democritus, who lived some forty or fifty years later.

This Atomistic School had great vogue in ancient times. Lucretius, the noble Roman philosopher and poet, in his didactic poem, *On the Nature of Things,* teaches in splendid fashion of the same theory, al-

though he himself was rather a disciple of Epicurus, than directly of Democritus; Epicurus himself being an atomistic philosopher, and although deriving the main principle of his theory from Democritus, yet giving to his own philosophic and scientific ideas a more or less individualistic turn.

All these thinkers, who taught more or less exactly the same fundamental thoughts with regard to physiology, as science was called then — that is to say, the science of *physis* or Nature — taught that behind all material manifestation, behind all that we can know or sense, and behind those things which we do not yet know or sense, lie *indivisibles,* as they were called, which indivisibles were in their view the fundamental units of Being. Democritus called them Atoms — *atomoi,* a Greek word meaning 'indivisibles.' They taught further that these indivisibles are practically infinite in number in the cosmos, and that they are incomputable, immeasurable, incommensurable by any one or by all of the methods of mensuration in physical nature.

They said also that these 'atoms' existed in a 'void,' which they called *to kenon* (emptiness); and that through their various movements and attractions, through an innate power of self-growth, through magnetic approaches or magnetic repulsions, their manifold movements and operations composed the world, the cosmos, which we see around us.

You have there the basis of the atomic theory of modern chemistry; you have there the basis of the nebular hypothesis, and of hypotheses more or less

running upon the nebular hypothesis of Laplace and of Herschel and of others. But to these words there have been given meanings quite different from those meanings which Democritus implied in his usage of them.

What did Democritus mean by his *atomoi* and by his *kenon* or *emptiness?* He meant, first, spiritual monads, full and complete as entities, indivisible particles of substance containing in themselves the potentialities of all possible future development, self-moved, self-driven, as a man is by his character and the forces inherent in his spiritual and intellectual and physical natures.

As a man has his individual character by which he is impelled or motivated or driven to action, so the original meaning of Democritus in these respects was that the universe was composed of an infinite number of what modern philosophy calls, and Plato and Pythagoras for instance called, Monads, spiritual indivisible entities, the ultimates of being, self-conscious, spiritual monads.

Nor by his word *kenon,* or void, did he mean an utter emptiness, as we misconstrue that word. He meant the vast expanses of the spatial deeps, Space, in fact, which this infinite host of monads filled. He thus enunciated a theory truly majestic, and, I may add, truly Theosophical when it is properly understood.

Look at the notable difference, when we understand his meaning, between the misconstruing on the one side, by modern philosophers, of his atoms and his void: dead, unimpulsed, and acting blindly; and, on the other side, self-living monads, indivisible spiritual entities,

living in these spatial deeps, which by their attractions and repulsions and *inwardly* governed movements, produce the cosmos which we see around us.

In the last century, chemistry was a science which had reached its ultimate, as was thought, and concerning which nothing more of revolutionary character could be known. Why, I remember, in my youth, reading an article on chemistry, written by one of the foremost chemists of the day, in which the argument was that the marvelous discoveries of modern chemical science have proved that there is nothing more to be discovered of a fundamental nature in the entire field of chemical research; all further discoveries will be simply an amplification of what is already known! Let us learn a much-needed lesson from this: it is unsafe ever to say that knowledge has an ultimate, that it has boundaries that can never be surpassed. I venture to say that only dogmatism latent in the mind could suggest such a situation.

Then, as we all know, came the marvelous discoveries in radioactivity, upsetting the whole science, not indeed so far as the facts already discovered and proved are concerned, but in so far as the ideas and theories which made the science of that day are concerned; they indeed were completely upset.

Now it was this very discovery of radioactivity that, through a misunderstanding of the atomistic theory of Democritus, put this ancient Greek school of thought into the discard. When modern chemists discovered something of the nature of radiant matter, of radioactivity, such as in the two chemical elements,

uranium and thorium, and found the different generations of so-called disintegrations which these two elements were shown to follow; and when it was further discovered that these investigations proved that the chemical elements of modern science were composed of corpuscles which were neither indestructible nor indivisible, then the name 'atom,' as misapplied by modern science, was indeed recognised as a misnomer; and, perforce, the chemists of today are now seeking, in mind at least, if not in actual practice, for some other term which will more adequately describe this subtil something, this subtil element, which they feel, which they *know,* must exist within the confines of the atomic structure, but which they have not yet been able to demonstrate. And when they do find it, if they do find it, they shall then have reached not only into and beyond the confines of chemistry, as it is now understood, but will have gone into the very reaches, into the very structure, into the very secrets, of Mother Nature, and they will have become true alchemists. Moreover, they will be coming a step nearer to the original idea in the minds of those ancient Greek philosophers who taught of the 'Atoms' and the 'Void.'

The teaching of Theosophy is that everything actually is more or less radioactive, that is, that everything has at its heart or core an innate force which is its character, a force of a particular kind or quality. It is the pouring forth of these forces, each of its own particular kind or quality, which produces the various phenomena of Nature that we see around us. It is in the radioactivity emanating from the bosom of the

atom that come all the forces and matters which build our physical universe, through the passage from the invisible to the visible, and vice versa — a mystery, wonderful, imagination-provoking, and of the deepest interest to any thoughtful student of the physical structure of the world in which we live. It is these forces, passing from the invisible into the visible, which infill the cosmos with its energies, and which in consequence give our body its life and vitality, which vitalize the cells of which the body is composed, constructed as they are of these radioactive atoms.

The scientists have stumbled, it is true, almost by chance upon a few elements only whose radioactivity can be traced and measured with some degree of approximation of accuracy; but already our chemical investigators and our physicists are beginning to realize that there is no easy explanation of the fact that only a few elements in the great body of material compounds should be radioactive.

The Theosophical view, it would seem obvious then, is not on all fours with radioactive theories of modern science, which seems to limit its conception to the phases of explosive and disruptive energy of a certain few chemical elements. To the Theosophist radiation is a term of wide and universal application, of which the scientific visioning of radioactivity as a disintegration process is but one small corner.

Today our chemists are talking about the transmutation of elements as well as of metals. Some have already claimed to have transformed one element into another. But Nature, when left to herself, has de-

monstrated in the disintegration-products of the two particular metals, uranium and thorium, that by her own alchemical processes, she can transmute these two elements into another element, and that other element is lead.

Uranium has a disintegrating genealogy, if we may so call it, of fourteen steps or stages between uranium at the beginning, and lead at the end, each such stage formed by the atoms expelled from the nucleus of the uranium atom. The other element mentioned, thorium, has also a disintegrating genealogy of twelve steps between thorium at the beginning and lead at the end. These stages have been checked by modern experimentation.

But now mark here a most interesting fact. Lead derived from uranium has a lower atomic weight than ordinary lead; while the lead derived from thorium has a higher atomic weight than ordinary lead, that is, the lead of commerce, the lead of our ordinary mines; and it is now supposed that ordinary chemical or commercial lead is actually a product of the mixture of the other two, the lead from the uranium-base and the lead from the thorium-base.

Is not this extremely interesting? All these three varieties of lead are chemically identical, physically identical, spectroscopically identical. By the three main tests known they prove themselves to be lead; and yet we know that they are different — different in atomic weights. Look at the immense scope of thought, the avenues of speculation, that this situation opens up — just this illustration which we have given!

It is now known through the work of researchers in radioactive fields, that the atoms of these elements have an average life of immensely long period, while some of their so-called disintegration-products have an average life of an infinitesimal compass of human time. Let us illustrate our meaning by taking the element uranium, for instance. The uranium atom, it is estimated, has an average life-period of eight billion years; while the various disintegration-products into which the uranium atom breaks up or rather which it expels from its heart, according to Prof. Frederick Soddy,* have widely varying average life-periods. One of these disintegration-products, called radium c′, has an average life-period of one millionth of a second.

It has been discovered in the same way, by the exceedingly delicate methods now followed in alchemical science — which is what our modern science is fast becoming — that the thorium atom has an average life-period of twenty-five billion years; while one of its disintegration-products, thorium c′, has an average life-period of one hundred billionth of a second.

Let us make a few philosophical deductions from these facts, What do we mean by Time? We mean by Time the expression of the human consciousness's realization of the passage through it of the various procedures which happen around the thinking entity and affect its understanding. Time, in other words, is merely our conception or mental representation of the

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*Formerly professor of Chemistry at the Universities of Oxford and Aberdeen; retired 1936.

different stages of duration. Consequently, if we had another order of understanding, if our conception of time, for instance, belonged to some titanic intellect, to whom we on our globe here, for instance, would seem as seem to us the infinitesimal entities inhabiting an electron of an atom, then, under those circumstances, to such a titanic intellect, the entire life-cycle of our solar system would perhaps be a millionth of one of their seconds of time, or a billionth of such a second, or a trillionth of such a second! Time, in other words is an illusion — an old thought; the word 'illusion' not meaning something that does not exist, but meaning something that is not properly understood by us and reduced to such terms that our consciousness can take it in and understand it.

Our modern scientists talk very much of vibrations, and they give the vibrational rates of various kinds of waves, such as electric waves, and heat-waves, and light-waves, and ultra-violet rays, and of X-rays; and there are multitudes of others, says the Theosophist. These hard working researchers are now beginning to get some true knowledge of what these rays really are. They are now more and more, as time passes, inclining towards our ancient Theosophical teachings, that these 'rays' are not mere movements in or of a hypothetical ether. Movement *per se* is nothing because it is an abstraction. There can be no movement without a thing that moves. It is the moving thing that provides what we call movement. Movement is not a thing in itself. Similarly there can be no vibrations without something which vibrates.

Each one of these so-called waves, teaches Theosophy, is the activity of some minute entity, some infinitesimal body; never mind at the moment whether it be a low body or a high; the point is that the moving or vibration is produced by the action of some entity. These minute bodies vibrate or revolve, as the case may be, at a rate which we can estimate, but which is beyond human imagination to conceive or fully to figurate or follow with the brain-mind.

For instance, as given by our great physicists, the vibrations of electric waves range up to three thousand billions a second. These are the lowest, the grossest, and the most material of the five kinds of vibrating forces given in the list below. Heat-waves vibrate in a range from three thousand billions to eight hundred thousand billions a second. Light-waves vibrate from four hundred thousand billions to eight hundred thousand billion times a second. Ultra-violet rays vibrate from eight hundred thousand billion times a second to five million billion times a second. X-rays vibrate from four hundred million billions a second up to six billion billion times in one second.

In order to facilitate an understanding of these unfigurable numerical quantities, I subjoin them in columnar form:

Vibrations	Per Second
Electric Waves	up to 3,000 billions
Heat-Waves	3,000 billions to 800,000 billions
Light-Waves	400,000 billions to 800,000 billions
Ultra-Violet Rays	800,000 billions to 5,000,000 billions
X-Rays	400,000,000 billions to 6,000,000,000 billions

The X-rays, as you probably know, are chemical light-phenomena which our chemists and physicists have discovered as produced by the so-called γ-rays of uranium and thorium. There are three so-called 'rays' given off by the atoms of these elements in their disintegration. First, there is the α-ray, which is the proton or a part of the proton of the atom. Its penetrating power is but small, yet in it resides most of the radioactivity and most of the chemical and physical properties which the atoms of these two chemical elements exhibit.

The second class of rays which our chemists have discovered, are called the β-rays, which are electrons or perhaps atomic planets expelled from the atom. Their penetrating power is stronger than is that of the α-rays.

Then come the third class of rays called the γ-rays, which are, or which give off, the X-rays. Now, we may, if we please to follow the chemists' terminology, call these three classes of radiating force, 'rays'; but, as I have just said, they are — or most of them are — actually particles expelled from the atom, and it is their passage through intervening matter which produces the phenomena of light, which has caused them to be called rays.

Now these various forces which impel these various matters to action are derived from the monads more or less awakened and dwelling in these various matters as their inspiring and directing consciousnesses — because that is what matter is fundamentally, according to the Ancient Wisdom: sleeping monads, sleeping

consciousness-centers, sleeping spiritual atoms. Each physical atom is the atomic vehicle of its monad; and each atom is composed of similar monads of another lower order, evolutionally speaking. The atom thus forms in its unity the vehicle of the more awakened monad controlling it, which is, so to say, the god of its little atomic cosmos.

Throughout all the vast reaches of the cosmic hierarchy exist these monads in various stages of sleeping and awakening, so that we have the highest, the most awakened (for that hierarchy), and then the intermediate stages, down to the lowest steps of that hierarchical scale.

What is man, after all, but a monad more or less awakened? He indeed, in his present stage of evolution, may be considered as sleeping to monads higher than he; but as compared with the sleeping monads, the sleeping spiritual atoms or consciousness-centers which form the material frame-work and substance of the physical Cosmos, he walks like a god; and his impulses, his thoughts, his emotions, his ideals, his aspirations, his instinctive reachings out to higher, better, and nobler things, as well as the vibrations emanating from the different vehicles of his psychological organism in which he lives and works, affect not merely the matter of his own body, but electrically, magnetically, affect likewise the entire physical, mental, and spiritual sphere surrounding him, as far as those human vibrations of his can and do reach.

These spiritual consciousness-centers, in themselves, *per se,* are absolutely and fully awakened; but those

which form the lowest stages or steps of the cosmic hierarchies are in the present stage of evolution passing through the 'sleeping' phase of their long developmentary pilgrimage. The core of them, they themselves, as just said, are always fully awake in their own monadic sphere, but their vehicles, their lowest 'selves,' are not spiritually awakened to and on this our present plane.

Thus you can see why it is we say that consciousness is matter, and matter is consciousness; not in the old materialistic sense but in the sense of the Ancient Wisdom, that is, that there is life, or rather that there are lives, everywhere, throughout illimitable space and through illimitable duration, always working, everywhere operating, never inactive or still in the sense of the ceasing of these operations of the universe during the evolutional time-periods, cosmic, atomic, or intermediate.

Monads are mysterious to those who understand them not; they are deep wells of wondrous mystery even to the Theosophical student who has the key for understanding them, and who can penetrate behind the 'veils of Isis' even a little in order to understand what these wondrous entities — these monads, these consciousness-centers — really are in themselves.*

Every minutest speck of even physical matter that surrounds us is builded of these sleeping monads, as we call them, entities of spiritual nature at their core or heart, but spiritually sleeping on this plane, embryos as it were, whose destiny it is to develop into full-grown,

*This subject is developed further in Chapter 20.

self-conscious gods, the inspiring geniuses of future new cosmoi, of universes to follow ours in Duration.

It is in the very small that we must seek for the unriddling of the riddle of the origination of life, as well as in the macrocosmic. The physical atom of chemistry has been likened to a miniature solar system, consisting of a 'protonic' center, as it is sometimes called, which is the nucleus or the atomic sun, more minute but vastly more massive than the smaller bodies circling or whirling with vertiginous rapidity around that central nucleus, which latter bodies are called 'electrons.' And through the open doors of these electrons and protons, we may see still newer and sub-atomic universes into which our inquisitive and divinely inquiring minds may penetrate, as further knowledge comes to us.

An atom, like everything else, has its life-cycle, and at its end follows a course of slow disintegration or decay. We know that this is the case with the so-called radioactive bodies, such as uranium and thorium; and we know that with this disintegration of the structure of the atom, the nature of the atom changes — this process of decay actually being a transmutation of elementary chemical substance.

Now each of these protonic nuclei, is, so say the chemical scientists, a body, a corpuscle of positive electricity, and each of the electrons is a corpuscle or minute body of negative electricity. This means that the entire material framework of the universe is reduced to electrical charges of opposite polarity. When these charges neutralize each other we have material stability, or better, atomic stability. And I might say in passing

that it would seem probable that by changing the polarity, not merely of any atom, but of any particular mass of atoms, which is the same as saying of any particular aggregate of electrical charges, thereby you change all the physical and chemical properties of such mass; and if this takes place you may see matters behave in a very extraordinary manner!

Just as the atom has been likened to a miniature solar system, so in its turn may the solar system with its sun and planets be likened to an atom of cosmic dimensions. This seductive idea but repeats an old Hindû teaching. The ancient Hindû philosophies called it 'the Atom or Egg of Brahmâ.'

It is the teaching of Theosophy that the universe, being one self-contained organism, follows one line of fundamental action, and that any operation within it is felt throughout its whole; and that as these operations are many, all such operations must affect every particle, every corpuscle, in a similar manner; and therefore that Nature repeats herself in the small as in the great — in the atom as in the cosmos.

We see therein the religious, the scientific, and the philosophical rationale, the reason why the law of analogy, the powerful and ancient instrument of human thought, is a true one.

The atom, then, is a miniature of what the solar system is as the type, even as man, in a spiritual and psychological sense, is a miniature spiritual-psychological atom. Now then, atom as well as Cosmos, physical atom as well as physical solar system, are alike formed of smaller entities. So numerous are these latter that

they are wholly incomputable. Incommensurable is their number by any physical or human standards of mensuration. They are what is popularly called 'infinite.' And just as the number of atoms themselves is infinite, so there are innumerable 'Cosmic Atoms,' other universes outside of ours, formed more or less as ours is, differing among themselves as the leaves of a tree differ, or as men differ, no two being identical and yet all belonging to the same family or order of entities, and thus, in this sense, showing a ground-work of similarity approaching identity.

It is impossible to figurate in imagination the vast numbers of entities both great and small that infill the universe. Speaking of electrons and protons, Professor W. M. Thornton is quoted in *The Pharmaceutical Journal* of London as follows:

> In order to make the electrons in a drop of water just visible to the naked eye it would be necessary to magnify it to a hundred times the volume of the earth, and yet if all the protons in the earth were laced together so that no hollow cavity existed, they could be packed into a hand-bag which would then weigh six thousand billion tons.

Remember that these incomputable hosts of electrons are in reality, small entities, small lives, minute, infinitesimal. Nay more, you may say if you like that there are minute or infinitesimal lives inhabiting the atoms. Why not? Why should not the electrons, the atomic planets circling with vertiginous rapidity around their atomic sun, bear sensitive and conscious and thinking and intelligent and self-conscious creatures, even as our own planet, one of the cosmic electrons of

our own solar system, bears us in similar fashion around our own central luminary. Who dare say nay to the noble conception that even on these atomic electrons there may exist inhabitants or living entities of infinitesimal kind: living, thinking, feeling, entities, each of its kind, each of its own genus, so to say, each following its own destiny, its own upward line of evolution, and thereby repeating the law of universal nature.

As we raise our eyes to the skyey dome above us and realize that this so-called dome of space surrounds us on all sides, all that we see seems so great and large to us. But pause a moment, and realize that we judge through and from the nature of our own limited consciousness and interpret only by our own powers of undeveloped understanding.

From such thoughts we may perhaps realize that to these minute, these infinitesimal, entities which may inhabit the atomic spaces of our bodies, the skyey spaces in their cosmos may be as large, as grand, and as great as our own cosmic spaces are to us; and furthermore, that beyond our entire physical universe, which is all that is comprised within the bounds of our Milky Way, and which I call a cosmic molecule, and of which our solar systems, manifold and innumerable almost as they are, are the atoms; our entire physical cosmos, I say, may be but a molecule of some entity still more incomprehensibly vast and beyond the reaches of our most ambitious imagination. Who dare say nay? Who dare say that our solar system is not in the mental purview of some entity still more vastly grand, itself but an atom! All is relative.

Our earth is a planet circling around the sun — therefore one of our solar system's electrons. Our sun is the protonic aggregate of our solar system — a uni-nuclear system because we have but one sun; yet we know from astronomical study that some solar systems evidently have two or perhaps more suns, in each and all cases composed of the protons forming them, and in which reside the mass and the radio-activity of each such system.

Our solar system therefore being a cosmic atom, then the molecule to which it belongs, following analogical reasoning, is all other suns and systems that are encompassed within the encircling zone of the Milky Way; while the other vast universes out in the spaces beyond ours, in their turn are molecules, and thus form the incomparably larger aggregate corpus of some Entity still more incomprehensibly vast!

Consciousness is incommensurable. It cannot be measured by any physical methods of mensuration. We can know consciousness only by consciousness, for it approaches the ultimate mystery of the universe. Hence, size, volume, bulk of physical matters or matter, do not control either its nature or its field of action. It is where it is and it can manifest everywhere.

6. *Evolution and Transformism*

MAN is a mystery; a mystery to the inquiring and investigating mind of the researcher into Nature; but more so indeed is man a mystery to himself; and because this mystery exists, due to lack of proper research and because of insufficient investigation into his sevenfold constitution, therefore have we the various and the varying ways of looking at man himself, and of his looking at the Cosmos, of which he is, on this earth, the most intelligent offspring.

Yet there is a solution of this mystery — a solution which is not new, which is as old as, yea older than, the enduring hills, and which again in this our age has been given forth through the medium of the Theosophical philosophy.

Man, child of the universe, nursling of destiny, stands, so far as his conception of his place in the Cosmos is concerned, between two vast spheres, two immense universes, between the Cosmos and the atom of physical matter — the one sphere of cosmical, the other of infinitesimal magnitude. He stands thus because he so sees himself, but only because he so sees

himself. I mean that it is on account of his having attained his present stage in his long evolutionary journey that he so conceives of himself as holding this intermediate point, and of occupying it, and from these two universes drawing the life-springs of the understanding which dignify him as man.

But our majestic, age-old philosophy-science-religion teaches us that there are beings so much greater and higher than man is, and beings so much smaller and less than he, that in reality, in each and every such case of comparison, he himself in turn stands, with his world and his cosmos, as himself the one or the other of these extremes to such greater or smaller entities.

You see, it is a question of relativity. In order to understand it more clearly we must cleanse our minds from the old ideas instilled into them by false education, both religious and scientific, yes and philosophic; also must we understand that man's is not the only mind which can conceive universal things, and that his status in the universal Cosmos is not the only one of supreme importance, as he foolishly but perhaps naturally imagines it to be.

Universal life is infinite in its manifestation in endless forms, and manifested beings are incomputable in number; and who dare say that man, noble thinker as he truly is, is yet the only one in the boundless fields of space who can think clearly and imagine rightly and intuit truth? Such egoistic notions of our uniqueness in the scheme of life are really a form of insanity; but the mere fact that we can understand

this egoism and struggle against it, and abandon it, shows that we ourselves are not insane.

Therefore, since both in the very small and in the very great, consciousnesses exist and fill all space, we are their children, their evolving offspring; and, moreover, in so far as the small universe is concerned, the microcosm, that is to say, within certain reaches, and within certain frontiers, we as individuals are likewise parents of offspring occupying to us the same relative position that we occupy to those greater consciousnesses of which we speak.

Biologists today compute that in the body of man there are some twenty-six trillion living cells, more or less — living things, physiological engines — out of which his body is built; and these cells in their turn are composed of chemical molecules, that is of still smaller particles or corpuscles of matter; and these molecules in their turn again are composed of still smaller entities called atoms; and these atoms in their turn are composed of things still smaller, today called protons and electrons; and for all we may know, these sub-atomic particles, supposed to be the ultimate particles of matter, are themselves divisible and composed of entities still more minute! Is this the end, the finish, the jumping-off place? Are there particles or corpuscles still smaller than these? Who can say? If we are to judge by the past, we are driven to suppose that the end is not reached.

Where dare one say that consciousness ends or begins? Is it of such a nature that we can or must suppose that it has a beginning, or reaches an end?

If so, what is there beyond it, or above it, or below it? The idea seems to me to be fantastic. If consciousness of any kind, man's or any other, have a true limit in itself, then the power of our understanding would not be what it is even in our present relatively undeveloped stage of evolution. We could have no intellectual or spiritual reaches into these wider fields of thought; but we should reach frontiers of consciousness, and we should indeed know them as limits, jumping-off places. Indeed and in fact we then could even not conceive of a beyond, because our consciousness would end there.

We sense something of limitations along these lines in our ordinary brain-functioning, because our brain is in itself a limited portion of physical matter; but every thinking individual, if he examine himself carefully and study his own experiences, must realize that there resides in man something which is boundless, something which he has never fathomed, something which tells him always, "Come up higher. Go up farther. Reach farther and farther still into the beyond. Cast all that has a limit aside, for in such case it does not belong to your Higher Self."

This consciousness, we say, is the working of the spiritual self of man in him, the operation in his psychological nature of what we call the spiritual monad, the ultimate for him in this our hierarchy of nature only, for that spiritual monad is the center of his being, and in itself knows no limits, no boundaries, no frontiers, for it is pure consciousness.

Evolution — the drive to betterment, the urge to superiority! If we choose to look at it as the old ma-

terialists did, then it means superiority over our fellowmen for our own advantage; but if we choose to look at it as it is, according to the facts of Nature, as we learn them and according to the instincts of our own being, it then means self-superiority in the sense of rising on the ladder of life ever higher, with expanding vision, with expanding faculties, with expanding sympathies, growing greater — not merely in the physical apparatuses of thinking, not merely in the vehicle, but growing greater from the spiritual core of our being; in other words, opening up for that spiritual essence within us wider doors for it to pass its rays through, down into our personal minds, enlightening us and leading us upwards and onwards, ever higher, illimitably through the various cosmical periods and fields of evolution, which the monad follows along the courses of destiny.

When we speak of the evolution of man, we say that as one of the spiritual-psychical-physical corpuscles of the general Cosmos — as the microcosm of the macrocosm, the little-world offspring of the Great World — he merely follows the same operations of Nature that the Cosmos is impulsed, impelled, compelled, to follow: development, growth from within outwards, throwing outwards into manifestation as organic activity, as expression in organs, so far as his physical body is concerned, the functions within, the impulses within, the drive, the urge to expression, to manifest, which is within. That, expressed in few words, is the ancient teaching of evolution.

Now let us take up the question of the evolution of

animate beings on this earth more definitely from the Theosophical standpoint than we have hitherto done. We use the word strictly in its etymological sense, as an unwrapping, an unrolling, or a coming out of that which previously had been inwrapped or inrolled; nor do we mean by evolution the mere adding of physiological or morphological detail to other similar details, or of variation to variation, or, on the mental plane, of mere experience to other mere experiences; which would be, as it were, naught but a putting of bricks upon an inchoate, formless, and shapeless pile of other bricks previously so placed together.

No, evolution is the manifestation of the inherent powers and forces of evolving entities, be those entities what they may: gods, or the human race, or other races of animate entities below the human. It is a coming forth of that which previously had been involved or inwrapped; this we call evolution. It is the striving of the innate, of the inherent, of the invisible, to express itself in the manifested world commonly called the visible world. It is the drive, the urge, of the inner entity to express itself outwardly. It is a breaking down of barriers in order to permit that self-expression; the opening of doors, as it were, into temples still more vast of knowledge and wisdom than those in which the entity previously had learned certain lessons. It is this rather than any mere adding of detail to detail, of variation to variation, be such morphological or physiological. Evolution is a cosmical, a universal, movement to betterment.

All entities that infill space are following a path to

higher things, all are delivering themselves from within of that which is locked up within them. All are pouring forth the myriad-form lives which they contain — their inner selves and their thought-forms — their vehicles slavishly following the courses that these entities run.

Contrast with this conception the definition of evolution as found in the *Encyclopedia Britannica,* for instance: "A natural history of the Cosmos, including organic beings, expressed in physical terms as a mechanical process."

The Theosophist rejects that definition; first, because it leaves out the main characteristic of evolution, which is unfolding from the less to the greater. It is not a definition of evolution; it is simply a statement of things we knew before, and it says nothing of development towards higher things.

Second, he rejects it on the ground that it is a merely mechanical and purely theoretical explanation of things that should be considered by the different sciences in their own various departments, and it expresses no unification of those sciences or expresses it only in terms of dead matter, formed of atoms — helter-skelter driven together by fortuitous action.

Now it matters very little, unless we choose to be sticklers over words, whether we say that evolution is the becoming the simple from the complex; or complexity resulting from simplicity. It probably is both, depending upon the way you look at it. The main thought is that at the core or heart of every animate entity, there is a power — may I say a force; an energy, perhaps, may be a better word — at any rate a princi-

ple of *self-growth,* which needs but the proper environment to bring forth all that is in it. You may plant a seed in the ground, and unless it has its due amount of water and sunshine, it will die. But give it what it needs, let it have the proper environment, and it brings forth its flower and its fruit, which produce others of its own kind. It brings out that which is within it. Yet environment alone cannot produce the flower. *There must be an intelligent entity to act upon environment.*

Thus man, the evolving Monad, the inner, spiritual entity, acts upon Nature, acts upon environment, upon surroundings and circumstances, which automatically react, strongly or weakly as the case may be. Environment in a sense is an evolutionary stimulus, allowing the expression, as far as its influences can reach, of the latent powers of the entity within the physical body. Herein we find the true secret of evolution.

Therefore when I say Theosophists are evolutionists, this does not mean that Theosophy teaches evolution or the growth in progressive development of an evolving entity in the sense that that entity grows or learns through mental or physical accretions: that is to say, that evolution consists merely in adding experience to experience; or detail to detail, if the physical body be concerned; in the sense that a laborer will add brick to brick in the building of a house, until the entire edifice is completed. That idea we completely reject, because it is not what our studies show us to be the facts of nature. Growth — whether physical or mental or spiritual — is not a continuously enlarged pile, either of

experiences, or of variation following upon variation in physical structure. That idea is essentially and purely mechanical, and offers more problems for solution than the so-called 'riddle of life' which it might attempt to explain.

Evolution with us, on the contrary is, as said before, the unwrapping, the unfolding, the flowing forth, of that which is sleeping or latent as seed or as faculty in the entity itself, and this works along three lines which are coincident, contemporaneous, and fully connected in all ways: an evolution of the spiritual nature of the developing creature taking place on spiritual planes; an evolution or unfolding of the intermediate nature of the creature — in man the psycho-mental part of his constitution; and a vital-astral-physical evolution, resulting in a body or vehicle increasingly fit for the expression of the powers appearing or unfolding in the intermediate and spiritual parts of the developing entity.

Hence, the Theosophist, in speaking of evolution, of necessity considers the destiny and evolution of the inner parts of the being as by far the most important, because the evolution or perfecting of the physical body has no other purpose, object, or end, than to provide a vehicle, progressively more fit to express adequately the powers of the inner nature. Evolution is thus the drive or urge or effort of the inner entity to express itself in vehicles growing gradually and continuously and steadily fitter and fitter for it.

Professor Bateson, a well-known British scientist, has expressed the idea, somewhat crudely, we think, but

nevertheless graphically, by calling it the 'unpacking of an original complex.' Turn to a flower or to the seed of a tree. The flower unfolds from its bud and finally attains its bloom, charming both by its beauty and perfume; we see here the unwrapping of what was latent in the seed, later in the bud, later in the bloom. Or again, with the seed of a tree, an acorn for instance: the acorn contains in itself all the potentialities of the oak which it will finally produce: the root-system, the trunk, branches and leaves, and the numerous fruits, other acorns, which it is its destiny finally to produce, and which in their turn will produce other oaks.

Evolution is one of the oldest doctrines that man has ever evolved from his spiritual-mental nature; because evolution properly described is merely a formulated expression of the operations of the Cosmos. Every one of the six systems of Hindû philosophy is evolutionist in character, or constructed along that line. All the great Greek thinkers and the Roman thinkers of large intellectual capacity, all taught evolutionary doctrines, along the lines that I have shown.

But this ancient doctrine of evolution is not the evolution of modern science either in its view of man or in its view of the Cosmos. What then is the so-called evolutionism so popular today and miscalled 'evolution?' It is really 'transformism' — an adopted French word; and the French very properly, very logically, and very rightly, so call it; because it *is* transformism. Now then, what is the difference between this and evolution?

Reduced to simple language, transformism is the doctrine that an unintelligent, dead, non-vitalized, unim-

pulsed cosmos, whose corpuscles are driven hither and yon by haphazard chance, can collect itself into the forms of innumerable sub-bodies, not only on our earth, but everywhere else, these sub-bodies on our earth being called animate entities, all which grow to nobler things, how no one knows, therefore no one can say. It is a theory, it is an hypothesis. It is, in short, the doctrine that things grow into other things unguided by either innate purpose or inner urge. How? Nobody knows.

How can a haphazard, helter-skelter universe produce law and order, and follow direction, and suffer consequences, results strictly following causes? It is the nightmare of a lunatic. We reject the idea. We reject it because it is unphilosophical, because it is unscientific, and likewise because it is irreligious in the Theosophical sense.

Thus we Theosophists are evolutionists but we are emphatically not transformists. We declare that there is development; the slow change through the ages of one being — not into another thing or being, but into an increasingly perfected form *of itself*. That is true evolution. That we believe in. But the idea that one thing can be transformed into another thing is like saying to someone: give me a pile of material — so much wire, so much wood, so much ivory, so much varnish, and a few other things — and just watch that pile evolve into a piano! It never will. That is transformism reduced to simple language; and we reject it.

There is an old Kabbalistic axiom, often quoted in our Theosophical works, which runs as follows: "The stone becomes a plant; the plant a beast; the

beast a man; and the man a god." To which we may say, verily so it is! But we do not mean here that the literal form of these words should be taken in the sense in which they inevitably will be taken by those who are not instructed to understand them. The saying does not mean that these words shall be construed in the way in which our modern scientists would construe them, as expressing a perfect Darwinism; not at all.

First, the allusion is to the Monad expressing itself through its lowest vehicle, not living in it, but overruling it, working through it, sending a ray down into the pit, as it were, of its lowest body, in this case the stone. The Monad provides the invigorating life-force, giving to it, the stone, which is composed of other hosts of infinitesimals, its vital ray; and when it is said that the stone becomes a plant, it means that the infinitesimal entities forming and composing the stone have been evolved to express that invigorating ray on a higher plane as a plant; but the inner life and illumination of the Monad directing the whole procedure as a unity never abandons its own high plane.

When the saying continues that the plant becomes a beast, it means that the plant becomes a beast because the vehicle expressing the invigorating ray from the Monad has become fit for that still higher work. The infinitesimal entities forming the plant have become still more evolved or more expressive of the vital ray, and when this occurs they compose and form the beast-body, having passed beyond the stage of expressing the plant or the stone.

When the beast becomes a man, as the saying runs on, we do not mean that man sprang from the beasts, whether from apes or monkeys, or beneath these from the lower mammals, according to the now more or less outworn theory of Darwinism, which certain great men of modern science are nevertheless attempting to resuscitate. No. We mean two things: First, that the inner sun, the inspiriting and invigorating Monad, abiding always in its own sphere, but sending its ray, its luminousness, down into matter, thereby gives matter kinetic life and the upward urge, and in this way builds for itself ever fitter vehicles through which to express itself. And second, that each such fitter vehicle was built up — how? By and through the infinitesimal lives which at one period of their existence had lived previously in the beast-body, which they composed; and before this in the plant which they composed; and before this in the stone which they composed; and lower than the stone, says the Theosophist, these infinitesimal lives manifested the Monad in the three worlds of the Elementals.

Try to seize the idea of this progressive development from within outwards; it is really easy to understand in its first principles. We do not teach that a stone literally metamorphoses itself into a plant and then into a beast at some specified time. No! Or again, from a beast to a man. Again no. Or from a man into a god. No again!

The physical body, a congeries of living infinitesimals as it is, itself never becomes a god — which such a literal construction would make it become. It is a

transitory and temporal aggregate of these infinitesimals: in reality a form and a name and nothing more — the *nâma-rûpa* of Hindû philosophy. But these infinitesimals which compose the body, being growing and learning and advancing lives, grow fitter and ever more fit to express the nobler faculties of the Genius over-ruling and illuminating them, and thus pass by what the ancients called metempsychosis into the composition of the bodies of the respective higher stages. That Genius, in the case of the infinitesimals composing man's body, is man's spiritual nature, for Genius and Monad are virtually equivalent in the meaning I am using here.

Compare this logical and comprehensive doctrine with the scientific doctrine or hypothesis of transformism: i. e., that, following various supposed 'laws of Nature' operating in individuals, one thing is transformed into another thing. Thus stones will become trees through transforming themselves into trees; trees will become beasts by transforming themselves through change into beasts; beasts will become men by transforming themselves through change into men. Now, the biological scientists do not say that; they do not put it in that fashion; of course not; it is too palpably grotesque. But it illustrates the sheer meaning of the word 'transformism.'

Charles Darwin, for instance, who had such great vogue in scientific circles for so many years, thought that man evolved from the beast-kingdom by various natural biological factors operating in that kingdom and as expressed in the individual beast or animate en-

tity, as the case may be, or perhaps more primitively in the vegetable kingdom. He specified as operative causes more particularly what he called 'Natural Selection,' resulting in the survival of the fittest to survive in their particular environment and in the special circumstances which they had to meet.

His ideas were generally based on the speculations — some of them exceedingly fine — of the Frenchman, Lamarck, who taught what has since been called the theory of acquired or favorable characteristics; that is to say, that an animate entity, by acting upon nature and from the reaction of surrounding natural entities and laws upon it, acquired certain favorable characteristics, which were inherited and passed on to the offspring; and as these characteristics were always for the betterment of the individual acquiring them therefore there was a gradual advance and progress of that particular racial strain.

Let me illustrate this idea of acquired or favorable characteristics by a bit of old doggerel that I once humorously committed to memory:

> A deer had a neck that was longer by half
> Than the rest of his family's (try not to laugh),
> And by stretching and stretching became a giraffe,
> Which nobody can deny!

But the Theosophist does deny it; finds it incomprehensible how any deer, by stretching its neck, even if it be somewhat longer than the average, in browsing upon the overhanging branches of trees, should be able to pass on an elongated neck to its offspring. If we inquire into the nature of elongate-necked deer, we

shall most certainly find that their offspring are perfectly normal (barring monstrosities)! And a similar inquiry into the possibility of hereditary transmission of acquired characteristics by an individual would probably show that they are not transmitted.

Individuals of course are tremendously affected by environment and circumstance, by their action upon nature and by the reaction of nature upon them; and through long periods of geologic time it is probably true to say that the body of the acting individual, or succession of individuals, would slowly acquire specific modifications; but this would invariably be along the lines of functional tendencies or capacities inherent in the germ-plasm, and most certainly would hardly be classified under the general and rather vague expression 'the inheritance of acquired or favorable characteristics.'

Hence the theory of the transmission by heredity of acquired favorable characteristics is no longer either popular or widely accepted; although, as I said, there are yet a few die-hards, who still hold to it, as an explanation of the origination of species.

It is not to be supposed, for the common experience of mankind runs contrary to it, that a living body of vegetable, or beast, or of man, can pass on to its offspring modifications which itself has acquired or has suffered during its lifetime, such as membral change, or skill, or muscular development on the one hand, and accidents such as the loss of a limb, on the other hand. This is obvious, and no one teaches it or speculates upon it. But if this living being, or rather all the

representatives of any particular phylum, live and die through long generations in some particular environment, do they or do they not acquire characteristics or modifications which become so much a part of their physical being that these modifications are transmitted by heredity? This is precisely the question so warmly disputed.

The general tendency of biological transformist thinkers is to say that this is the very process by which racial strains advance or progress or evolve; but the Theosophist, in common with a large number of eminent biological evolutionists, whose number increases with every year, says No; because although the idea, *as stated,* indicates the action or working out of an indwelling drive or urge to higher things, yet these biological evolutionists do not recognise any such inner urge, and therefore discard the theory.

Theosophists consider the scientific researchers in all fields as our best friends when they elucidate, when they bring to light and classify and catalog and put on record, the facts of Nature. But it is another thing when adventurous-minded researchers into Nature's mysteries evolve from their own minds, this, or that, or some other particular hypothesis, or theory, or speculation, or scientific fad and say: "This is a fact or law of Nature!" It is but speculation, or a hypothesis, or a theory, or a fad; but it is most certainly not a fact or law of Nature, in the sense of expressing one or more of the fundamental operations of the Cosmos, of which man is an expression.

Evolution is a fact. The only question is whether

the fortuitous action, through periods of time, of the individuals of a race upon Nature, and Nature's fortuitous reactions upon those individuals, suffice adequately to explain the process. The idea is steadily growing more and more unfashionable, because the problems of the supposed origination and growth of self-consciousness, and of psychical and intellectual development, are inexplicable by it.

As a matter of fact the real question at issue is this: Is there or is there not behind the evolving racial strain, as expressed in its individuals, a vital urge or drive to betterment, working from within outwards? If so, it is true evolution, and that is what the Theosophist accepts. If the materialistic transformist denies this fact, he has the tremendous *onus probandi* before him, the almost insurmountable difficulty, of explaining whence and why and how these marvelous faculties arise and increase in power and expression with the passage of time. No transformist has yet succeeded in meeting this issue.

The Darwinist is fond of talking of the so-called struggle for life, but we claim that this so-called 'struggle for life' has been greatly overdrawn. It has now become quite popular to believe, on proved facts (and these facts are very opportune), that there is just as much mutual assistance and helpfulness in the animate portion of the Cosmos as there is of combat and struggle; in fact, more.

It is somewhat like the old theory of the proper way of conducting commercial activities. There was a time when the commercial man thought the proper

way to succeed in business was by gaining advantage over his competitors — advantages of all kinds, honest or dishonest, it mattered very little indeed. But the better theory, the more modern theory, is that commercial operations are truly successful when they are co-operative; that it is far wiser and better for men to help each other, to save each other from financial disaster even, than it is to drive one's competitor to the wall. The reason lies in the organic nature of all human activities in which no one can possibly stand alone. There could, in fact, be no such thing as commercial activities unless men worked together, buying and selling to and from each other; and the operation of the same principle of mutual activities and co-operating interests is to be found everywhere.

Now these reflexions amount to a recognition of the forces, behind the veil, working in human nature; and because man is a child of that Nature, and has in him everything that Nature has in herself, in germ or in development, these forces therefore copy or imbody in the small the same operations, the same forces, the same activities, that work in and through the Cosmos.

But returning to the doctrines of transformism, as expressed by the hypotheses of 'natural selection,' the 'struggle for life' and the 'survival of the fittest': Do we deny these as factors in evolution? Put merely in this way, without any collateral implications of theory or hypothesis, the simple answer is, No, nobody denies a fact. For instance, it is obvious that of three men, the fittest is certainly the most likely to survive in a

given set of adverse circumstances or indeed of favorable circumstances.

There is nothing new whatsoever about that idea. It is as old as the ages. The common sense of mankind has recognised that the man fit for a certain career will be more likely to succeed in that career than the man who is fit for another career. In each case it is the survival of the fittest to survive in a particular set of circumstances, but the survival of the fittest is not necessarily the survival of the best.

To illustrate: a man in the water and a shark in the water are two entities in the same environment: the latter is 'fit' and the former 'unfit.' The shark will therefore survive but the man will drown. Here is obviously a case of the survival of the fitter; but is it the survival of the better or the superior, or the more evolved? Obviously not.

And we likewise know — simply put, and without any theoretical or hypothetical implications of doctrine — that Nature itself (using Nature in a generalizing sense, not as an entity, but as an expression of the operations of the manifold beings with which the Cosmos is filled), that Nature certainly does 'select' or 'favor' certain entities because they are fittest for their environment.

Nobody denies an obvious fact — the Theosophist much less than anybody else. His whole philosophy-science-religion is based on Nature; not alone on the material physical nature which we know with our physical senses, but on that Greater Nature, of which the physical nature is actually but the vehicle, the expres-

sion, of indwelling forces. By Nature we mean the entire framework and course of the Cosmos, from the spiritual down to the physical; from the ultra-spiritual down to the ultra-physical—limitless in each direction.

But why do certain things survive and certain others fail or fall or 'go to the wall'? Why — using the word Nature in the sense that we have just specified — why does Nature 'make selections'? Why does Nature seem to favor, to put it more specifically and more accurately, certain races, certain racial strains, certain individuals, allowing them to survive, while others fail or fall?

The answer is as simple as can be. We have simply to look at Nature to find it out. Why involve ourselves in imaginary hypotheses, when we have the great Cosmos all around us, and within us, to draw upon for truth? Certain entities or races survive because they are growing, they are full of vital forces, of an inner urge, which pushes them steadily ahead. Other entities or things fail or fall or 'go to the wall,' because their time to pass away has come, to make place on the stage of life for others to succeed them.

On the surface of the earth even today, we have certain races of men whom we call savages or barbarians. The modern Darwinian or so-called transformist idea is that these savage or barbarous groups are young races, young humans, men in the making. But a close and rigid investigation shows that the truth is the opposite; they are old, worn-out, passing away. They are unfit to survive in present-day conditions and circumstances.

There is, however, one notable racial exception to the above-cited barbarous groups. This racial exception comprises the different families of the native Africans, commonly called the Negro; for this racial group or strain is not old but new, not dying but still relatively in its infancy. Everything in turn has its chance, lives its life and finally passes off the scene.

Is this a helter-skelter universe, in which entities and things are driven by chance hither and thither, in which no law, no consequences operate, in which the good, and the bad, and the indifferent, are so just merely by chance, and not as the result of cause and effect? Who believes such nonsense? Therefore everything in its turn occupies its place from an anterior operating cause and as a present effect, or exists in a static effectual relation with other things, which temporarily are stronger, more concordant with circumstances and surroundings, and which are therefore fitter to survive than it.

Everything for us is alive, but not necessarily animately organized; but being living things they must either progress, retrogress, or temporarily stand still — all three of which processes may at some time take place, though the general movement is progressive and forward for all.

We make the same distinction that the ancients did as regards this question of 'animate' entities. Those entities, human or sub-human, which possess an 'anima,' a vital-astral soul, we call *animate* organisms. In the old Sanskrit they were called *jangamas,* that is, 'goers' or 'movers,' as contrasted with those which did

not possess an anima, or at least in whom the anima existed merely in germ. In the old Sanskrit these latter were referred to as 'fixtures,' and called *sthâvaras,* meaning 'unmoving'; the 'fixtures' therefore are the minerals and the plant-world; while on the other hand, the 'goers' or the 'movers' are the beasts and men, and in much smaller degree even the entities of the vegetable kingdom.

By all the above picture you can see that to the Theosophist evolution extends over far wider fields, and reaches to far greater heights, and we see it operative in Nature in a far more complex manner, than does the relatively simple teaching of modern scientific transformism.

7. *The Evolutionary Stairway of Life*

EVOLUTION is today a subject of great interest. Men are dividing themselves into groups or parties pro and con, and there is some danger, in fact an imminent danger, that the same phenomenon may manifest itself again in our age that came into such unfortunate prominence with the works of Charles Darwin. The psychology of the times following the publication of Darwin's works was so strong that most thinking men, normally sane, could not then be brought to admit that there were any alternative explanations of the phenomena of progressive development in life — human life, beast-life, plant-life, to the scheme of transformism which Darwin's works set forth; and this psychological phenomenon was brought about mainly by the efforts of two men, men of large culture, it is true, but vociferously enthusiastic, and more or less dogmatic in the presentation of their views; and they ended by convincing the world that the evolutionism, in reality the transformism, that they taught, was the actual procedure of manifested life in producing development in all creatures.

These two men were, first, Thomas Henry Huxley,

and second Ernst Heinrich Haeckel. Both were fervent Darwinists, with modifications, both vociferously enthusiastic transformists. Their influence, on the whole, has not been good upon the mentality of the human race.

We do not question the *bona fides* of either of these men, but we have the right to question, and we do question, their influence for good upon thinking and unthinking minds. They taught things that in many important essentials were not true, and taught them in such fashion that their hearers were led to believe that they were true. This influence was brought to bear upon the minds of the men of those days by means of the great literary and scientific standing which these two men in particular had. We do not accuse them of deliberation in misstatement and in divergence from the facts of Nature in order to support their theories; we merely state what we believe to be a fact from an unbiased and impartial consideration of results.

These two men were exceedingly able; but they spoke with the voice of authority on subjects which they themselves, in many particulars, were merely guessing at. These conclusions are not mine alone. They are also the conclusions of many of the scientific researchers and thinkers of today — greater scientists of their own class, later men with wider knowledge and deeper insights into Nature's workings.

Take, as an instance, Haeckel. In our sense he was the more dangerous of the two, for the reason that he had a vein of mysticism running through him; and when a peculiar type of mysticism is combined with

blind, crass materialism, it inevitably produces certain doctrines which actually degrade psychologically those who hear them and follow them.

A man who will say that there is nothing but intrinsically lifeless matter in the Universe, striving chance-like, fortuitously, towards better things; and who in the same breath will talk of 'plastidular souls' — the 'souls' of cells — these 'souls' being explained apparently as the fortuitous offspring of lifeless matter; and who will, in order to complete his schemes of genealogical trees as regards man's developmental past, invent, suggest, and print imaginary stages of development in his books without calling attention to the fact that they were his own inventions, is not, we submit, truly scientific. Is it in any sense a proper attitude to be taken by the so-called guardians of one of the most holy (as it should be at least) of the functions of the intellect, intelligence, and spiritual mind of man — Science?

One of these inventions is to be found in Haeckel's book, *The Last Link,* published in 1898. In it he divides the evolutionary history of mankind into twenty-six stages. His 20th stage he gives as that of the 'Lemuravidae' (who were placental mammals), which might be translated from its hybrid Latin form as 'the grandfathers of the lemurs' — the lemurs being a very primitive type of mammal, supposed to antedate the monkeys in evolutionary time, and often called *Prosimiae.* Now, no one ever heard of these particular 'Lemuravidae' before; and they have never been found since; and, as Prof. Frederic Wood Jones, the eminent

British anatomist said, Haeckel simply "invented them in order to fill a gap."

Huxley was a man of very similar scientific type of mind, but with another psychological bent to his genius. He was psychologized with the idea that there was an end-on or continuous or uniserial evolution in the developmental history of animate beings, *as known to him;* that is, that one type led to another type — the highest of the lower order or family or group passed by degrees into the lowest of the next following or higher group; and his whole life-work was based on this theory; and all his teachings — backed by much biological research and anatomical knowledge, and other things that make a man's words carry weight — had immense vogue for these reasons.

With this viewpoint in mind, he was continually trying to find connecting links by considering likenesses between man, for instance, and the various stocks inferior to him; and it must be admitted that in his attempt a great many unlikenesses and dissimilarities and fundamental differences, all of extreme importance, were either ignored entirely, or — may I say it? — wilfully slurred over.

It was the old, old story, both in Huxley's case and in Haeckel's: what was good for their theories was accepted and pressed home to the limit; and what was contrary to their theories was either ignored or slurred over. We submit that, great as these men were each in his own field, and they were both undoubtedly able men, that procedure is not a truly scientific one. We can excuse their enthusiasm; but an excuse is not by

any means an extension of sympathy to the mistake.

The idea, which governed and directed the entire life-work of Huxley, was not the offspring of his own mind. There is little doubt that he took this idea from the Frenchman, de Buffon, who says, for instance, in speaking of the body of the orang-utan, that "he differs less from man than he does from other animals which still are called apes," that is to say from the monkeys.

And Huxley, writing in 1863 has the following to say, in *Man's Place in Nature,* page 103:

> The structural differences which separate man from the gorilla and the chimpanzee are not so great as those which separate the gorilla from the lower apes.

Please note that I refer to 'end-on' or continuous or uniserial evolution only in so far as Huxley thought it existed in the sub-human beings and their geological progenitors that he knew, or thought must exist in order to conform with his theory. As a matter of fact, 'end-on,' continuous, or uniserial evolution *per se,* is also fully taught by Theosophy, but not that particular line or course which Huxley took for granted. He took this for granted without adequate proof that the beings now below man or in geological times of the past then below the human stock, formed or provided the road of the evolutionary course of the prehuman stock eventuating in modern man.

This the Theosophist emphatically and wholly denies; for the reason that the ancestors of the Simian and of other mammalian entities now existing, were themselves stocks following their own line of develop-

ment, even as the human stock now does and then did. In other words again, instead of there being one single line representing the ascending scale of evolutionary development passing through the geological progenitors of present-day mammals, towards and into man, there are several, and indeed perhaps many, such genealogical trees.

The Theosophical teaching in brief is this: The human stock represents one genealogical tree; the Simiidae another stock; each following its own line of evolution; yet the latter, the Simian stock, originally sprang from the human strain in far past geologic times; and also, indeed, the other genealogical trees of the still lower mammalia; while the Classes of the *Aves* or Birds, of the *Reptilia* or Reptiles, of the *Amphibia* or Amphibians, and of the *Pisces* or Fishes, may likewise truly be said to have been in geologic times still more remote, very primitive offsprings from the same pre-human (or man) stock.

Huxley took for granted, because there are undisputed and indisputable likenesses between the anthropoid or man-like ape and the monkeys still lower than the ape, and man, that therefore man sprang at some remote period in the geologic past from some remote (but totally unknown) ancestor of monkey and ape. He had never seen such a missing progenitor; no such missing progenitor has ever yet been discovered. But he deemed that there must be one because it was necessary for his theory; and he so taught it, and taught it with emphasis and with enthusiastic vociferation. His voice rang out over the entire English-speaking

world, and his ideas were accepted as established facts in organized knowledge — Science.

Unfortunate enthusiasm! — culminating in the things that we have seen in the past few years, originating in the teaching to modern man that his ancestry was bestial, beasts whose ancestry again was that of some still lower creature, perhaps a quadruped, whose remote ancestor in its turn still farther back was perhaps a fish, whose still remoter ancestor was a protozoon — some one-celled entity. Huxley's scheme has never been proved true; some of the most brilliant minds in biological research have sought to prove it true; yet the result of their researches has been entirely contradictory of it.

We must not imagine for a moment that the natural truth of progressive development, modernly called evolution, is something new in our age or in the age of our immediate fathers, nor that it originated in the mind of Charles Darwin, whose great work, *The Origin of Species,* was published in 1859.

The idea of there being a ladder of life, a rising scale of entities, some much more advanced than others, some more retarded in development than others, is a very old one. There have existed in the world among the different races of men, in ages preceding our own, various systems of accounting for what the inquisitive intelligence of man plainly saw exists among the animate entities of earth — a rising scale of beings. Here you have the picture: First man, supposed to be the crowning glory of the evolutionary scale on earth; and underneath him the anthropoid apes, and under-

neath them the monkeys — the simian stock; and under these latter the lemurs — sometimes called the *prosimiae;* and underneath these again have been frequently placed the quadrupedal mammals; and underneath these again, various classes, orders, genera, and species of vertebrate animals; and underneath these again a very wide range of invertebrates or animals without a backbone; and so forth down the scale.

This idea of a progressive development of all animate entities on earth in present and past geological periods, as I have just said, is a very old one. Leaving aside for the time being allusions to teachings, as to evolutionary development, in the archaic writings, such as in the Purânas of India, or in the so-called speculations of Greek and Roman philosophers and thinkers, let us come down to periods more near our own.

For instance, here is a thought taken from Sir Thomas Browne's *Religio Medici* — quite a remarkable book of its kind and published in 1643. He says:

> There is in this universe a stair, or manifest scale, of creatures rising not disorderly, or in confusion, but with a comely method and proportion.

Just so. There is a Stair of Life; it is what the Swiss philosopher and biologist, Charles Bonnet, and the French thinkers and biologists, Lamarck, de Buffon, and especially Jean Baptiste Réné Robinet, called *l'échelle des êtres* — 'the ladder of beings.' It was the very recognition of this scale of animate life, swaying the minds of foretime investigators, that led to the culmination in our time of the theory of so-called

'evolution'; and it was Charles Darwin himself who is responsible for having formed a more or less coherent fabric or structure of argument, building up a logical outline, as far as he could understand it, of the facts of Nature, his theory, or rather his method, attaining almost immediate acceptance.

Now while we see this ladder of being and must take it into a full and proper consideration in any attempt to ascertain the rising pathway of evolutionary development, is that a sufficient reason for imagining — and teaching our imaginings as facts of Nature — that there has been a progressive development running through these particular and especial discontinuous phyla or stocks, and eventuating in man?

This is one side of our quarrel with modern transformism; the series is obviously discontinuous; none of the steps of this ladder melts into the next higher one, or inversely into the next lower, by imperceptible gradations, as should be the case if the transformist theory were true.

Biologists themselves soon found that this so-called stair or ladder of life was a discontinuous one. They saw, as their knowledge of Nature grew greater, that each of these great groups below man, composed of the backboneless animals or Invertebrata, and of the Vertebrata or backboned animals such as the fishes and the amphibians and the reptiles and the birds and the mammals — they found that these great groups did not graduate into each other.

Between the various great groups there were vast hiatuses without known connecting links; and research-

ers hunted long and vainly for 'missing links' connecting these great groups, and found them not. They found them neither in any living entities, nor in those forming the formerly animate record of the geological strata; and those 'missing links' have not yet been found. These gaps, therefore, made the biologic series of living entities discontinuous instead of continuous, as Darwin's method required.

Darwin and his followers imagined that they had found, by investigating various stages in this presently existing ladder of life, the route, the way, by and through which the human stock had climbed from lower beings to higher — to present-day man. But every attempt to find 'missing links' — that is to say, links binding the highest of one particular phylum or stock to the lowest of the next superior phylum or stock — has always broken down. No such 'missing links' have ever been found. There are wide hiatuses where, according to this transformist theory, these 'missing links' should be.

Now, obviously, any stock supposed to have been evolving through these various groups, could not have made such jumps from one great group to another great group. One of Darwin's great maxims was "Natura non facit saltum," that is to say, 'Nature makes no leaps' in its progress forwards — which by the way, is exactly what we Theosophists also asseverate. Evolution is a steady progression forwards, he said, from the less to the more perfect, from the simpler to the more complex. Well, we say so too; and there is here no ground for dispute between our two otherwise

extremely diverse views as to the nature and course of evolution.

What then is the explanation of this discontinuity — of this lack of connexions or 'missing links' between the great phyla or stocks? For we find this discontinuity in every instance where we pass from one great stock or phylum to the next. It is not the case of a single instance; it is not a unique case, explainable perhaps by certain causes, of which we are ignorant; but this discontinuity is repeated between every one of the great stocks.

The fact is that there is not, as regards the beings existent today, or rather as regards their progenitors in geological eras of the past, an 'end-on' evolution or uniserial evolution up to and including Man, the supposed crown of that biologic series, *in the manner that we have been taught;* but instead, a number of stocks, each passing through various stages as marked out by their different orders and families and genera and species.

The truth is that instead of there being one genealogical tree, there are many. Whence came these different genealogical trees? The human stock is one; the anthropoid apes are another, closely allied with the monkeys; then the quadrupedal mammals again are another stock; the *Aves* or Birds are still another; and so forth, as I have previously named them. These are all different stocks, though undoubtedly connected together in various ways by vital bonds of contemporaneous development both now and in the past; otherwise they would not be collected together on our earth;

nor would they show those particular affinities which these various stocks undoubtedly do show today as well as in past time. But we may contemplate all these things and admit all these various facts, and yet say with perfect security, that they do not furnish or form that ascending Ladder of Life, through which we as humans passed in order to reach our present stage, in the degree and in the continuity of continuous gradations from lower to higher, that we as true evolutionists must demand. There has been, I repeat, no 'end-on' evolution *of this kind or in the manner outlined;* that is to say, Man did not evolve through and in the creatures of all degrees and of all Classes and Orders and Families and Genera existent on the earth today, or rather as regards their more remote and most remote ancestors. The specific characters in the various stocks are all too far evolved along their respective lines, and have existed too far back in geologic time for the human strain to have passed through them on its upward journey.

Research has shown that instead of its being the highest of any sub-phylum passing into the lowest of any higher sub-phylum, it is almost invariably the lowest representative in each phylum which are most alike in primitive features — a most significant fact, and one which is entirely Theosophical, when properly understood. It was so with all the groups, particularly so in the case of the vertebrates or animals with backbones, that is to say the fishes, amphibians, reptiles, birds and mammals.

The simple reason is that the farther we go back

in time the nearer we approach to the junction-point or starting-point of the various mammalian and pre-mammalian genealogical strains. This is because, springing from one common source, they naturally approximate both in type and character the farther back we can trace them.

In other words, the farther we go back towards the origin of any such great group, the nearer we approach to the general and common point of departure — and the nearer those earliest progenitors of each such great group will resemble each other in basal mammalian simplicity; while, on the other hand, the farther we recede from that general and common point of departure, in other words the nearer we approach our present age, the more widely separate must the representatives of these various great stocks be from each other, on account of the differing natures and the inherent forces evolving through them.

What is this common point of departure? It is the human stock. The human race considered as a whole is the most primitive of all the mammalian stocks on earth today, and always has been so in past time. I mean by this, that it is the primordial stock; it is the originator of the entire mammalian line, in a manner and according to laws of Nature which we shall reserve for a future study.

The human stock was the first mammalian line; obviously it is at present the most advanced, and the logical deduction would be that it is likewise the oldest in development. Having started the first, it has gone the farthest along the path. But we will not press that

point for the present; we leave it for your consideration, because it is a good point in argument.

Man is, in fact, the most primitive of *all* stocks on earth. Remember, however, that in the present great evolutionary period on earth, or what in Theosophy is called the present 'Globe-Round,' it is the mammals only that trace their origin from the primitive human line; the other Vertebrata, as well as the great groups of the Invertebrata, likewise were derived from the human stocks, but in the previous Globe-Round — comprising a vastly long cycle of evolutionary development, which was ended aeons upon aeons ago; and in itself, that is to say, in the former Globe-Round, or great Tidal Wave of Life, required scores of millions of years for its completion.

Evolution as taught by Theosophy, calls for a time of vastly long duration; indeed, many hundreds of millions of years.

The Darwinists have never been able adequately to prove the thesis of Charles Darwin, considered as a method, because they could not prove an end-on, or continuous, or serial, developmental growth from any one of the lower great groups into the next higher great group; or, more generally speaking, from the lowest life up to man. There is along *that scale,* let me repeat, no end-on evolution, and none knows this better than modern biologists themselves.

Yet Theosophy teaches that evolution, if it exists at all must be an end-on, continuous, or uninterrupted serial evolution. An evolution of form which consists mainly of jumps from great group to great group is no

evolution at all, and presents anew the very riddle which the Darwinian theory was expected to explain. The problem is cleared up when we remember that evolution is continuous for each stock *along its own particular pathway*. Instead of there being one Ladder of Life, leading up to man who is the crown of that Ladder, as it were, there are many such ladders of life, each such being composed of one of the great groups of animate entities. Instead of there being one procession of living entities pursuing an uninterrupted course from the protozoa or one-celled animals up to man, there are various ladders of life along each of which a procession of its own kind climbs. Please try to understand this idea, because it expresses some of our main points of divergence from the Darwinian theories.

8. *Proof of Man's Primitive Origin*

THE Theosophist, although he places the body of man squarely in the animal world, does not mean by this that man's physical encasement is evolved from the beasts. He means, on the contrary, as I have already sufficiently elucidated, that actually the beast-world, and indeed the worlds below the beast-world, were originally derived from man himself in far past ages of the life-history of our globe.

This means that man is the most primitive of all the stocks, and that he is thus the most highly evolved. He has been able to evolve the inner vehicles, the inner organs, which give him power to express his inner faculties and spiritual parts. In the beast, indeed, lie the potencies of everything in the universe, latent or active, in germ or in manifestation as the case may be. The beast has all the possibilities of evolutionary growth that man has, but the beasts have not yet evolved the inner organs suitable for the expression of these inner powers.

It is because of man's superior status, as an *inner* entity, that we elevate the human stock into a kingdom of its own, a fourth kingdom — that of Man; for man possesses unique intellectual and psychological faculties,

which no other creatures known to us possess in anything like so great a degree.

Now what proof have we that the human stock is the most primitive on earth? To answer this question, we shall have to go into a number of technical biological details, much as I have tried to avoid these.

I have made notes from various biologic works of a number of exceedingly interesting skeletal and muscular features which man has, in order to show the extreme primitiveness of the human stock, more particularly with relation to his mammalian peculiarities.*

1. Let us speak of the human skull. The bones of the human skull articulate at the base of the skull and

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*It is to be noted that there is a tendency in some modern text-books on zoology to abandon, albeit with some hesitancy, the placing of Man and the other Primates at the end of the mammalian series. See, for instance, *College Zoology* by Robert W. Hegner, PH. D., pp. 588 and 596 (Macmillan Co., 1937). The author of this text-book places the Primates as the 6th Order in a series of 19, i. e., very near the beginning of the mammalian classification, but finds it necessary to defend his unusual arrangement by saying that however strange it may seem to students to depart from the accepted classification, he does so because man and the apes "retain a larger number of primitive characters than do the orders that are placed above them in this classification"; some of which characters "are found elsewhere only among the lowest placental mammals, the INSECTIVORA."

Another significant statement made by Hegner is that whereas the Primates excel principally in the development of the nervous system and in the large size of the brain, their bones, muscles, teeth, etc., are comparatively primitive.

Note that it is only those features (brain, nervous system,

on the sides of the brain-case in a manner which is characteristic of primitive mammalian forms, but they show a contrast, a very marked contrast, with the arrangement of those same bones in the anthropoid apes and the monkeys.

However, the human skull in these respects exactly resembles the same handiwork of Nature as is found in the case of the lemurs, a curious group of primitive mammals preceding the monkeys in evolutionary development and time, according to the Darwinists.

Hence the only conclusion that we can draw from this anatomical fact, is, that since in the case of monkeys and apes these bones are differently arranged and that the arrangement in the human skull is very primitive, therefore the pithecoid and other simian show an evolutionary development away from the primitive mammalian base, which man in common with the lemurs far more closely represents.

2. The nasal bones in man are exceedingly primitive in their simplicity. In the case of the monkeys and

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etc.), which are useful to man for the expression and complete functioning of his *inner* psychological and intellectual nature, which show specialized development. The significance of this is made clearer in Chapter 12, 'Specialization and Mendelism,' pages 181-187; but in connexion with the subject of specialization in general, attention is also called here to important statements by Luther C. Snider in his *Earth History* (The Century Co., 1932), especially Chapter xxiv, 'The Change in Living Things,' where the writer gives abundant evidence to show that "the simple, generalized types are thus centers from which others radiate," and that "the generalized types are the most persistent."

anthropoid apes, these animals cannot approach man in this respect of primitive simplicity, and we must therefore conclude that in the cases of these particular beasts, the evolutionary development has resulted for them in a wider departure from the original or primitive strain.

3. The primitive architecture of the human skull is likewise shown in a number of features in the face. Prof. Wood Jones, in a pamphlet entitled, 'The Problem of Man's Ancestry,' says:

> The structure of the back wall of the orbit, the "metopic" suture, the form of the jugal bone, the condition of the internal pterygoid plate, the teeth, etc., all tell the same story — that the human skull is built upon remarkably primitive mammalian lines, which have been departed from in some degree by all monkeys and apes.

4. The same anatomist, famous in his profession, likewise points out that

> The human skeleton, especially in its variations, shows exactly the same condition [of primitive mammalian simplicity].

5. Another quote from the same source:

> As for muscles, man is wonderfully distinguished by the retention of primitive features lost in the rest of the Primates.

Primates, you will understand, is a scientific term comprising the higher animals of the supposed evolutionary series, and including Man, the anthropoid apes, the monkeys, the lemurs, and perhaps one or two other minor races.

Now as regards man's primitive muscular features, let me give you an example, after pointing out that in

skull, in skeleton, and in the arrangement of his muscles, man in a host of respects is an entity of very primitive type, and has not, so far as these particular instances are concerned, the same large and wide specific variations that the monkeys and apes have followed in their respective line.

Let us take first the *pectoralis minor* muscle, as an instance. This is a muscle which runs from the ribs towards the arm. It is attached to the coracoid process of the shoulder-girdle. In the anthropoids it is attached to the coracoid in part, and in part to a ligament passing downward to the humerus, that is to the bone of the upper arm. In the monkeys it is attached still farther down the same ligament, but also to the humerus; while in many quadrupeds it is attached to the humerus altogether.

Now, as you may know, a favorite way of attempting to prove the evolutionary development of man from lower animals by the transformists of modern times is to make anatomical and physiological research into the bodies of beings below man. For instance, a favorite course of procedure followed is the attempt to trace in apes, monkeys, lemurs and quadrupeds, skeletal or muscular identities, variations, or analogies, first in the apes, then in the monkeys, then in the lemurs, then in the quadrupeds; and if the researcher find similarities or identities or analogies in this examination, the conclusion is immediately drawn that these beasts form a part of the evolutionary road up which the human stock has climbed in its development. In other words, that man is the latest in the series of living forms, and that

these and other creatures were his predecessors and formed the links of the evolutionary chain, the lowest being the original or primitive form.

But it is an entirely misleading method to follow, because, as we have just pointed out, the stocks are different; there are no still existing connecting links between the great phyla; and last but not least, these lower stocks are far more widely evolved along their own particular lines in respect to certain important skeletal and muscular variations than man is, who is the most primitive of all the stocks.

In our present instance, that of the *pectoralis minor* muscle, we find that the coracoid process is the primitive attachment of this muscle, and man and some other exceedingly primitive animals retain today this very ancient type of insertion. The transformist would say that in its evolutionary development this muscle has climbed up from the humerus, which according to them is its primitive attachment, and having risen along the ligament has finally reached the coracoid process in its highest form of development in man. But this is an exact reversal of the truth as shown by an anatomical examination.

6. The human tongue is also very primitive in type; the chimpanzee's tongue resembles man's in some degree; yet man's tongue is far more primitive than that of any monkey or anthropoid ape, the nearest to man of the animal entities beneath him in the supposed ascending but yet discontinuous scale of evolution, through which, according to the Darwinists, the human stock evolved.

7. The human vermiform appendix is curiously like that of some of the marsupials, or pouched animals, of Australia. It is very different in monkeys and in apes.

8. The great arteries arising from the arch of the aorta in man have the same number, are of the same kind, and are arranged in the same order, as is the case in a most curious and exceedingly primitive little animal, some eighteen or twenty inches long, found in Australia and Tasmania, the *ornithorhynchus anatinus* — which little beast is commonly called the Duck-billed Platypus, so called because it has a bill closely resembling that of a duck. It is the lowest of all known mammals, because it actually has mammalian glands, which are without nipples; yet it lays eggs. In Australia it is popularly called the watermole. It is not, however, a mole; but it is a mammal of its own peculiar type. As said, the number and kind and order of the great arteries named are the same in man and in these extremely low mammalia, which are primitive in the highest degree. On the other hand, the arrangement of these arteries in the anthropoid apes and the monkeys is quite different.

9. The human premaxilla, or the bone which carries the incisors or chisel-teeth, that is to say the front teeth, no longer exists as a separate element in man, if it ever did so exist; but in all the apes and monkeys and in all other mammals, this premaxillary element is shown on the face by suture-lines, marking the junction with the maxillary bones. Because in man it is not a separate element, but is a separate element in all other mam-

mals, it is, therefore, what would be called in science a specific human character.

Now, with regard to this bone, please mark that it is already established as a distinguishable character in one of the earliest stages of the development of the human embryo, when that embryo is no more than three-fourths or seven-eighths of an inch long; as Professor Wood Jones says, when the embryo is no longer than "ten times the diameter of an ordinary pin's head."

Hence, in view of the bio-genetic law controlling embryological growth, called the law of Embryonic Recapitulation, this human character being shown so early in the development of the human embryo, forces us to conclude that it was a specific human character at a very early stage of human evolution, thus again demonstrating that man is an exceedingly primitive being.

According to this law of embryonic recapitulation, the embryo passes through in its growth the various stages which the stock to which it belongs had passed through in preceding biological time. It is a sort of rehearsal in brief of former evolutionary stock-history. And the human embryo shows this as a human specific character when the embryo itself is no longer than three-fourths of an inch; indeed, it is already outlined when the future bones of the face are still merely nuclei of cartilage.

According to the biologic law of recapitulation, as they call it, the earlier a specific character appears in the embryo, the farther back in time must it be searched for in the evolutionary history of the stock to which

the embryo belongs; and conversely, those characteristics latest to appear in the embryo are those which appeared latest in the evolution of the biologic stock to which the embryo belongs.

Further, it is said that the embryo repeats in its growth first the grand features of the Class to which it belongs; they come first; then come the features, as the embryo grows, of the Order to which it belongs; then those of the Family; then those of the Genus; then those of the Species — and these specific characters come last of all.

That is the alleged law; hence, if we find any character, any specific feature, which appears in the early age of embryonic growth, this law says that we must search far back in the evolutionary history of the stock to which the embryo belongs, in order to find its first appearance there. Please remember this fact.

10. The human foot is another very primitive characteristic or rather character of the human race — of man. Have you ever looked at the foot of an anthropoid ape, or of a monkey? Do you realize that an ape's foot is actually, in some respects, more like the human hand than its own hand is? Instead of being a foot in its function, it is really a hand in function, because it operates like one on account of the great opposability of the big toe, which can be made to diverge or stick out almost at right angles to the digits of the ape's foot.

But turn to the beast's hand, to that of the gorilla, for instance, and you will see that the thumb is but a stump, so to say, as compared with the human thumb;

and if you have ever watched an ape or a monkey attempting to pick up a pin or a needle, you could not have done otherwise than have seen the difficulty it has in doing what a man can do instantly, on account of man's opposable thumb.

If you will look at your hand, you will find that the third finger, the third digit, is the longest of the five digits; it is likewise so in the hand of the ape, and in the hand of the monkey. It is likewise so in the foot of the ape, and in the foot of the monkey.

It is for this reason that I have always preferred the old descriptive term given to the anthropoid apes and the monkeys in 1791 by Blumenbach, who called these beasts *Quadrumana,* or four-handed creatures, because the feet of these beasts can be used as hands as readily, or perhaps more readily in some respects, than the hands themselves. The hand of the ape or the monkey often functions rather like a hook than in the manner of a grasping prehensile hand. 'Quadrumana,' therefore, is an extremely graphic descriptive term; and the placing of the monkeys and apes under the more modern general term of Primates, unfortunately tends to hide this extremely specific character of both ape and monkey.

I have always felt that there was some hid reason, perhaps working unconsciously in the minds of scientific systematists, for apparently wishing to cover the fact that the ape's foot and the monkey's foot were so different from the human foot.

T. H. Huxley in his enthusiastic championing of the Darwinian theory did a great deal to belittle the

unique and specific character of the human foot, and this work must be thoroughly undone. Man's foot is, as just said, unique in Nature; no other animate entity has a foot that can compare with the typically specific features of the foot of a man.

The typical human foot is arranged so that the big toe is the longest of the five digits; and the other toes usually range in a progressively shorter sequence to the fifth and shortest. It has been said that this specific shape of the human foot is the result of wearing shoes — and I cannot but feel that this rather extravagant guess is a most extraordinary and desperate effort to attempt to account for the wide divergence of the human foot from that of the apes and monkeys and of the supposed monkey-ancestors of man. But it is obviously untrue; the attempted explanation is both gratuitous and false.

A baby's foot shows exactly the same character that I have just spoken of; the unshod savage's foot shows exactly the same character; and while it is true that on some old Greek statues of the gods or of human beings, the second (but not the third) digit is sometimes occasionally slightly longer than the big toe, that happens also today in some living individuals; these instances seem to be exceptional cases. The typical human foot is as I have outlined. But in any case, it is not the third digit of the human foot which is ever the longest of the five, which it invariably is with the apes and with the monkeys.

Let us now turn to the human embryo in search of further proof of our point. An examination of the

growing infant *in utero* shows that from the very first period when its foot is outlined in embryonic growth, exactly the same unique character is seen as in the foot of the human adult; and please note further that this fact is seen early in the embryo's development. Hence, following the biological law of recapitulation, of which I have just spoken, it must have appeared early in the evolution of the human stock.

Further, the foot of the embryo is never, at any time in its growth, an ape's foot or a monkey's foot; it is typically human from the time of its first appearance, which is an extremely significant fact, for it shows that the human foot is a specific human character, and must have been acquired early, and perhaps very early, in the evolution of the human stock.

Therefore, again according to the biologic law of recapitulation, which is made so much of by the Darwinists themselves — and we feel that they have truth and fact with them in this instance — we must conclude that the human foot in all details of its architecture is an exceedingly primitive character or feature, and that the human stock, early man, must have acquired it in the very beginnings of his evolutionary history.

11. Let us now turn to another example, to the *peroneus tertius* muscle or third peroneal muscle of the leg, leading down into the fifth metatarsal of the foot, into which its tendon is inserted. Now this is one of the important muscles which aid a man to stand upright and to walk; but it is found in no other animal whatsoever, not merely not in the apes and in the monkeys, but in no mammal whatsoever. It is purely human.

Further, it is found in the human embryo early in its development. Therefore, it, like the foot to which it belongs, must be a specific character evolved early in the growth of the human stock. From this we are again obliged to draw an extremely significant conclusion, which is that man's upright posture, following these biological facts which I have just set forth, must have been his posture from the very origin of the human stock, or nearly so.

The old theory was, as you know, that man, only a relatively short time ago, was but an improvement upon his alleged ape-ancestor, which, in its halcyon days of freedom from any moral responsibility whatsoever, ate fruit and insects between intervals of swinging from branch to branch of some primeval forest-tree; and which, on the rare occasions when it came down to the ground, ran around on its knuckles as the ape does today. All that, we say, is not true.

This picture of the Saturnian Age of man, in late Miocene or in the Pliocene Ages, may be humorous, and interesting as an exercise of human ingenuity; but we search in vain in the geological record or in the skeleton and muscular system of man himself, for any real proof of it. There is no foundation in the facts of Nature for it, nor in embryonic development, nor has any such entity — between man and ape — ever been discovered in the geological strata which have been explored. It was a theory; it was a speculation; it was a hypothesis, doubtless enunciated in good faith by the extremely vocal proponents of Darwinism in their efforts to trace man's ancestry through the anthropoids. A

man may be very enthusiastic and very sincere, and yet not be a truthful exponent of the facts of Nature, if he allow his imagination to run before his scientific caution. Enthusiasm and truth do not necessarily clasp hands together.

But when we consider the human foot, and this particular muscle of man's leg, both very ancient in his evolutionary development, and both solely human, what conclusions must we draw? That man almost from his beginning, perhaps indeed from his beginning, was an entity with upright posture.

12. The human hand and forearm are likewise exceedingly primitive in many features. Professor Wood Jones, whom I have so often quoted, says, concerning the human hand and forearm, that in their muscles, in their bones, and in the joints, they are astonishingly primitive, and therefore could not have been evolved at a late date in man's evolutionary history; and, as a matter of fact, if you have ever examined the pictures as given in scientific books, of some of the extinct reptiles, fossils which are occasionally dug out from the rocks of the Mesozoic or Secondary Age, you will see that the hand or the paw, and the fore-limb, or whatever you like to call that limb, of those exceedingly primitive creatures, bears an amazing resemblance in general appearance, to the human hand and also forearm.

The transformists of the modern school have often told us that the line of evolutionary development of the human stock ran back through the apes and the monkeys into the quadrupedal mammalians, which means that if this theory were true man should even today

show, in his forearm and hand, distinct traces of his passage through that alleged line of ancestry; in other words, that man's arm and hand today should still bear some remnants or traces of his having formerly used his forearm and hand as a support for his body in the times when he is supposed to have been a pronograde mammal like the horse and the dog and the ox, etc.

The fact is, however, that that idea has now been given up entirely by transformists, as far as I know, thus creating another wide hiatus in the supposed ladder of life given in the Darwinian or neo-Darwinian theories setting forth the ascending evolution of man. No anatomist today, so far as I know, would do or could do otherwise than reject the idea, for it is impossible of credence, because man's forearm and hand, from the anatomical standpoint, were obviously never built or used as the supporting fore-limb of a mammalian quadruped.

Professor Klaatsch, of Heidelberg University, also has put most definitely on record this truth, in stating that man never was a quadrupedal mammal like the horse or the dog or the elephant.

Professor Wood Jones, who is a courageous and honest scientist, an anatomist by profession, nevertheless believes that while man never was a quadruped in his past evolutionary history, he was at some very early period of his developmental line an arboreal animal of small size — an insectivorous little beast, I take it for granted, eating insects and fruits, living in the tree-tops because it was safer to live there than on the ground. Wood Jones points out that in the forests of Malaysia

there is a curious little monkey, which he calls the lowest of the monkeys, the Tarsius. Tarsius is still a very primitive creature showing small development from the type of its remote ancestors geologically speaking; and is represented in the early Eocene Age of the Tertiary Period by *anaptomorphus*, a creature closely resembling the present-day Tarsius in all essential respects.

Professor Wood Jones, if I understand him aright, seems to think that man originated from some creature, arboreal in habit, closely resembling the Tarsius of today, or the *anaptomorphus* of the American Eocene. I fail to see, in view of the facts that he himself has brought forth as regards the primitive features in man, how this can be so. However, such is his argument. He points out — and it is advantageous to our theme — that the Tarsius-monkey and man: that is to say the lowest monkey known, and the highest of the Primates, Man, are astonishingly alike in a number of primitive features such as the primitive architecture of the skull; also in respect to the peculiarities of the arteries which arise out of the aortic arch; and also that the kidney of the Tarsius is formed on the same type that the human kidney follows.

When we remember that, as just said, the Tarsius-type goes back to the very base or beginnings of the Eocene Period, and that the true anthropoid apes appeared in the next following period or the Miocene, we have a most persuasive suggestion that man himself must have existed in Eocene times — which, indeed, is the teaching of Theosophy, which says that even in that remote age man was man in all respects, and had de-

veloped one of the most advanced civilizations that the earth has seen, on a continent now sunken beneath the waters of the stormy Atlantic.

We have adduced a significant number of important anatomical instances* in proof of the fact that man is the most primitive mammal on the globe today, and always has so been — and we might as readily have brought forward a host of others — as is also proved by the facts in the geological record setting forth the fascinating story of the so-called ladder of life, and by the so-called laws of biology as they are enunciated by our greatest biological, that is, zoological and botanical, researchers and thinkers.

Further, we have pointed out that each of the stocks below man — we now take specifically the anthropoid and simian stocks — has wandered far more widely from that original primitive basal simplicity than man has; that man retains more of the basal mammalian features or characters in his body, that is, in his muscles, and in his skeleton, than any other animal now living on earth does; and that the apes and monkeys have wandered far afield in that respect, far more so than man has wandered from the primitive mammalian stock, *which was early man himself.*

With all this evidence before us to prove man's primitive origin, what becomes of the Darwinian "as-

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*Drawn chiefly from 'The Problem of Man's Ancestry,' 1918, by Frederic Wood Jones. This subject is more fully handled in two other works by Professor Wood Jones: *Arboreal Man* (1916), and *Man's Place among the Mammals* (1929).

cending ladder of beings," each stage of which is more complex than the one preceding it, and which is supposed to have eventuated in man as he is today? The two theories cannot exist side by side; one or the other must go by the board; and modern research and deduction is moving, albeit slowly, away from the Darwinian theory, towards the more enlightened conception which Theosophy has always taught, i. e., that man leads in the evolutionary history of the various stocks that this earth has produced.

9. *Man and Anthropoid — I*

So FAR as the ancestral derivation of man is concerned, we assert that he has not one drop of pithecoid or simian blood in his veins, and never had. I wish to emphasize this statement because we must free our minds in many important respects from that teaching which so very large a part of the public has unconsciously accepted as a true statement of the facts of man's ancestral tree. We must make our minds receptive of and more concordant with new discoveries, newer truths which the great researchers into Nature's mysteries have found out for us. Man never was an ape and he never was a monkey. How could he have been, since both ape and monkey were later than he, and were in a sense his half-children?

It is true that Theosophy does not teach that primitive man was physically fashioned as he now is fashioned, that is to say that his then appearance was identical with his appearance at present. On the contrary, man himself has evolved from a more primitive to a more perfect form even as other and lower creatures have so evolved. And it is a fact that though he possessed the same general type of physical structure that he now has, he actually was ape-like in appearance, but he never was an ape. I repeat, he actually was

somewhat 'ape-like' in appearance; but please mark this and mark it strongly: *at no time was man ever an ape,* for the simple reason that the ape appeared in geologic time far later than did physical man, being, in fact, in part, an offspring of an early human stock. The ape in some degree even today resembles in physical appearance his human half-parent of that distant time.

It should be remembered, moreover, that the apes, being of half-animal and half-human origin, are far more beast-like in appearance than man ever was, even in those early ages. Therefore, when we say that man, in early geological periods, was 'ape-like' in appearance, we merely mean that the evolving human monad passed through human bodies which at one stage of their evolution had what now would be called certain modified yet ape-like looks; but these, as time passed, became more and more refined and human in appearance until they are what they are now.

Professor Wood Jones corroborates the Theosophic viewpoint when he says:

> We may say that not only is he [Man] more primitive than the monkeys and apes, having become differentiated specifically in an extremely remote past, but also that he has been a creature which walked upright on his two feet for an astonishingly long period.*

Likewise Professor Boule, of Paris, concludes, from a close study of the skeleton-fossil of the individual discovered in 1908 at La Chapelle-aux-Saints, that man had

> been derived neither from the Anthropoid stem, nor from any

*'The Problem of Man's Ancestry.'

other known group, but from a very ancient Primate stock that separated from the main line even before the giving off of the Lemuroids.*

Yes, provided that we add that that 'very ancient Primate stock' was man himself — not man as we now know him, but the man of that geologic period, which period Theosophy states to have been in the Secondary times; more definitely in the Jurassic Age, early. Nor did the human stock 'separate from the main line,' because man was himself that 'main line.'

It was very unfortunate that the calm, conservative attitude of mind which all true scientists should have, has so often been departed from in former years by enthusiastic proponents of accepted scientific theories. Haeckel, for instance, the anthropologist, palaeontologist, zoologist, and what not, used to teach — and it was accepted as a fact of Nature, because the great Haeckel taught it — that in the respective embryos of man and of ape the differences between them could not be distinguished until the fourth or fifth month of pregnancy — a teaching which was not true. As Professor Wood Jones says, it is a teaching whose results we now must take time and energy to undo. The differences between the embryo of the ape and the embryo of man are noticeable far earlier, embryologically speaking, than the fourth month of intra-uterine life.

I was looking this morning at an interesting picture. It was the picture of the embryo of a gorilla a short time preceding birth; and this curious little beasty was an ape all through, as was to be expected. The horrible

Ann. de Palæontologie, 1912.

bestial mouth was there; the long arms; the unmistakable features and specific characters of the pithecoid type — all were there. Yet it was more humanoid in appearance than its parents were; it was more humanoid or humanlike in appearance than it itself would have been, had it lived and grown to adulthood. The brain-case was relatively larger and more human in shape, the forehead was taller and nobler than that of the receding forehead of the adult gorilla. Its foot approximated much more closely to the normal human foot in appearance; and while these are but superficial features of judgment, being mere resemblances, yet they very properly can be employed in argument, and the Darwinists and neo-Darwinists and transformists are the last to object to it, because their own theories are, as I have shown before, so widely based upon resemblances between man and ape.

Why is it that the infant ape should appear to be more human in general and in detail than does the adult?

It is well known that the baby ape is more humanoid or humanlike than is the adult into which it grows. As growth proceeds the forehead recedes, the mouth becomes still more bestial, the foot becomes more typically the hand-foot of the pithecoid stock, and in many other respects, as for instance in the protruding jaw, the typical ape-appearance is acquired.

What is the explanation of this problem, and of the increase in bestial appearance — the larger departure, so to say, from the humanoid towards the more pithecoid? And also towards the type, now extinct, which

furnished the other half-parent of the pithecoid strain?

The Theosophist says that the more human appearance of the early ape-embryo is a case of reversion to the former type of a far past geologic time, towards the human half-parent of the progenitors of the present ape-stock; and because the particular pithecoid strain, indwelling in the germ-plasm of the cell which brings the pithecoid individual to grow and to develop into its adulthood — as that cellular strain or potency seeks to express itself, it follows of necessity the only path open to it, its own path. It climbs its own ancestral or genealogical tree.

Nature always follows grooves; it always takes the path of least resistance, follows the path of the pioneers who have gone before. All forces in universal nature do this: electricity as an example in point. Nowhere in Nature do you find a natural force or an evolving entity following the path of greatest resistance. A biologic habit once established, will prevail until it is succeeded by the growth and dominance of a succeeding habit; and it is the essential work of evolution, so to say, to produce ever nobler courses, ever nobler habits, than those which had preceded the newer.

Consequently, the pathway which has once been opened is automatically followed by all evolving entities that are included in any particular group or stock or race or strain coming along behind.

It is the teaching of Theosophy that the pithecoid or ape-stock, in a far remote past, in the Miocene of the Tertiary Period, sprang from the human stock on one side and from a quasi-beast — Simian — ancestry on

the other. Thus you will understand why the ape so closely resembles man in some things and shows such immense dissimilarities from man in other things — in the nobler characters and features which man has.*

Similar was the case with regard to the lower simian stocks, the monkeys; but that event happened at a period still more remote in geologic time, to wit, in the Mesozoic Period, during the period of existence of what we call the 'mind-less' human races. In those far back days, these particular crossings were almost invariably fertile, for the simple reason that matter was then far more plastic than it now is; matter had not yet set into the grooves that it now follows.

Thus the apes have and the monkeys have traces of human blood in their veins; the monkeys a single dose, so to say of the nobler strain, and the apes a double dose of the same. But *no man* has one drop of either simian or pithecoid blood in his veins.

I weigh on this point with emphasis because the other idea, that of the ape-ancestry of man, is so diffi-

*Such is the case with the anthropoid apes. The touch of humanity still within them from their early human half-parent still works within them, but is over-shadowed in power, in influence, and therefore in biologic consequences, by the stronger beast evolutionary strain. Nevertheless because our earth and its entire groups of inhabitants of all kingdoms are even now beginning what Theosophists call the Ascending Arc of evolutionary development, the power of the human influence in the ape-stock now surviving, will become still stronger as future ages roll by into the ocean of the past. This means that in distant future time the apes will slowly become more human-like than now they are.

cult to eradicate. Though it is not now accepted by most modern biologists, curiously enough it remains alive. People are averse to changing their minds in relation to what they think are proved facts. It is a pitiful thing to state, but it is a true thing, that men and women usually do not like to think. They like to have their thinking done for them, as has often been remarked. Is it not true? Old and worn-out ideas, ideas which are actually behind the knowledge, scientific and other, of the day, still remain in our minds; the old theories still abide and plague us.

It was Darwin who in his book *The Descent of Man* gives voice to his opinion that the origin of man is to be found in an anthropoid ape living in a remote geological period; and scientists since his day have elaborated the theory; and, as said, despite the newer and vastly wider light thrown on the problem of evolution by modern research, there are found today men who want to teach this outworn theory in our public schools, as being a résumé of the facts of Nature, as far as man's evolutionary past is concerned. It sounds incredible, but such is the case.

Let me read to you a few passages from Darwin's *The Descent of Man* in which this theory is expressly stated.

In chapter six, he says:

> Now man unquestionably belongs in his dentition, in the structure of his nostrils, and some other respects, to the Catarrhine or Old World division [of monkeys]. . . . There can, consequently, hardly be a doubt that man is an off-shoot from the Old World simian stem.

Again, from the same chapter:

If the anthropomorphous apes be admitted to form a natural sub-group, then as man agrees with them not only in all those characters which he possesses in common with the whole Catarrhine group, but in other peculiar characters, such as the absence of a tail and callosities, and in general appearance, we may infer that some ancient member of the anthropomorphous sub-group gave birth to man.

Again, from the same chapter:

But we must not fall into the error of supposing that the early progenitor of the whole Simian stock, including man, was identical with, or even closely resembled, any existing ape or monkey.

Obviously not, since these are contemporaneous.

We are far from knowing how long ago it was when man first diverged from the Catarrhine stock; but it may have occurred at an epoch as remote as the Eocene period.

And finally, please listen to this gem:

The Simiadae [that is to say, the anthropoid apes, the man-like apes] then branched off into two great stems, the New World and Old World monkeys; and from the latter at a remote period, Man, the wonder and glory of the universe, proceeded.

The more enlightened theory, i. e., that the anthropoid and monkey-stocks, the anthropoids in particular, sprang from man as their half-parent probably (Theosophy says actually) in a far-gone period of geological time — not as degenerate men however: this theory in differing forms is the one which was in greater or less degree hinted at or upheld by a number of very eminent zoologists before and after Darwin each of course after his own manner. I may mention the Frenchman de

Quatrefages, several equally eminent German biologists, and possibly even the eminent modern author and anatomist Wood Jones, also Klaatsch of Heidelberg University, and apparently Osborn of Columbia University. Some or all of these eminent men uphold the theory that the anthropoid stock may have originated wholly or partly in and from the human stock. These men may differ as among themselves, but the root-idea seems to be common to them all.

The idea is also set forth by some die-hard proponents of the older and now more or less rejected evolutionism that preceding man's evolution through the pithecoid and other simian stocks, he even passed through quadrupedal mammalian forms, of which the mammalian quadrupeds on earth are today the modern descendants. But let me remind you what Professor Klaatsch has to say about that idea — merely echoing, by the way, what many another great man has said to the same point in former years: "Man and his ancestors were never quadrupeds like the dog or the elephant or the horse."

This renowned anthropologist further states emphatically that monkeys and apes are "degenerated branches of the pre-human stock"; which, as far as it goes, is precisely the teaching of Theosophy, which, however, claims that this is but half the truth, adding that the primitive human stock was but the half-parent of the original ancestors of the modern pithecoids. This does not mean, however, that monkeys and apes are or were degraded men, but that they were in part human, and in part animal — derived from an early

human stock on one side, and from an early animal stock on the other; and that they have since shown a strong tendency to revert to the types of former geologic apes.

The Darwinians and the neo-Darwinians still say that man belongs to the same sub-phylum or stock that the apes and monkeys do. If he belongs to their sub-phylum, he is either their descendant or their ascendant. Now if man sprang from the apes, how is it, please, that he has lost the specific characters or features which mark the anthropoid and lower simian stocks, and has wandered back in so many respects to an identical basal mammalian simplicity of structure which he must have possessed before, thus violating one of the best known of the biological laws, called the Law of Irreversibility, which sets forth that in evolution no entity losing an organ or a character or a feature, takes that identical organ up again, or regains it; but that if the recurrent conditions of environment are ever similar to what they were before, he then gains new organs suited to these recurrent conditions in the new circumstances in which he finds himself. Louis Dollo has done some remarkable work in proof and in demonstration of this Law of Irreversibility, which is today accepted by all representative biologists.

Thus if man cannot have been derived from the apes and the monkeys, as is now very generally accepted by biologists, and yet is the most primitive in origin of all the mammals on earth, what is the logical, the inevitable, deduction that we must make? It is this: that belonging to their sub-phylum or their stock, as

they say, and not being their descendant, he must be their ascendant, their progenitor. That is precisely what we say, although we explain the facts in a very different and, we believe, more convincing way.

Darwinism, as his method has been commonly called, became the favorite scientific evolutionary theory of the time. Nowadays it is more or less moribund, dying; but there are still a number of 'die-hards,' 'won't-give-ins,' who cling to the old Darwinian ideas; yet they belong, for all that, rather to what is called the neo-Darwinian scheme, which is Darwinism more or less modified by other natural facts, which have been discovered and investigated to some degree since Darwin published his important book, *The Origin of Species* in 1859.

We Theosophists do not say that all that Darwin taught is wrong, or that all that the neo-Darwinians teach, is erroneous. That position would be absurd. On the contrary, the Theosophist finds that there is some truth in the explanation of the facts of Nature which Charles Darwin and his followers investigated and supposed that they had found out. Nor do we say that the theories of Lamarck, Darwin's predecessor whom Darwin so largely followed, are altogether wrong. We say that there is some truth in them both, particularly in Lamarck's idea or intuition of the appetence innate in the organism striving in its environment — in other words, the inward urge of the evolving organism towards action upon that environment. Indeed, speaking generally, there is some truth in the larger ideas of all great men. It is indeed great

men who have adopted and elaborated the theories of progressive development of the human stock and of the stocks below man, and they have accumulated a large number of natural facts, which in larger or smaller degree furnish some support for those theories. We do not deny an actual fact nor any number of actual facts.

As we have pointed out before, the scientists, when they limit themselves to the elucidation and classification of the facts of Nature, are our best friends, and we very gratefully acknowledge the help that their researches have given to us, in more fully collecting and understanding the intricate problems involved. But it is a vastly different matter when these same men undertake to raise upon these natural facts, various theories or speculations or hypotheses, call them as you will, and to pass these off upon a naturally trusting reading public as established facts of Nature. We reserve our right, as free-thinking men and women, to accept or to reject any such hypothesis or theory exactly in the degree that we find it to be true or untrue.

As a matter of fact, what we have claimed, and what we have been teaching for sixty years past, more or less, is this: that the evolution of man and of the beings below him, and of the universe itself, cannot be logically and completely explained on accepted scientific lines nor by the alleged facts of science depending solely upon physical and chemical agencies. These are not the only factors working in the evolution of beings; and the main divergence (leaving other important facts aside) between the Theosophical view of

evolution and those theories hitherto current in the world, is this: that the latter refuse to admit a psycho-vital engine or motor behind and within the running physical machine — or rather engineers, call them spiritual entities if you like.

We claim that there are designers in the world — designers of many degrees, vast hierarchies of them, infilling the Cosmos, and in fact forming the invisible part of the Cosmos itself. They are the origin of the life-forces working through the life-atoms of all evolving entities; and it is in these designers that we live, and move, and have our being, even as the cells and atoms of a man's body — those small and elemental lives — live and move and have their being in him; further, that the working of these designers is *de facto* neither fortuitous, random, nor haphazard, but is essentially the result of the purposive and teleological striving of these designers towards a larger and more perfect expression of their indwelling and native powers.

This again is one of the largest differences between the Theosophical and the accepted scientific view of evolutionary development. We assert that natural forces, the indwelling powers in these designers, work towards a definite or purposive end; while, on the other hand, the popular scientific theories avoid or disregard this vitally important question, and, usually tacitly, postulate fortuity, chance, or the random haphazard origination of species and biological variations.

Charles Darwin himself, in the opening words of the fifth chapter of *The Origin of Species,* explicitly declares that he wrongly uses the word 'chance' in con-

nexion with the origination of species, saying that it is a *"wholly incorrect expression,"* but that this word 'chance' nevertheless suffices to set forth our ignorance of the actual cause of specific variations. Strangely enough, he then immediately proceeds to set forth the cause of which he has just confessed he was completely ignorant — 'Natural Selection' — resulting in the survival of the fittest.

10. Man and Anthropoid — II

IN *The Scientific American* some years ago* there appeared an extremely interesting article called 'Dawn-Man or Ape' by Professor William King Gregory, Professor of Vertebrate Palaeontology in Columbia University. He is apparently of the neo-Darwinian persuasion, and I think I may call him — with due respect to the eminent man — a Darwinian 'die-hard.'

In this article, Professor Gregory says, in discussing the question of the evolution of man from the apes, as alleged by the Darwinian theory:

> In other words, even if we did not have the chimpanzee we should have to infer its existence as a sort of half-way station in the long road of ascent from the primitive Eocene primates. Darwin's theory that man is a derivative from the anthropoid ape-stock, although not from any existing type of ape, accounts for hundreds of such peculiar resemblances between man and the ape. And what other scientific hypothesis can do this?

With all due respect to Dr. Gregory, I am compelled to point out that we have here precisely the same spirit of vaulting enthusiasm, of what is to me exuberant imagination, that was manifest and that wrought such curious work in a biological sense in the cases of Thomas

*September, 1927, p. 232.

Henry Huxley in England and Ernst Heinrich Haeckel in Germany — inventors, these two, of imaginary steps in their evolutionary ladder of life; for does not Gregory say in the same spirit, "Even if we did not have the chimpanzee we should have to infer its existence" — in other words, we should have to invent one? Fortunately, the chimpanzee exists; but the idea of substitutive invention is there. Enthusiasm for biological invention is there.

As regards the 'hundreds' of such peculiar resemblances between man and the ape, such resemblances most unquestionably exist, though 'hundreds' seems to be a large number. But this is another example of the Darwinian method, just as Huxley and Haeckel followed it: they emphasized and over-emphasized the manifold points of resemblance between man and his younger brothers, the apes — or rather his degenerate half-children, the apes and the monkeys; but they omitted to point out at their full value the host of dissimilarities, the wide divergences, that exist in even greater number between the human stock and the anthropoid and lower simian stocks. They recognise them in some cases, but denigrate their value, underestimate their importance, or slur them over as things which are so obvious that they need scarcely to be mentioned with more than a passing allusion to their existence; and I must point out that this method of suggestion of the unimportance of important features or characters differing as between the two stocks, has a direct psychological influence upon the readers who see them. As I have said before, the reader takes such statements at their face-value,

without further examination, as established facts of Nature, which most emphatically they are not.

In a despatch of the Associated Press, Sir Arthur Keith, Professor of the Royal College of Surgeons in England, is reported to have said:

> The evidence of man's evolution from an apelike being, obtained from a study of fossil remains, is definite and irrefutable, but the process has been infinitely more complex than was suspected in Darwin's time. Our older and discharged conception of man's transformation was depicted in the well-known diagram which showed a single file of skeletons, the gibbons at one end and man at the other.

Yes, we all know that picture: it is still in many of our museums, and is still taught in many of our biological books. These also show intermediate stages of bestial or sub-human creatures, which are announced as having actually been the intermediate steps or stages of man's evolution from the ape; yet in no case, please mark well, are these creatures announced to the trusting reader as being mere offsprings of the scientific imagination of their reconstructors, reconstructed perhaps from a portion of a fossil skull, or perhaps from a portion of a jaw or from a tooth or two, or one or two or three of these together. From and around these scanty fossil remains have been built up the various pictures of more or less manlike creatures, growing gradually more beastly and apelike as they descend the scale towards the gibbon or the chimpanzee or the gorilla, as they go down the file towards the apes and monkeys.

I may point out here that the mistakes and faults of these imaginary reconstructions are rarely, or never

perhaps, obvious to the trusting student or reader; and yet a striking instance of such false reconstructions may be very well shown with regard to Neanderthal man, who has always been pictured, in these supposed reproductions of former men, as having had no human nose, perhaps pictured as a being with a flat, squat nose, somewhat like those of the Catarrhine apes of the old world. But we now know that this was not true, as is well illustrated in the case of the fossil skeleton or individual discovered in France in 1908, at La Chapelle-aux-Saints; for the skull of this skeleton had prominent nose-bones, and so far as I know, the skeleton belonged by unanimous consent, to a Neanderthal man.

Professor Wilder has recently shown that this individual must have had an eminent nose, a very pronounced nose; and yet for a long, long time we were taught that the physiognomy of this former living man comprised a nose — if a nose at all — which approximated to the nasal apparatus of the ape.

These reconstructions are, by the necessities of the case, in very large part imaginary; and it is an unfortunate thing that they should still be exhibited as representations in the direct line of man's ancestry; that our children should see them and be taught the falsehood that these imaginary reconstructions represent man as he formerly appeared at different stages of his alleged ascent from the anthropoid.

Sir Arthur continues:

> In our original simplicity we expected, as we traced man backwards, that we should encounter a graded series of fossil forms — a series which would carry him in a straight line

towards an anthropoid ancestor. We should never have made this initial mistake if we had remembered that the guide to the world of the past is the world of the present.

As I have said before, there is no such end-on, uniserial, rectilinear evolution of man from the protozoan upwards, as the Darwinists have stated it. Yet evolution is indeed an end-on progress; it is indeed a uniserial path; but it is not rectilinear or in a straight line, and it does not proceed along the pathway which the Darwinists and the neo-Darwinists have claimed and still claim for it.

In this assertion the Theosophists no longer stand alone, for we have a large and growing and important school now teaching pretty much the same thing with ourselves.

Continuing from Prof. Keith's reported remarks:

> In our time man is represented not by one but by many and divers races — black, brown, yellow, and white; some of these are rapidly expanding, others are as rapidly disappearing.
>
> Our searches have shown that in remote times the world was peopled, sparsely, it is true, with races showing an even greater diversity than those of today, and that already the same process of replacement was at work. To unravel man's pedigree we have to thread our way, not along the links of a chain, but through the meshes of a complicated network.

Just so! How pleasant it is to read the apologetic acknowledgments of the mistakes formerly so enthusiastically and positively affirmed as facts of Nature, especially when these come from an honest antagonist!

A few years ago it was a scientific heresy of the deepest dye to suppose that man had evolved in any

other manner than in that outlined in scientific books, and supposedly along the line of ascent set forth in reconstructive work on skeleton and muscle in our museums. Such evolution, we were taught as an axiom, yea, as a scientific dogma, had proceeded along that certain and particular pathway from the protozoan to man which Professor Keith now very rightly and aptly calls a 'discharged conception.'

To continue the quotation:

> We have made another mistake. Seeing that in our search for man's ancestry we expected to reach an age when the beings we should have to deal with would be simian rather than human, we ought to have marked the condition which prevails among living anthropoid apes. We ought to have been prepared to find, as we approached a distant point in the geological horizon, that the forms encountered would be as widely different as are the gorilla, chimpanzee, and orang, and confined, as these great anthropoids now are, to limited parts of the earth's surface.

Have we not been pointing out that a theory *per se* is not a fact of Nature, and that inevitably it would in good time be replaced by a theory more closely approximating to natural truth? Let me say again that we Theosophists in no circumstances whatsoever would hinder the exercise of the utmost liberty of thought and investigation. We stand for such liberty; we have always stood for it; and always will we stand for it. Yet we draw the sharpest kind of distinction between a theory evolved from some man's mind and the facts of Nature. These latter are the ultimate tests in any proof of a system; not theories and hypotheses, although our scientists tell us that the use of the 'scienti-

fic imagination,' which by the way is their own term and much used by them, is a most excellent help in their work.

We admit it; we acknowledge it; and we say further: Go to it with all your strength of imaginative power; let us have more of that exercise of the imagination; only pray do not announce theories and imaginative exercises as being in themselves facts of Nature. Say rather: This is what we believe to be the truth. This is our interpretation of the facts of Nature.

I continue citing from Professor Keith:

> That is what we are now realizing; as we go backwards in time we discover that mankind becomes broken up, not into separate races as in the world of today, but into numerous and separate species. When we go into a still more remote past, they become so unlike that we have to regard them not as belonging to separate species, but different genera. It is amongst this welter of extinct fossil forms which strew the ancient world that we have to trace the zig-zag line of man's descent. Do you wonder we sometimes falter and follow false clues?*

This is good, and Theosophy agrees with it, although at first it sounds like a contradiction of the fundamental Theosophical teaching which we have constantly reiterated, namely that all stocks originated from the one main stock, the human. But this apparent contradiction can easily be explained. In tracing back from the present the history of the great stocks, it is

*Please understand that different 'races of men' means men much more like each other than does different 'species of men'; and that different 'species of men' are more like each other than are different 'genera of men.'

true that they appear more distinctive and differentiated *up to a certain period,* which we call the Fourth Root Race.

At about this time the world was teeming with a large number of evolutionary strains, because at that period material evolution in various directions had reached the acme of its power. The various types of mankind were more widely separated from each other, not only as regards contemporaneity and succession, but likewise in frequent instances as regards type than are the races of today.

But in times *preceding* this great Fourth Race, the farther back we go in geologic time, the more closely do the stocks begin to approximate towards each other, so far as type is concerned; in other words they become more and more generalized the nearer we approach their origin at the common point of departure in ages far preceding that of the Fourth Root Race. It is in those more generalized and far earlier types, having ancient or modern representatives as the case may be, that we find a greater kinship, biologically speaking, among the various stocks.

Professor Keith ends the report quoted from:

> Was Darwin right when he said that man, under the action of biological forces which can be observed and measured, has been raised from a place among anthropoid apes to that which he now occupies? The answer is yes! And in returning this verdict I speak but as a foreman of the jury — a jury which has been empaneled from men who have devoted a lifetime to weighing the evidence.

That declaration sounds extremely convincing. But

let us point out that other juries, empaneled from other men who likewise have spent a lifetime in the study of the evidence, tell us a different tale; and, as I have said, the ranks of these latter are growing daily greater.

Dr. Henry Fairfield Osborn, in an address given before the American Philosophical Society in Philadelphia is reported to have said:

> The ape-man theory should be banished from our speculations and from out our literature, not on sentimental grounds, but on purely scientific grounds, and we should now resolutely set our faces towards the discovery of our actual pre-human ancestors.
>
> Those ancestors were neither human nor ape, but a distinct family, enacting the prolog and opening acts of the human drama sixteen million years ago.* The scene of their activities must be found in the region embraced by Chinese Turkestan, Tibet and Mongolia.

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*It is very remarkable that Professor Osborn gives almost the exact length of time stretching backwards into the past — sixteen million years ago — required to reach primitive man, that Theosophy teaches as having been the period of the first appearance of truly physical man, who had been preceded by semi-astral man, and before that by astral man. The first truly physical men existed, says Theosophy, eighteen million years ago.

Prof. Osborn further places the age of man *in his present stage,* at one million years. It is also our Theosophical teaching that man, as he now is in his *present evolutionary cycle,* has been so for one million years more or less. It should be noted, however — and the point is of some importance — that this 'one million years' applies to our present humanity or Fifth Root-Race in its present evolutionary stage *only since the time when it became a race sui generis,* i. e., a race with its own typical racial characteristics, and more or less separated from the previous or Fourth Root-Race. Actually the origins of our

Could the contradiction between two eminent biologists be more absolute? Of course, while Professor Osborn speaks of the ancestors of man as having been neither human nor ape, he gives utterance merely to the common biologic theory that these two stocks were derived from some animal neither human nor anthropoid; but this, of course, the Theosophist does not admit. He knows of no proof that the idea is anything else than a theory elaborated in an attempt to find a common ancestor for the two classes of the Primates most closely resembling each other, man and ape; but our Theosophical teachings tell us very clearly, and the facts of anthropology and biology seem to us to prove our case fully, that that common ancestor was *man himself* — not man as he now is, of course, but man as he then was; less evolved than present mankind, as is

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present humanity or Fifth Root-Race extended several million years farther back than this 'one million years' mentioned.

Professor Keith says that it is only about one million years since man diverged from the ape-stock, or perhaps, rather, from that common ancestor of man and the ape about which so much is said and so exceedingly little is known; and that this separation of the two stocks occurred, as alleged, in the beginning of the Miocene Period of the Tertiary Age of geology. Professor Keith is very modest indeed in his biologic computations of geologic time. Only one million years, according to Keith, since the beginning of the Miocene! Other authorities, equally great, differ widely from Keith's time-period. For instance in *Organic Evolution* by Richard Swan Lull (1921), various dates are given as estimates of the duration of these various geologic periods; and the Tertiary, to which belongs the Miocene Period, is given by Matthew as of nine million years in duration — while Barrell is not satisfied with less than sixty million!

to be expected, but yet no animal as we understand that word, and no ape in any sense, but original, primitive man himself.

You may call him pre-human if you limit the term 'human' to man as he now is. But the strain from which humans come, from which men are derived, was human to its source on this earth, and its origin was in godlike creatures, who came to our earth in the earliest days of the planet's life; and, as it were, casting the seeds of their lives into the developing germs, originated the human stock, these very developing germs or 'life-atoms,' as we call them, being those with which these godlike creatures were spiritually, psychically, and therefore magnetically connected in a former period of evolution in times so vastly far-distant that we call it another manvantara.

Osborn continues:

> It is our recent studies of behaviorism of the anthropoid ape as contrasted with the behaviorism of the progenitors of man, which compel us to separate the entire ape-stock very widely from the human stock.*

So do the Theosophical teachings separate the two stocks very widely. Only I do not understand what Professor Osborn means by the "behaviorism of the progenitors of man," because to study 'behaviorism' you must know the living creature, and I do not know

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*It is interesting to note that Professor Keith also contrasts the behaviorism of man with the behaviorism of the apes, and attempts to use this to show a kinship between apes and monkeys and man. Professor Osborn draws diametrically opposite conclusions from the same set of ideas and facts.

any living creatures who are the progenitors of man.

I continue quoting from Dr. Osborn:

> The term ape-man has been forced into our language along a number of lines, and even the term anthropoid has come to lose its significance. Ape-man has gained its prestige through early explorers and travelers who represented the anthropoid apes as walking on their hind feet. We have since discovered that no anthropoid ape walks erect; the gibbon balances himself awkwardly when he comes down from the trees, but all other apes are practically quadrupedal in motion, except, possibly, in self-defense, when they rear as a horse would rear.
>
> Of all incomprehensible things in the universe, man stands in the front rank; and of all the incomprehensible things in man, the supreme difficulty centers in the human brain, intelligence, memory, aspirations, powers of discovery, research, and the conquest of obstacles.

This is the language of a Theosophical seer; but let me ask: Why does this most remarkable scientific thinker speak of man as being so entirely 'incomprehensible'? Let me tell you why as I see it. It is because, great as he is in his line of scientific work, honest and courageous as he obviously is, he nevertheless is still more or less, unknown to himself, under the psychological influence of the old materialistic teaching that there is nothing in man that can be known except his physical body and its 'psychologic' activities!

11. The Moral Issues Involved

THE QUESTION of evolution has become what is called a burning one, because since the conclusion of the last great war men and women have come to realize that there is a moral question involved in the teachings concerning even the physical derivation of the human race. Such men, for instance, as Professor Henry Fairfield Osborn and Professor Frederick Soddy, to mention only two, have called attention to the fact that the teachings which men mainly based their system of living upon prior to the great war, lacked necessary and essential moral elements, and that that system consistently lacked these moral elements from the day when those particular evolutionary theories were first framed.

But while the teachings of Darwin are more or less a back number, to use the vernacular, that is to say are more or less moribund or dying today, a number of eminent biologists are still trying to resuscitate those older teachings; but they will fail unquestionably, because the strong current of discovery and the consensus of opinion of the larger number of eminent scientific men runs forcibly in another direction.

If the derivation of man from an inferior animal

stock were true, that is, if it were a fact of Nature, knowing as we do that the universe pursues logical courses and that man has in his breast a directing moral sense; then we should say: It is all right; no harm can come from believing in a fact of Nature.

But if, on the other hand, the teaching is based, as it is, not wholly on a fundamental truth but very largely on a speculative theory which is inherently lacking in moral power, and which man in following therefore follows in a necessarily immoral manner, then the case is vastly different; and all thinking men and women find that it is time to call a halt, and to investigate the bases upon which this former speculative thinking rested. Investigate them impartially, not from the standpoint of partisanship nor from the standpoint of a *parti pris,* but making a searching investigation into the actuality of the theory itself — whether it is based on Nature or whether it is one of those many fads or speculations or hypotheses partly based on Nature and partly evolved from the speculative imagination of the framers of it or of them.

Let me turn to one of the great men whom I have just mentioned, Dr. Henry Fairfield Osborn. Writing in the *Encyclopedia Britannica,** he speaks forcibly as regards the causes of evolution as follows:

> The net result of observation is not favorable to the essentially Darwinian view that the adaptive arises out of the fortuitous by selection, but is rather favorable to the hypothesis of the existence of some quite unknown intrinsic law of life which we are at present totally unable to comprehend or even

*Eleventh edition, Volume XX, page 591.

conceive. We have shown that the direct observation of the origin of new characters in palaeontology brings them within that domain of natural law and order to which the evolution of the physical universe conforms. The nature of this law, which, upon the whole, appears to be purposive or teleological in its operations, is altogether a mystery which may or may not be illumined by future research. In other words, the origin, or first appearance of new characters, which is the essence of evolution, is an orderly process so far as the vertebrate and invertebrate palaeontologist observes it.

What a change from the scientific views of fifty years ago! I would like to point out in this truly remarkable paragraph the emphasis laid upon the purposive or teleological principle implicated in this unquestionable truth. 'Teleological' means that which tends to a well-defined end or object.

Professor G. W. Patrick of the University of Iowa writing in *The Scientific Monthly,* July, 1926, on the broader views of twentieth-century ideas of evolution, says:

Another feature of twentieth-century evolution is the lesser emphasis put upon the notion of nature as a battlefield — as a scene of sanguinary and ruthless struggle in which the fittest survives. This was one of the unhappy ideas associated with the name of Darwin, even until recently made the excuse and vindication of every evil thing in human society. It is unfortunate that a part of this precious twentieth century has got to be spent in 'unthinking our convenient Darwinism.' Professor Patten, writing as a biologist, says that the altruism and cooperation which we are coming to recognise as the absolutely indispensable condition of further social evolution, are basal and primary factors in the grand strategy of evolution in Nature itself.

In fact, there seem to be indications that the whole evolu-

tionary nomenclature of the nineteenth century was unfortunate. Perhaps we need a new set of terms all around to describe that great world-movement which for seventy-five years has gone by the name of *evolution.* Many biologists are beginning to question the pre-supposition of the nineteenth century that the concepts of the mechanical sciences have any special prerogative in the interpretation of life and mind and society. Professor Haldane has gone so far as to reverse the order, and suggests that 'the idea of life is nearer to reality than the idea of matter and energy.'

I interrupt a moment. Here we find a reaction against the old idea of matter and energy as lifeless, soulless, unanimated, unimpulsed, dead things, combining helter-skelter, driven about space fortuitously, collecting together without coherent reason or order to form what we call life and men.

To continue the quotation:

And J. Arthur Thomson believes that the formulae of physics and chemistry are no longer adequate for the description of behavior or of development or of evolution. It is generally felt that Herbert Spencer 'put something over' on the scientific world when he exalted a certain trio of concepts, namely, matter, motion, and force, whose redistribution was to explain the whole world.

Biologists of the present time are largely engaged in patient and persistent investigation in the field of genetics, wisely refraining from speculation as to the causes and meaning of evolution. But it is difficult to refrain from all speculation, and when biologists do enter the field of philosophy and speak of theories of evolution, it is interesting to notice the new terms which they are using. We hear much of creative evolution, not always in the strict Bergsonian sense. We hear of 'emergent evolution.' We hear evolution described as 'a struggle for

freedom,' or as a process in 'self-expression.' We hear of the material fabric of nature as being 'alert' rather than 'inert.' We hear of 'the grand strategy of evolution.' We even hear of evolution as a process of achievement, in which life and mind and moral conduct and social organization and science and art are values which have been won.

Again, what a change from the scientific views of fifty years ago!

Professor L. T. More of Cincinnati University, writing in the April, 1927 issue of the well-known review, *The Hibbert Journal,* on 'Man's Nature' has the following to say, among other things of interest, on the inadequacy of the mechanistic biologic theory of Transformism, usually mis-called Evolution, and of the misuse of that theory, such as it is, by most of the popularizers of scientific hypotheses. He writes:

For many decades the world has been governed by the philosophy of progress and evolution which was established by the work of the biologists of the nineteenth century. To them we owe not only the solid foundations of the science of biology, but also the dogmatic assumptions of the Darwinian theory of natural selection and a philosophy of monistic naturalism.

Let me interrupt a moment to say that these scientific theories are not proved facts of Nature, as I have pointed out several times before. They are speculations, hypotheses, elevated to the rank of truths of being; but now in common with us our modern scientific theorists know better.

Professor More continues:

In the meanwhile, later biologists have proved, by their own experimental work, that the Darwinian theory is entirely inadequate to explain the appearance of new species, and they

have found no other satisfactory cause of variations. They are thus reduced to the position of asking us to accept a general theory of evolution on faith.

This seems to imply that there is a scientific church wherein if we wish to be in good standing and popular, and not to be considered as 'cranks' by the unthinking, we must accept things on faith. The statement by Professor More we do not believe to be one iota overdrawn or exaggerated. He continues:

While these results are known by all well-informed biologists, they have permitted, without protest, the popularizers of science, the sociologists, and the clergy, to present the subject as one founded on positive evidence. And, still worse, students in schools and colleges are taught biology in such a manner that they are convinced that the special theories of evolution are established as indisputable facts, and that the philosophy of naturalism is the logical conclusion of those facts.

Professor More concludes the extract thus:

There is little wonder that the world at large confuses Darwinism with evolution, and atheism with biology and scientific theory in general. Popular accounts of 'missing links' are constantly appearing, and they are not contradicted authoritatively by biologists. And yet they know that to look for a 'missing link' means that we have not only the two ends of a chain, but also most of the intermediate parts. The truth is, we have one end of a possible chain, ourselves, and we have certain fragments of fossil remains which have some of our characteristics. But biologists do not know what, if any, animal ancestor forms the other end of the chain, or what links connect us with the past. . . .

Since the biologist knows neither the cause nor the method of variations, he is unable to predict the characteristics of even the next generation.

Is not this a most remarkable plea of ignorance, and yet how honest and straightforward and forthright it is! Yes, evolution is indeed a fact of being. Growth, learning, advancement, progress, is the general law of the universe. That is one thing which any sane man today admits; but the theories, the ideas, the dogmatic assumptions, the teachings, the hypotheses, the fads, of any particular popularizer of science, be he small or great, are another thing; and we, as thinking men and women, have perfect right, and are upheld by the greater biologists themselves, in accepting such ideas or in refusing to accept them, as we please and as we will or as we nill, in other words, as we find them true or untrue.

It is the so-called popularizers of science, many of them nevertheless very earnest and sincere men, with whom we Theosophists have bones to pick, if indeed we have bones to pick with anybody; at any rate, these smaller men are the ones with whom we differ, and in some cases with whom we must differ positively, because instead of confining themselves to the noble principles of natural research, they are too often given to dogmatic asseverations concerning facts which have not yet been fully understood or explained.

In *The Story of Philosophy,* Dr. Will Durant says:

> With this new orientation, evolution appears to us as something quite different from the blind and dreary mechanism of struggle and destruction which Darwin and Spencer described. We sense duration in evolution, the accumulation of vital powers, the inventiveness of life and mind. . . .
>
> We are prepared to understand why the most recent and

expert investigators, like Jennings and Maupas, reject the mechanical theory of protozoan behavior, and why Professor F. B. Wilson, dean of contemporary cytologists, concludes his book on the cell with the statement that "the study of the cell has, on the whole, seemed to widen rather than to narrow the enormous gap that separates even the lowest forms of life from the inorganic world." And everywhere, in the world of biology, one hears of the rebellion against Darwin.

Let me here repeat, what I have so many times said: we Theosophists do not admit the existence of any so-called inorganic or lifeless matter; with us everything is living because everything is a focus of force and therefore of life, for life is energy; life is force. What else can it be? Energies and forces, according to Theosophy, are simply manifestations or phenomena of life. Life is the living fountain, and energies and forces are the streams pouring forth from that fountain.

In the 81st Annual Report of the Smithsonian Institute Dr. John M. Courtel writes on the nature and foundation of evolution:

> Evolution is probably more misunderstood than any doctrine of science. . . . The general meaning is that the plant and animal kingdoms have developed in a continuous, orderly way, under the guidance of natural laws, just as the solar system has evolved in obedience to natural laws.

Yes, we say so too; only these 'natural laws' are merely the manifesting activities of indwelling intelligences, 'the gods,' if we may use an unfashionable word. These laws are the expression of the activities of their vegetative or vehicular side, as it were, while

the kinetic or active side which they possess, is that which manifests on their own higher planes, and is the expression of their high spiritual and sublimely intellectual activities. These latter activities are the root of the harmony, consistency, correlating nature which the universe manifests; while, on the other hand, it is the corporeal or vegetative side of their nature, so to say, which manifests the energies and forces which play through the physical universe that we know.

Dr. Courtel then points out that Darwinism is quite a different thing from evolution *per se;* as we have always said. He further says that Darwinism is only one of the attempted explanations of the evolutionary biologic phenomena of life. Evolution *per se*, he says, is an undoubted fact; but it is quite a different thing, he adds, whether any proposed transformist or evolutionary explanation or theory is a fact and adequate as an explanation of the natural phenomena of growth and progress. Not a single theory or hypothesis so far advanced, he declares, fits or covers all the facts known.

All this is exactly what we have pointed out so often. But what I wish to lay emphasis on here is the unfortunate moral effect which these transformist teachings have had upon the world. When men believe that they have a common spiritual ancestry, and spring from a common vital-spiritual root, and are journeying on together through vastly long periods of evolutionary development; when they realize that the blood which beats in the veins of each man is similar to, or perhaps almost identical with, the blood which beats in the veins

of all men, no matter how great be the differences between the various races; then men have a spiritual conception of life, which functions as a strong anchor by which, if necessary, they can hold the ship of life in times of stress or danger; believing this, following this, inwardly knowing this, they are not swept away from their moral moorings by false biologic teachings, born of physiologic and psychological fallacies and psychoses of various kinds, and eventuating in the conscious or unconscious belief, which is even taught to our little children, that life is a desperate struggle for superiority, in which each man must succeed through selfishness or 'go to the wall,' and that, among the religious minded, the devil gets the hindmost — if indeed there be a devil!

Now what has this biologic bogy of the past sixty years eventuated in? It has eventuated in the idea that man, being nothing but a transformed beast, without a directing soul or an over-shadowing spirit, is a creature of haphazard chance, without hope of a spiritual future, and ungoverned by any innately moral sanctions found in the operations of Nature itself, and that the only restraining forces are those of social conventions or an intangible kind of moral code arising out of opportunism, and the fear of being caught if his innate aberrant selfishness wanders too far from the straight road; or again in the idea that if indeed man has a soul, that soul is only some kind of effluvium arising out of chemico-physiologic action in and on the brain — or some similar nonsense.

These nightmares of the imagination — for they

are truly that — were largely responsible for the terrible struggle for material supremacy and power which the world is passing through.

Even Professor Frederick Soddy, ardent champion though he is of science as the great benefactor of the world of men, was driven by the logic of facts to voice in no uncertain terms the same conclusions. Knowledge was misused from lack of a restraining moral and spiritual influence.

Does it do any good to our little children to go into museums and see brutish creatures painted on the walls, or in picture-books, or to gaze at plaster-of-paris casts or statues of absolutely imaginary ape-like ancestors of man?

Professor Wood Jones recently wrote on the subject of the 'missing link' which anthropologists are so fond of constructing:

> Any so-called missing link would be very unlike the popular picture of a brutish, slouching creature made more horrible than any gorilla by a dawning touch of humanity. This missing-link picture must be deleted from our minds, and I find no occupation less worthy of the science of anthropology than the not unfashionable business of modeling, painting, or drawing these nightmare-products of imagination, and lending them, in the process, an utterly false value of apparent reality.

I have never used words as strong as these; yet this scientific man is one of the most eminent anatomists of today. His words carry weight whenever he speaks.

This quotation was taken from his pamphlet 'The Problem of Man's Ancestry' which he concludes as follows:

Man is no new begot child of the ape, born of a chance variation, bred of a bloody struggle for existence upon pure brutish lines. Such an idea must be dismissed by humanity, and such an idea must cease to exert any influence upon conduct. We did not reach our present level by these means; certainly we shall never attain a higher one by intensifying them. Were man to regard himself as being an extremely ancient type, distinguished now, and differentiated in the past, purely by the qualities of his mind, and were he to regard existing Primates as misguided and degenerated failures of his ancient stock, I think it would be something gained for the ethical outlook of humanity — and it would be a belief consistent with present knowledge.

Verily so. This is the teaching of Theosophy, minus a few phrases of no great importance; and Professor Wood Jones is not the only voice to be raised in protest, as we have seen.

Brush away from your consciousness the illusory notions that men are haphazard offsprings from dead matter, or sprung from merely animal progenitors, with neither spiritual origin nor spiritual individual character or faculties, and therefore with no chance for spiritual growth. These illusions exist in your minds only; they are not real things. Mentally, however, while they exist in the undeveloped mentality, they provide a very fertile source of impulses towards evil doing, because selfish men will invariably come to the fore and pervert action; they will influence other men in believing that there is nothing in them of a divine character, and that all that is in the world is for them to grab or to get, if they can, and to hold if they may, at the expense of their fellows' happiness and peace.

It is a lack of recognition of our essential oneness in our spiritual origin that allows the growth in the human heart of the evil fountain of selfishness, of self-seeking; for this is the root of all evil and of all evil-doing, so far as humans are concerned, as it is the cause as well of all individual misery and unhappiness; because from this evil fountain of selfishness, the child of our lower nature, there pour forth, if they can, when released from the benign and restraining influences of the higher nature, all the things which make life dark and sad and unhappy.

It is of ethics I speak, and they are beautiful indeed. Let me declare to you that ethics and morals are founded on the laws of the universe; because they are naught else than rules of harmony in human conduct, copying the harmony prevailing in the cosmic spaces. All that we need to do is to understand those laws, to realize them in our hearts, to take them into our consciousness; for then we shall be able consciously to follow the fundamental operations of the Universal Life, because thus we are in intellectual touch with those harmonies and fundamental operations.

We cannot be in touch with these basic universal laws until we banish from our minds utterly the idea that man is merely his physical body, a body unensouled, and evolved in the mechanical and uninspired method taught by the Transformists. We have to recognise man as a spiritual entity, a monadic center, whose origin is the heart of Universal Life. It is this inner spark of light, in man as in all beings, that furnishes and has furnished the evolutionary urge

towards producing ever fitter vehicles of self-expression.

Today our modern thinkers are slowly beginning to see and to admit this wonderful truth; or at any rate are beginning to have some dreamy adumbration of it as a basic fact of Nature, as the evolutionary impulse. By slow degrees they are moving more and more towards our position in this respect, as they have moved towards us in other respects, and we say, with gratitude to courageous and broad-minded scientific thinkers, and with the hope that their ranks may soon grow more numerous than they are: Heaven speed the day, for the benefit of our common humanity, of the coming of a still fuller recognition of this basic verity of life.

12. *Specialization and Mendelism*

I HAVE SAID that no one has ever succeeded in bridging the gaps separating the great groups or phyla of animal stocks, and therefore no one has been able to find that alleged continuous stairway up which man is supposed to have climbed to his present evolutionary status. Doubtless there have been in the past intermediate beings, or rather intermediate stages of life between these great groups; but the geologic record, so imperfect, has not yet revealed these so-called intermediate stages. Should they ever be discovered as fossils, they would doubtless be immediately acclaimed with joy by orthodox scientific transformists as the long sought for and always missing links. It is probable that these scientists would ignore the fact that they are nothing more than specimens of specialization of one or more of the great stocks below man; for we already know that all these great stocks have exhibited examples of aberrant evolution or rather of evolutionary specializations.

Thus these findings would in no sense be *de facto* 'missing links,' but offshoots from one or more of these great stocks, which offshoots have followed certain minor lines of progressive variation. In fact, each one

of the great phyla or groups or stocks, as we now see each one of such today, is but the point of evolutionary variation which they have reached at the present time, and by no means precluding still greater specializations in variability in the future. To put the matter in a nut-shell, each of these great groups or phyla is simply a large evolutionary development, a specialization, from the elementary zoologic roots.

Evolution and specialization are, in one sense, almost synonymous. If evolution means the unwrapping of that which is dormant or latent or sleeping, so does specialization mean the same thing. One great group, as is well known in zoology, or in botany for the matter of that, may take on the specialized forms or variations which are typical or type-forms of another great group, frequently lower. A mammal for instance, may take on variations of a bird-type or of a fish-type, and yet remain a mammal in both cases.

Consider the wide divergent evolution of the whale. The whale is a mammal, and at one time must have been a land-animal which for some unknown reason went down to the sea; and yet it looks like a fish and passes its life in the water of the ocean. If you have ever seen a picture of a whale or of a dolphin, which is also a sea-mammal, side by side with the picture of a shark, and if you were to place above these a picture of the extinct fossil *Ichthyosaurus,* they at first glance appear so much alike in general characteristics of shape and form, that you would say, if unacquainted with the anatomical features of these three creatures, that all three are different kinds of fish. Yet the shark is a

fish, and the Ichthyosaurus of the Mesozoic or Secondary Period of geology was a reptile, while the whale or the dolphin is a mammal. Fish, reptile, and mammal: three widely different stocks which have approached each other in general shape and habit through the influence of environment. That influence in these three illustrative cases has been so strong, though reacting against the inner urge or inner vital drive of the evolving entity in each of these three forms, that it has been prepotent in producing the fish-like body and habit. Though radically different anatomically and derivatively, they yet have the superficial likenesses of the marine fish-stock. But strip away the flesh in all these three cases and examine the skeleton of each of these three animals, and the three different stocks to which they respectively belong, become immediately discernible.

We might also instance the bat. The bat is likewise a mammal; and yet it has all the appearance and many of the habits of a bird; in fact, it is more of a true flier than any bird is, because virtually its sole mode or means of easy locomotion is flight. Its flight is so swift and silent, so rapid and so direct, that it very probably may be called the most wonderful flier we know.

All birds have legs and in some cases strong and powerful legs, and can stand and walk with ease and in some cases can run; but the bat, as you must have noticed yourself if you have ever watched one, is almost helpless unless it is in flight. Its movements on the ground or on the floor are extremely awkward. What induced the bat to leave the ground and take to the

air? What was the cause of this wide divergence of form and habit from the ancestral mammalian stem? Who can say?

Please remember in this connexion that 'evolved' or 'specialized' does not necessarily mean higher or superior, if we use the technical term of scientific books. It merely means the bringing out of that which is seeking expression, a larger degree of 'specialization.' Such multitudes of forms, diverging ever more from the primitive or root-stock, are always instances of type-specializations. Specialization is in all cases a mark of a greater distance from the origin of any such stock.

Let me illustrate what I mean. Take the elephant, a quadruped. Look at the development that the nose of the elephant has taken, called its trunk. Look at its immense fan-like ears. These are specific characters belonging to that beast, and they are found early even in the embryological record of that beast, therefore showing these specific characters go far back in time in the history of that strain.

Let us instance also the foot of the horse. Do you know what a horse's hoof is? It is the highly evolved and specifically developed toe-nail of the third digit of each of the four feet of that quadruped. That animal walks literally on the highly evolved and developed toe-nail of the elongated third toe of each foot.

Now there is no such specific characteristic as regards man's hands and feet in the evolutionary history of man, as is shown in the development of the human embryo. In fact, the horse's hoof is a far and wide evolution, a highly evoluted development from the

primitive progenitor of the equine stock. It is a specific character belonging to the equine race.

Here is an instance in point of what we mean when we speak of the far-flung specific evolutionary development of any one of the various stocks, and of the impossibility of the human strain's passing through it on its upward journey.

It is true also that other animals walk or move more or less in this manner, the ape, for instance: when it goes on all fours, as it usually does, it does not walk along plantigrade, or flat-foot fashion; it walks on its fingers, on the nails of the hands or on the knuckles of the hands, as you may easily see for yourselves if you will look at a walking or running ape. Somewhat similarly did the ancestors of the horse. All these are instances of specialization.

Specialization is as a matter of fact always a side issue. It is the following of a path which does not lead in the main evolutionary direction. It indicates at least a temporary arresting of *inner* evolutionary development, a running off into unessential bypaths — unessential, that is, from the standpoint of spiritual evolution. Thus, in a sense, all developments of the beast-stocks away from the primitive human strain may be said to be specializations as they diverged more and more widely from the main trunk, each following its own genealogical branching. Their opportunity, indeed their capacity, to forge ahead along psychological lines was limited, though there were infinite possibilities in the way of physiological variations for them to pursue.

Meanwhile the human race, most primitive of all, retained its comparative simplicity of bodily structure and function, because it was not solely concerned with mere experimentation and adaptation along physical lines, but, once it had built for itself a suitable vehicle, it abandoned that line of evolution *as a distinct line of evolution for its own sake,* in order to bring into outer expression the far more important *inner* psychological, intellectual, and indeed spiritual factors locked within it.*

Remember that evolution proceeds in all cases by means of two agencies: the inner drive or urge in the evolving entity, acting upon surrounding circumstances or environment, which react against the creature expressing that inner drive or urge. The resultant of these two forces or conditions is the animal, or the human being, or any other entity, at any moment of its developmental course. Thus we mean by evolution the unfolding or rolling out of potentialities or potencies or latent capacities inwrapt in the creature itself; and when the environment permits an outflowing or unwrapping of these latent powers, they immediately flow

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*Let me point out here that this same principle works out in the sphere of human life itself. Wherever you see a too great specialization in any branch of science, for instance, you may know that there forward progress is likely to be in abeyance; because running off exclusively into bypaths of specialized study, cuts one off from the main course of human thinking, that broad stream which has been fed through the ages by all profound thinkers adding their contribution to the forward evolution of human thought.

forth into manifestation, or assert themselves, the resultant being in the case of the beast kingdom a change in some one or more respects in the physical vehicle or body; and in the case of the human kingdom in its present stage, a fuller expression of the inner psychological entity.

Now I have stated that there was no uniserial or end-on evolution of the human stock through and across the great classes of animate entities beneath the human; and it is the various gaps or lacunae between the stocks that have formed the main stumbling-blocks for the transformists in their attempt to prove the evolutionary or transformist hypotheses evolved by the various scientific theorists. Every attempt to bridge these gaps by an appeal to Nature's record has broken down of necessity. But fixed ideas die hard; there has been much work, much of it good and brilliant work, in an endeavor to evolve some new hypothesis or speculation, some further explanation, by which the accepted transformist theories of evolution could be proved.

Consequently there has arisen a more modern evolutionary school, which we may call the Saltatory School, the School of evolution by jumps or leaps, so to say, based on the idea that evolution frequently pursues a leaping or jumping course, if we may so express the idea. But no satisfactory explanation has been given of the fact that such sudden and large variations do occur, nor why these leaps or saltatory variations take place. Prominent among the proponents of this particular so-called 'mutationist' school, we may mention

two names, that of the Netherlander Hugo de Vries, and that of William Bateson, a British scientist.

These gentlemen have found that certain plants and certain animals do show in their biological history wide steps from one stage or variation to another stage or variation, and that these stages in variation are so large and the resultant entity is so specifically different from the step preceding it, that they have called such wide steps mutations. Mutation of course means change, in the sense of variation from the preceding condition; and such mutations do in fact exist.

These so-called mutations are caused by the fact that the evolving entity had accumulated — if we may use such an imperfect expression — a habit or set of habits which remain latent for periods more or less indefinite. Such habits or groups of habits we may call recessive or sleeping or latent; but there they are, and when the environmental circumstances are appropriate for their manifestation, as in all other cases of suddenly appearing variations, out they come, and to all appearances a new species has started its evolutionary course.

Obviously then, the law of evolution by slow and graduating stages, one into the other, has not been in any sense violated, for these habits or groups of habits, or variations, were accumulated and built into the biologic architecture and history of the cell or cellular organism which produced them. Environment provides the path for their manifestation when the barriers hindering their appearance vanish, or are broken down, or for some other reason no longer oppose the out-

flowing of the inner forces or force hitherto asleep or latent or recessive.

The explanation of this fact of wide and sudden variations lies in the nature of the cellular structure in the body of each such evolving entity. I do not see how evolution can ever be understood if we limit our study of it solely to the variable and changing body; because it should be obvious to any reflective mind that the body can express only that which an inner and spiritual power has ordained in its endeavors at self-expression through the body, when an appropriate environment allows such self-expression to show itself.

We have already pointed out that to the Theosophist the inner evolution of man, that is to say, the evolution of the inner powers of his being, is by far more important and interesting, because causal, than is the evolution or change in specialization of his physical frame; but we are limiting our thesis in the present series of lectures more or less to the evolution of the vehicle or body through which man, or through which the entities below him, respectively in their different cases, evolve and work or express each its own inner drive.

An interesting scientific discovery of recent years has taken the form of what is now called Mendelism. Gregor Mendel was an Austrian peasant-boy with a love of nature, which he studied because he loved the study. He was later a monk, and at his death was abbot of Brünn; outside of his ecclesiastical occupations he evidently had much time, as a lover of nature, to study the things which interested him. And so in

the garden of his monastery, this monkish investigator of some of the mysteries of nature experimented with the common garden pea. He made many experiments, extending over a number of years. He collated the results of his studies, and he found several very interesting things. He found, for instance, that heredity expresses itself along mathematical lines, that is to say, in quantitative relations, which is likewise what the Theosophist says as regards this question of heredity.

Collecting the results of his studies, he printed them in 1865; and they were promptly forgotten, if indeed they ever received any attention at the time. The world then was ringing with quarrels over Darwinism and the Natural Selection theory, and the Survival of the Fittest theory. And the studies and explanations of this obscure Austrian investigator were completely lost sight of.

But in the year 1900, eighteen years after the death of Mendel, the results of the studies which he had incorporated in formal shape and had printed in 1865 were rediscovered more or less independently by three great botanists, the Netherlander de Vries, whom I have already mentioned, by E. Correns, and by G. Tschermak. These three botanists found that Mendel's work, as set forth in his printed thesis, aided them greatly in explaining their own mutationist hypothesis, that is, the hypothesis of saltatory evolution or evolution by leaps or jumps.

What then is Mendelism? Mendelism is the theory that there exist in the reproductive or germ-plasm of plants and of animals certain powers seeking expres-

sion, and that they manifest in mathematical or quantitative relationships.

For instance, we will take the illustration that Mendel himself, I believe, chose. In his experiments with peas he crossed a dwarf pea with a tall pea, and in the succeeding generation he found that they were all talls. He therefore said that the tall is 'dominant,' and that the dwarf strain is 'recessive' — *sleeping,* or *dormant,* or *latent,* the Theosophist would say. He allowed this second generation, all talls, to fertilize itself in the natural course, and their offspring were found to segregate themselves or to sift themselves out as follows: one quarter were dwarfs, three quarters were talls.

He found that the quarter of dwarfs invariably produced dwarfs if they were not crossed, thus showing that it was a pure strain or stock; but of the three quarters consisting of talls, one quarter invariably produced talls, thus showing that that quarter of talls was likewise a pure stock; while the other two fourths, or one half of the talls, brought forth offspring precisely as their parents had done; that is to say, they produced in the next generation one quarter true-strain dwarfs, one quarter true-strain talls, and two fourths of mixed dwarf and tall strain.

How do these quantitative relations come about? What is it that produces these mathematical relationships in the reproductive or germ-plasm? Environment of course has something to do with it, because environment provides the stimulus, as it were, enabling the inner urge or potency to express itself; in other words,

environment is the field within which and upon which these natural forces, inherent in the stock, work. But we must look into the inner nature of the individual itself under investigation if we wish to trace these secrets of Nature to their origin and to explain them. The solution of this problem lies in the cell, that is to say, in the inherent, or indwelling, or innate, or inclosed powers of the cell itself.

All matter — both the living and the so-called inanimate — is ultimately builded up from atoms, each one of which possesses vast and incomputable capacities for change, which is evolution towards growth or retrogression, as the case may be, but in any case evolution, that is, the bringing out or evolving or unwrapping or unrolling of that which is lying in it seeking expression.

In many cases this evolving, this bringing out, of the inner tendency, potency, or capacity, is inhibited by various circumstances; and in such case, the atom or the cell, as the case may be — for the cell copies the general scheme of the atoms of which it is composed — falls under what in Theosophy is called the Law of Retardation, and must abide its time until its own cycle for growth comes. But if its cycle be one under the action of the Law of Acceleration, as we call it, it begins to grow in progressive development, always bringing out that which is within itself, that which is lying latent within it, as potency or tendency.*

*An interesting and indeed fascinating observation may be ventured here to the effect that these mathematical relationships so prominent in biological story and so effective in the working of the evolutionary scheme, are more or less automatic as con-

Evolution therefore actually is self-expression. It does not proceed in a haphazard manner, but according to the inner urge or drive of the more or less conscious invisible entity or soul, which is the factor seeking to express itself through its vehicle or vehicles. Its doing this is what we call evolution. It is in the very small that we should seek for the unriddling of this riddle of evolution, for the solving of the problem of what it is that causes growth, and particularly expansive or forward or progressive growth.

Man being a child of the universe, being a part of that universe itself, he has in him everything, every force, every potency, every power, every capacity, that the Macrocosm or Great Universe has. He, as an entity, in his turn is a Macrocosm to the cells which compose his body, for they are a part of him, and, therefore, have everything in them which he has in him, albeit it may be latent or dormant or sleeping, and not yet kinetic.

The powers, as I say, are there, and when the environment be fit and appropriate, when the barriers

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cerns the kingdoms of nature below man. But beginning with man and appertaining to the kingdoms above him, as for instance to the three kingdoms of the Dhyâni-Chohans, as they are called in Theosophy, these mathematical relationships, while just as strict in their action upon evolving entities, nevertheless are then expanding into fields of evolving consciousness, or rather evolving consciousnesses, and this brings about in the long courses of evolutionary history constant increments of individuality as appertaining to units or individuals. Individuality thus always tends to modify the details of a general law; but this does not mean that the general law is not operative.

have been worn down through evolution, or rather cleared away by the working of the inner drive, then these potencies, these capacities, manifest this inner urge or drive for self-expression; and behold! something new is produced — a new variety, a new species; it may be destined indeed to develop a new stock.

It all depends upon two factors in the biologic equation: an inner urge expressing the inherent potency or capacity with a free path and uninhibited by barriers; and, second, an environment fit and appropriate as a field for their expression.

This is what I have meant when I have said that man is the repertory of all the animate entities on earth. Moreover he has everything in him that he himself can ever in future be; and these potencies await the time and the place for their coming forth into manifestation. The process is 'evolution' or self-expression. I meant further when saying that man gave birth to all the animate creatures below him, that in the beginning, the roots or seeds of all the animate creatures below him existed in him as latent or dormant or sleeping things.

Please remember that we now are speaking of man's physical body. We do not mean that these animate creatures below him formerly existed in his soul or in his spiritual nature; but that they were sleeping elemental entities in his nature and derived from him as their parent. They took the manifold and many forms and shapes they had and have, because these most fitly manifest the particular kind of energy expressing itself in each and every case.

13. Man the Repertory of All Types

"MAN IS HIS own history." This is a very profound epigram which covers the entire outline of the evolutionary progress of the human soul. All things reside in man. He is the epitome of all that is — the microcosm or replica, the duplicate, the copy, of the Macrocosm; therefore he has everything in him that the Macrocosm has; not necessarily fully developed — on the contrary, many of the higher forces, qualities, potentialities, as yet but very feebly show through the veils which enshroud his higher nature, but nevertheless he possesses all the elements that his Great Mother — the Universe — has, either latent or sleeping, so to say, or expressing themselves through his self-conscious side.

Man also holds within himself the history of all inferior types. Man is, and has been, and will be, the foremost of the hierarchy of evolving entities on our earth, the foremost in evolutionary development; and as the leading stock, he therefore is the repertory, the store-house, the magazine, of all future types, even as he has been of all past types. He throws off these types as he evolves through the ages; each of these types becomes in its turn a new stock, and follows

thereafter its own individual line of evolutionary development.

It was in this manner that were originated all the stocks below man. Every inferior or subordinate stock was originated as the vital off-throwings of man, these off-throwings being composed of cells of man's body. And each one of these cellular organisms, succeeding its derivation or independent origin from the human stock, immediately began to produce its own stock from the forces inherent and latent in the cells which composed it.

It was these buds, these cellular off-throwings of man from his body, which originated all the stocks below the Mammalia *in the preceding Globe-Round* or great Tidal Wave of Life, hundreds of millions of years ago. Those particular classes were the Birds, the Reptiles, the Amphibians, the Fishes, and the vast range of biologic life included under the general term of the Invertebrates.

The mammalia, however, were the off-throwings from man in the present great Globe-Round or great Tidal Wave of Life, and had their origin from prehuman man in the very early part of the Mesozoic Age, and very probably in the last part of the preceding or Palaeozoic Age of Geology, when man himself had become a physical from a semi-astral being.*

I do not mean by what I have said above that these types were or are the bodies in which man once lived, or will live. Not at all. The whole matter of the

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*See footnote on page 309.

vital off-throwings is a fascinating and mysterious one, mysterious simply because not yet fully understood. The following observations may perhaps give the key to the idea.

The human body is an exceedingly fascinating subject of study in any consideration of the manner in which evolution works. Evolution, indeed, deals with it but in a secondary or effectual manner, not in a primary or causal manner. I mean by this, that the human body merely reflects the various changes in progressive development which actually proceed on interior or causal planes. I have already pointed out that evolution, as we use the word, means the unfolding, the unwrapping, of that which previously had been infolded and inwrapped as potencies in the structure of the cells of which the body is composed; for in the infinitesimal lie the seeds of the world we see about us. The human body on an average is estimated to contain some twenty-six trillion cells! — an unfigurable number. The cell, we are told, is formed of protoplasm; this protoplasm consists mainly of four chemical elements, carbon, nitrogen, oxygen, and hydrogen, occasionally with some trace of other chemical elements. We are also told that protoplasmic substance contains two general parts; a central part called the nucleus, and a surrounding plasm or protoplasm, which is commonly called the cytoplasm, which latter is the larger part of the substance of the cell itself.

Yet all this description does not tell us what the cell really is. Each cell is, in fact, a living entity, a physiological organ, with inherent capacities, inherent

tendencies, each such capacity or tendency possessing its own inherent urge or drive towards self-expression. According to our teachings, this inherent urge or drive originates in the invisible entity from which it proceeds; because, unless there were some cohering power, some force of coherence working in the structure of the individual, no such thing as even a simple cell could exist; it could not even come into physical being or manifestation. It is held together and controlled by the invisible entity behind it, which expresses itself through the finer or more ethereal part of these tiny cells, because that finer or more ethereal part is the nearest in ethereality to its own nature.

A cell is, in fact, an infinitesimal focus of cosmic forces, a channel through which they pour forth into manifestation on our physical plane, each, as said before, possessing an incomputable capacity for change and growth, being in very fact a dynamo of forces. The incarnating entity is a bundle of such forces, and, as said, it expresses itself through the finer or more ethereal part of the tiny cells, because that finer or more ethereal part is the nearest in ethereality to the nature of the force or forces that are seeking expression.

These forces working in the ethereal realms of matter are extremely subtil; their rates of vibration are highly individual. Yet with all their subtilty they have tremendous power. Could such a force be focused directly, let us say, upon the outer physical cell, such a cell would vanish, because it would be disintegrated; the atoms of which the cell is composed could not

stand the strain of the forces pouring through them, and the structure of the cell would be wrecked: the component parts of the atoms would be wrenched apart. But it is very rare indeed that a force is so focused in animate entities, although it does happen constantly and continuously in the cosmic labor. The operation of these ethereal substances which we know as forces, is as a rule more generally diffused.

Now every cell in man's body is man's own child. Every one of the twenty-six trillions of cells sprang from him, from his inner self. The dominating entity, the inner man, gave birth to them all. As common parent of them all and working through them, he is their Over-soul. He in a very true sense is their god, even as the divine beings who gave us spiritual birth we call our gods; and just as these divine beings in their turn sprang as spiritual atomic corpuscles from entities still more sublime, and so forth, still higher: an endless hierarchy of ascending and descending intelligences and lives.

It can be seen from the above that in a cell, or in the atoms of which a cell is composed, there are uncounted and actually almost innumerable possibilities of development, locked up or latent potentialities, all seeking expression, and many having to bide their time for ages before that opportunity comes, if their opportunities ever do come; and if and when these potentialities find in their environment an open door for expression, out they go, a rushing tide of life.

Therefore, the cells that man once threw off, even as he is now throwing them off, resulted in the lower

creatures of which I have spoken, who are not at all degenerate men, as might be supposed, but actually lower types, beginning their evolutionary course towards higher things, springing from man, the repertory or magazine of all types beneath him.

Let us remember that the physical encasements of early men were far more loosely coherent than they are now, and of a much more subtil and ethereal matter than that of man's present physical body. This was because the psychical and physical dominance of the human kind over the cells composing those primitive human bodies was far less strong and less developed than now it is. In consequence of this relatively weak control over the physical cells, each one of such cells was more free than now it is to pursue its own particular individual drive or urge.

Hence, when any one of the cells forming part of such early human bodies freed itself from the psychical and physical control that then existed, it was enabled to follow, and instinctively did follow, the path of self-expression; but in our days when the psychical and physical dominance of the human incarnated entity over the human cells composing the human body is so strong, and because of the fact that the cells have largely lost their power of individual self-expression, through the biologic habit of subjecting to that overlordship of the human entity, such an individualized career of a cell in self-development is a virtual impossibility. But in those early days of the primordial humanity, the case was very different. A cell or an aggregate of cells could separate itself from the then

human frame — if 'human' is the proper word to use in such connexion — and begin an evolutionary career of its own. This in large degree explains the origin of the various stocks now inferior to the human.

Man has been the storehouse (and still is such a storehouse or magazine) from which these other stocks originated, as I have said, and towards which, moreover, they are ultimately straining — towards which they are ultimately evolving. These cells which compose the body of man, had they not been held in the grip of the forces flowing from the inner dominating entity, man himself, for so long a time that their own individual lives, as it were, have been overpowered and bent in his direction and can now follow almost no other path than his: had they not been so dominated, I say, they would, by the amputation of a limb for instance, immediately begin to proliferate along their own tendency-line, to build up bodies of their own kind, each one following out that particular line of life-force, or progressive development, which each such cell would contain in its cellular structure as a dominant, thus establishing a new ancestral or genealogical tree.

What is the reason that today a free human cell or an amputated human limb or a bit of the human body cut off from the trunk does not grow into another human being, or, perhaps, into some inferior entity, as was the case in the zoological past? This is the reason: in all the vertebrate animals, that is to say, the higher animate beings in the evolutionary scale, the psychic and material grip of the dominant entity

over the cells of its body is so strong that these cells obey the more powerful drive communicated to them from the dominant entity working through them, and hence can follow only that dominating drive which they do through the force of the acquired biological habit. They have largely lost the power of self-expression and self-progress along what would be under different circumstances their own individual pathways. But that liberty of action and that free field for self-expression were theirs in greater or less degree in past times.

In some of the lower invertebrate creatures there exists today a faculty of self-repair which the scientist calls the reproduction of lost parts, that is to say, that such a creature in our days, low in the scale of animate beings, if it lose a limb, a tail for instance, will reproduce for itself a new limb or tail. A certain kind of worm, well known to zoologists, will, if divided into two, become two complete worms. Here is a case where the faculty of dominance, or the dominant as Mendel called it, is still weak in its control over the entire cellular structure of the body through which it works, and each cell composing that body, if left to itself — even more so if you could take such a cell out of the body and give it appropriate food and environment — would have an exceedingly good chance of starting upon a line of evolution of its own, following its own inherent tendency or potency or urge, and thus bringing forth some new stock. But as this case rarely now or perhaps never arises, the cells are impelled to follow the reproductive tendency of the limb only to which they belong.

This method of the regeneration of lost parts, or of reproduction, prevailed in a past time in the human frame, as much as and as fully as in the cases of the lower creatures to which I here allude. And it was this general method of reproduction which gave rise to the various animate stocks, the highly specialized descendants of which we find on earth today (except those stocks which have become extinct) and which are the various groups of the beasts.

But this cannot happen in our period of evolution, as can be shown more fully by a study of Weismann's remarkable theory. The cellular structure, the inherent tendencies or potencies of the cells belonging to the bodies of the higher creatures, have the possibility of following only that particular line of unfoldment or of growth, which the dominant entity of which these cells form the body, allows them to have.

It is a case where the individual *swabhâva,* as the Theosophist calls it, the individual capacities or latent tendencies of the cell, are submerged by the overlording or dominance, so to say, of the invisible entity which works through those cells. The inherent potencies of those cells have become 'recessive,' to use Mendel's term; the consequence being that the cell's own individual potencies can express themselves, if at all, only when the power of the dominating entity is withdrawn, perhaps not even then if the submergence of the cell or native cellular potencies has been too great; in this last case they die.

Man still remains the storehouse or magazine of an incomputable number of vital or zoologic tendencies

latent in the cells of his body; and though the old method of their manifestation has ceased, new and different methods will supersede the old. The urge of life working through the tiny lives of man's physical body, will none the less inevitably find new methods of expression, and these latent or sleeping tendencies will in far distant future ages find appropriate outlets, thus, perhaps, giving origin to new stocks in that far-distant future.

It should not be forgotten, however, that such origination of new stocks will grow fewer and fewer as time goes on towards the end of our Globe-Round, due to the growing dominance and ever larger and wider exercise of the innate powers of the evolving human being, swamping and submerging all tendencies of a minor kind and of inferior biologic energy.

This fact that a cell or aggregate of cells is subjected to the dominance of an Over-soul, the incarnating and incarnated entity, is simply the manifestation of what our Theosophical teachings call the action of the law of Acceleration and Retardation, one of the subordinate lines, so to speak, of the general operation of what we call Karman or the Law of Consequences. This law of Acceleration or Retardation simply means this: when a thing occupies a place of authority in the evolutionary scale, or a position of dominant power over other and inferior or subordinate entities, through the operation of its own inherent forces, or indeed through the inertia of its physical being, no other entity under its sway can find a free field for self-expression while so placed; and every entity so constituted:

or, what comes to the same thing, every other entity of which that dominating entity is composed: must obey the dominating urge, the dominating impulses of that over-lord. The dominant entity pursues an accelerated course; while the inferior entities under its sway or composing its various parts are retarded in their individual courses of development, which they otherwise freely would follow.

I will give you a poor but perhaps graphic illustration of my meaning. When a railway train rushes along the rails, what does it carry with it? All the living entities in the various coaches, each one on its own errand and business ventures bent, it is true, yet all, for the time being, helpless in the grip of the power to which they have subjected themselves. In somewhat similar manner the cells of the human body are subjected to the law of Retardation in evolutionary development, so far as they are individually concerned, until the time comes when they shall have reached, through obedience to the dominating power, which in our present instance is man, self-consciousness of their own, and thereafter, in their turn, grow into nobler learners and more individualized evolvers, as we humans ourselves now are.

Evolution is not merely an automatic response to external stimuli, but it is first of all action from within, unceasing attempts in self-expression; and each response to the external stimuli, which the natural environment provides, gives opportunity for a larger and fuller measure of self-expression than before existed.

But I feel that I must add, that while evolution is

usually used, and correctly used, of progressive advancement from the less to the more perfect, yet the term evolution likewise includes all orders of manifestation which bring out merely that which is inwrapt; consequently, there is in one sense an order of inverse evolution which the word itself fully covers. This may seem a little irrelevant, perhaps, at the present moment, but it actually is important as being an explanation of why certain animate stocks persist in life, from generation to generation, without showing any obvious or indeed actual advancement of type. This is another aspect of the law of Acceleration and Retardation. An entity in accelerated evolution proceeds steadily, serially, step by step, from the less to the more perfect; but a stock under the action of the law of Retardation, may remain for ages more or less stationary. This is a very interesting and indeed important side-issue of our subject.

The law of Retardation operates on a stock or on any individual animate entity, when a more evolved stock appears on the scene. It is somewhat like the submerging of minor men in the individuality of a greater man — an interesting psychological phenomenon which all of us must have noticed in the affairs of ordinary life. The law of Acceleration, on the other hand, operates in the cases where an evolving stock finds the field free and without barriers or hindrances to the full expansion of its innate potencies, faculties, powers.

The animate entities below man have descended to our own time, or in some cases their dwarfed repre-

sentatives* have so descended, though evolving far less fast than the human stock has done because they are under the operation of this law of Retardation.

The progenitors of the lowest animate beings sprang from man in the preceding Great Tidal Wave of Life or Globe-Round, as I have already explained. The mammalians, however came from the human stock in this present Globe-Round, during the latter part of the Second great Root-Race and the early part of the Third Root-Race. Man is of course himself a mammal, and therefore these other stocks necessarily partook of the nature of their originating strain.

All these various stocks of animate mammalian entities on earth, all following their own especial lines of development, along their own genealogical trees, were the offsprings of the primitive human stock in that immensely distant past — a time when what we call the 'mindless races' lived, before godlike entities descended from the spiritual spheres in order to enlighten the waiting human material organisms with their divine rays.

They were originally buds or offspring from that mindless and imperfect human stock; but, as the human spiritual entity was not yet then dominant in the human bodies of that time, and could not fully hold in abeyance

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*There are, of course, certain groups of animals which now live no more but which once did live on this earth: for instance, the gigantic reptiles of the Mesozoic or Secondary Age of Geology; we may say, however, that they are represented today by their dwarfed and pygmy descendants still among us, such as the lizards, probably the serpents, the frogs, and so forth.

the vital potencies of the cells which composed those buds which sprang from the bodies of early man, therefore each one of such bud-bodies or aggregates of buds immediately began to grow, following its own evolutionary tendencies or inherent urges, each producing only that which it could produce, that which was inherent in itself; evolving, unrolling, unwrapping, its own inherent character or nature. This was the origin of the mammalia.

The apes and the monkeys sprang from man likewise but in another manner. The monkeys were born from the mindless human race, which, having no self-conscious mind, having but instinct and a vague and diffused physical consciousness, in many cases allied themselves with animal beings who also originally had sprung from the human stock, though not manifesting the dominant evolutionary tendencies for growth into humanity. The results of this shameful union were the lower simian stocks, the monkeys, and this occurred during the Mesozoic or Secondary Age of geology, probably during the Jurassic period.

Please understand that this occurred by and under the action of races of early man which realized not what they were doing. They were as irresponsible as little children and had no moral realization of what we now regard, and justly regard, as shameful to the last degree.

At a later date, towards the end of the great Fourth Stock-Race, during the Miocene Period of geology, when the Fourth Race had already far passed its climax of evolution and was represented by many degenerate

remnants* — barbarians, savages, like the Andaman Islanders, and the Negritos and the Bushmen, and the Veddahs of Ceylon today, descendants, degenerate children, of once great and noble ancestors — some of these degenerate Atlanteans or Fourth Race men repeated 'the sin of the mindless' with the lower simian stock then existing; and this second and still more shameful union originated the anthropoid apes. Hence it is small wonder that they resemble man, their half-parent, in so many particulars, even though that human half-parent was at the time but a degenerate savage.

Yet, as pointed out elsewhere, though there is a resemblance between man and the apes and monkeys, these two latter are more widely and divergently 'evolved' along their own line than man is along his. By now, however, their progressive evolution has very largely ceased, because the door into the human kingdom, towards which all the great stocks below man have ever tended, was closed some eight or nine million years ago, more or less, whilst man is steadily progressing and will progress as long as this planet bears its groups of living entities.

I might add also that when I say that the lower groups have almost ceased to follow the path of progressive evolution tending towards man as a goal, I, first,

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*Yet even during the late Miocene Period, and in fact reaching into the Pleistocene, the great Fourth Root-Race was represented still by brilliant local civilizations in various parts of the earth. But these were sporadic afterglows, so to say; for the culmination of Fourth Race evolution had occurred long before — in the early Miocene.

do not mean a transformation of body of beast into man; nor, on the other hand, do I mean that they are standing perfectly still in an evolutional sense; but only that their rising along the Ladder of Life has ceased until the next great Globe-Round or great Tidal Wave of Life, in the sense that I have before hinted at.

Man's destiny, on the other hand, is to draw steadily and progressively, and as time passes ever more rapidly, away from the lower kingdoms; the destiny of these latter is to die out as time passes, to reappear in proper place and at proper time in the next Tidal Wave or Globe-Round.

14. Cycles of Manifestation

ONE of the most momentous questions that every thinking man asks himself is this: Whence do we come into this physical world? And another question of intellectual moment and heart-moment to each one of us is this: Who are we, and what are we? Then comes a third question to the mind as it ponders over the other two: Whither do we go at death? We come here on the stage of life as it is on this planet Earth; we make a few gestures and movements, suffer somewhat, rejoice somewhat, are ill or well as the case may be; and then we pass off that stage, which apparently knows us no longer, apparently nothing but a memory of us remains, and perhaps not even that. But in a universe governed by law and order and progress, as the saying runs, the sufferings that we have endured, the joys that we have had, the ideals fulfilled and unfulfilled, arose somewhere, that is, must have had their origin somewhere. Where is that beginning? And they have a partial fruition perhaps here in earth-life; and then we leave the stage of earth-life. Is all then ended? How can that be?

All that we were, as well as our sufferings and our joys and our ideals, manifest or unmanifest, were all forces playing through us. They came somewhence out

of the dark, out of the invisible, and played through us a little while. What then has become of them? They played their part on the stage of life, and that very playing was a cause of other effects and effectual relations which in their turn are forces acting as causes of future effects; and these must have their appropriate stage or stages of action somewhere, somewhen.

It is these same questions, *mutatis mutandis,* that occur to the thinking mind when it reflects upon the nature, origin, and destiny of the worlds which bestrew the spaces of infinitude. Whence came they? What are they? What is their destiny? These questions are at the background of the minds of all thinkers, of all scientists, of all researchers, and of all lookers into the mysteries of the cosmos or universe surrounding us. They are questions which have answers. The mere fact that these things are, shows that there is an answer to be had somewhere to the questions concerning them.

What is the method by which worlds, and we men and other beings, their children, evolve? What is the method by which we come from the invisible into the visible, out of the darkness, as it is to us, into the light as it seems to us? — albeit to the spirit within us material existence is death, and existence in its own realms of spirit is life. This life to it is death and darkness and the tomb; while what we call the darkness of the inner worlds is the supernal light of its own realm to the spirit in us.

The method by which these entities, worlds and men and all the rest, seek expression is a cyclical method, that is to say, a procedure in and through

cyclical progress; and that method works somewhat as follows, as the great seers of the human race have put it on record for us — seers who were and who are the most fully evolved men that the globe has yet produced, and who have recorded their experiences and have handed them down to us as the guide of our life.

Beginning, each entity, each spirit-soul, each Monad, as we say — for there is a Monad at the heart of every individual entity — as an un-self-conscious god-spark, it seeks self-expression and the building up of appropriate vehicles through progress, until finally such method produces a vehicle which can express the spiritual energies and forces of the Monad within, more or less fully.

When this point of progress has been reached, man then from an un-self-conscious god-spark has become a self-conscious god, a self-conscious spirit, because he self-consciously manifests the sublime powers and faculties of the Monad within, and he likewise lives in appropriate realms of existence where he builds for himself vehicles capable of expressing somewhat of the sublime inner faculties.

So it is with all the hosts of lives, because the entire universe is composite of these hosts, each one of which holds its character and its individuality and holds its own particular origin, this last in the spiritual world it is true, yet each following its own particular pathway of progress.

All come from the Central Fire. Yet from the moment of their issuance therefrom each such Spark follows its own especial line. Why? Because it is a

magazine or treasury of sleeping faculties particular to itself; in other words, because it is ensouled by its own characteristic force, its own individuality, what we call its Swabhâva, to use the Sanskrit term. This amounts to saying that each such god-spark follows a path of self-development, of self-evolution, eventuating in self-directed evolution, when a vehicle capable of expressing self-consciousness has finally been builded to inshrine the god-spark working through it.

So again is it with the worlds, the universes. They issue forth into physical manifestation from the bosom of great Mother Nature as nebulae which are composed of most ethereal matter, matter so quasi-spiritual that we cannot see it as it is either with our physical eyes or indeed with our physical instruments as aid to our vision. There are, at the present time, uncounted hosts of such spiritual universes, not yet visible to our physical eyes, because our physical organs have not developed the subtilty of vision enabling us to see things so much more subtil and fine and spiritual than the gross physical matter that our eyes may take in and that our brain-organ may understand.

In time each such world as it passes on its downward and cyclical way into the matter-worlds, seeking expression and therefore knowledge on and of these lower planes and in these lower spheres, undergoes concretion or materialization of its substance, partly by the gathering into itself of inferior and smaller lives which help to build it up, even as man gathers into his body these inferior and smaller lives which help to make that body; and partly by the outflowing from

its own core of subordinate lives. Each such world thus takes a form and a quality and a substance which is a mass of atoms expressing the inner forces of itself. It thus manifests a spiritual or energic side, and a material or vegetative or body-side.

This course of progression of a Monadic Ray (or of a world) through the spheres, from higher to lower planes, is naught else but a succession of states, spiritual, ethereal, astral, physical, which follow each other continuously, each being a continuation on a lower plane in the descent from a preceding higher state; it is like a flow of water. Thus downwards, from its spiritual origin in any one life-cycle, passing cyclically through various planes, it continues that flow of successions of states, as it progresses forwards, until it reaches the lowest point of matter attainable in that life-cycle, and then it begins its ascent on its return to more ethereal realms, and then to those realms which our majestic philosophy says are its original source — spirituality.

At the end of its period of existence on any one plane — our own physical plane for example, which is its most material sphere, and therefore its turning-point before it reascends — our universe, any universe, passes into the invisible realms when its life-cycle is run in these realms of matter; even as man passes into the invisible realms when his life-cycle is run on this earth. That particular life-cycle is then ended. It has attained once again its primordial point of departure, but now it is greater, grander, because more evolved. And with it into invisibility have gone all the various

organs or spheres or houses of life which composed the universe, each one with its manifold assortment of lives, which are incomputable in number, for there are hosts upon hosts, hierarchies upon hierarchies of them.

After a long, long period of universal repose, a definite time-period called a *pralaya,** our universe follows a new cycle down into newer substances and matters acting according to a preceding cause, which we may call an evolutionary seed, the fruitage of its former self. The vast aggregate of life-forces which again awaken into life, again inform a nebula, which will be then ready waiting for it, and which nebula will be the first manifestation of the stirrings of its own inner life-force. Then, passing through various nebular stages of evolution, it will in time settle down anew into stellar or solar and planetary bodies, each one of such bodies, solar or planetary, bringing forth anew what is within itself, its intrinsic and inherent and latent life-forces, expressing itself on this plane, which is a somewhat higher one than the plane on which our universe in its preceding period of manvantara had manifested itself on and in.

Yes, these worlds must have their period of repose,

*The periods of evolutional activity are called in Theosophy *Manvantaras*, a Sanskrit term which means periods of manifestation when the universe is not 'asleep.' In the periods of rest or of 'sleep' it reposes. These latter periods we call *Pralayas*, another Sanskrit word, meaning 'dissolution.' Yet if we were to analyse these periods of rest we should find that they are not a mere condition of 'nothingness' but are made up of condition after condition, through a complete cycle which closes only as the new cycle of activity begins.

even as man must have his, when his cycle is run. When that period comes they rest in the invisible realms with all their freightage or burden of lives, and after that rest return and repeat the cycle of evolutionary manifestation, but at each recurrence on higher planes than the preceding.

Nature repeats herself everywhere. She follows grooves of action that have already been made; she follows the line of least resistance in all cases and everywhere. And it is upon this repetitive action of our great mother, Universal Nature, that is founded the Theosophical doctrine of the law of cycles, which is the enacting of things that have been before, although each such repetition, as said, is at each new manifestation on a higher plane and with a larger sweep or field of action. Back of all the seeming of Nature, behind all the cyclical phenomenal appearances which our senses interpret to us as best they may, lies the Universal Life in its infinitude of modes of action and expression.

Let us now take another step in advance, in the outlining of our doctrine. What is it that causes this materialization or concretion or thickening of the original substance of a world, a universe? The answer is to be found in the Theosophical teaching that spirit and essential substance are fundamentally one; which is virtually what the greatest scientific physicists believe when they declare that matter and force (or energy) are fundamentally one.

Now this seems like a dark saying and a hard one at first sight, but it is the newest dictum of modern

scientific physics, thus re-echoing our age-old philosophy. When we first openly taught this fact of Nature some fifty-five or sixty years ago, it was then listened to with a smile of incredulity by our audiences, or the readers of our books; but now the identity of these two bases of the universe, that is of matter and force, is an accepted scientific fact.

At a certain stage of its movement forwards and downwards of progression or evolution, force passes the frontiers of any particular world-sphere and becomes very ethereal matter, because actually force is ethereal matter, so to say; or, to put it as we prefer to put it, matter is crystallized force.

What do we mean by matter? Matter as we cognise it, is the physical basis of the things which we see around us. But if we try to analyse it, we seem to reach nothing. We do not know what to think. A man may ask himself, "What is matter, after all?" Let him ask the physicist; ask the chemist; ask the philosopher; and the chances are that, nine times out of ten, the latter will tell him, as honest men, "I do not know. All I know is that it is the substantial basis in and on which what we call force works."

But what is force? And the answer is, "Force is that which works on matter, and matter provides the substantial basis for force!" But are we going to cheat ourselves with words? We can so tie ourselves up in intangible abstractions such as these words, Force and Matter, that literally we go mentally nowhere and understand nothing.

Force is merely moving matter, or matter in move-

ment, subtil matter, flowing matter. Force on the ethereal planes, or what we may call forces, are substances: on these ethereal planes they actually are solids, fluids, and if you like to use the word, gaseous matter; but to us in our more gross and material world, we sense them only as forces. Electricity is a case in point. It is material; we know that. Otherwise, indeed, how could it work in, through, and upon substance or matter, if it were entirely different from matter and had in itself nothing of a substantial nature? These forces working in the ethereal realms of matter, are extremely subtil. Their rates of vibration are highly individual.

When an explosion takes place, what happens? A certain portion of matter then is violently converted into gas. Now if we did not know this true explanation of the fact, we should say that the matter had disappeared or vanished into nothingness, and that force had replaced it; that is to say, that matter had become an energy; which indeed is the actual fact; but energy as so used in such ignorance of the true explanation would mean what it meant forty or fifty years ago — that some unknown thing, called force, had suddenly appeared in the explosion to which matter had given birth in an unknown way.

My point is this: Gas is matter; hence when an explosion takes place through the conversion of solid matter into a gaseous, it merely means that matter has become etherealized and energic; it does not mean that matter and force are two utterly separate, distinct things. If we could again explode the gas resulting

from the first explosion and thus turn it into a matter or substance still more ethereal than that gas, the same process would have taken place, and the gas would have been turned, as just said, into a matter or substance still more energic than the preceding, but it would still be matter.

Reverse the idea and consider a condensation of ethereal substance into a more material or concrete substance, into a crystallized form of that substance, which before we called force or energy. That is all there is to it, and this will give you an inkling of the idea which our teaching on the subject and the modern scientific declaration both comprise.

Spirit and substance are fundamentally one. Matter passes into force or energy, or substance passes into spirit, when the material or substantial cycle of either is completed; that is to say, when the cycle of any particular evolving entity, be it globe or anything else, is ended, when its time of dissolution or vanishing again into the invisible world arrives. Matter is thus metamorphosed into force again.

The eminent English physicist, Sir Oliver Lodge, stated in a lecture a number of years ago, that the Universe is composite of something which he called 'substantial,' but which, he said, we cannot as yet understand or grasp the meaning of; yet this 'something' is an old story in our age-old philosophy, and was as familiar to the Sages of the past as it is to those of the present. Theosophists call this something 'substantial' of which modern physics speaks, one of the garments of *Mûlaprakṛiti,* that garment being called

the *Âkâśa* — a Sanskrit term meaning 'luminous' or 'brilliant'; and indeed that is exactly what primordial or original physical matter is: that something substantial which Sir Oliver speaks of is the lowest or most material form of our *Âkâśa,* and perhaps we might call it Ether, though, as a matter of fact, there are many cosmic ethers of many grades of tenuity, ranging from the lowest material through all intermediate stages to the most highly spiritual.

Original physical matter, even as we see it in the heavens at night manifesting as the so-called irresolvable nebulae — that is to say, nebulae which cannot be resolved by the telescope into groups or clusters of separate stars — is supposed to be of a gaseous nature; but, as a matter of fact, if we could put some of it into our test-tubes, we should not know it was there, nor would it respond to any physical test or chemical reagent to which we might try to subject it, because it is a matter entirely different from the physical matter that we know; it is original physical matter, as likewise is, by the way, the substance of comets, which will account for the extreme tenuity of the cometary substance and the curious behavior of a comet's tail when it approaches and recedes from the sun, as is well known to astronomers, apparently defying the laws of physical astronomy. This subtil matter we often speak of as mother-substance.

Sir Oliver further said that this substance or 'fluid' is

in a violent state of spinning, and is the seat of an immensity of energy such as has never been imagined. 'Matter' is a tem-

porary appearance or effect in the substance, which can vanish entirely in a burst of energy.

This is really a wonderful remark for a modern scientific physicist! This conversion of force into matter and its re-conversion through a 'burst of energy' into force again, is exactly the thing that happens; and it is the age-old teaching of the Wisdom-Religion.

In another lecture, Lodge previsions one more of our Theosophical commonplaces of philosophy, in his statement that matter disappears into energy or rather force at the consummation of the vast life-cycle of the universe, only to reappear as matter again at the beginning of a new life-cycle of the universe in some future age.

Yet in spite of the fact that Lodge declares the fundamental identity of spirit and matter, in certain statements he still makes a sharp distinction between these two. Is this not because he is still under the influence of the old materialistic teaching that matter and spirit are two fundamentally different and distinct things, entirely separate, and that in some wonderful and mysterious way, which no human ingenuity has yet succeeded in explaining, spirit works upon matter? Yet, how can that be, we ask? It is contrary to all the teaching of modern scientific knowledge, physics or other. Only that which is material in some degree can work upon and affect other material things; and therefore do we say, quite in line with this last teaching of physical science, that force and matter are one fundamentally, as is proved by the one working upon the other.

This teaching of the ultimate identity of force and matter, or spirit and substance, is important because, among other things, it furnishes a perfect encyclopedia of suggestions and leads you to draw conclusions which will enable you to settle in your own mind many of the problems which have vexed occidental scholars for many hundreds of years.

But in talking of these things we find that language is inadequate. We of the Occident have no terms by which to express these utterly new thoughts in our mental world. Therefore the most that we can do, in order to give some idea of our meanings, is to hint at these meanings, convey the idea by graphic symbol, or by analogy, or by suggestion. Therefore do we repeat that matters, substances, are 'crystallized' forces, and, on the other hand, that forces are actually immaterialized matters or substances.

We see matter moved or motivated by force or energy, and when we examine it more particularly with an attention still more profound, we then find that this matter is really matters, and that this force is a mere generalizing term and is really forces. The word Force is an abstraction, a generalizing term, but if we reduce it to the concrete conception which is indeed its real meaning when properly used, as we see it manifested in the Cosmos around us, we find that this abstraction is a mental representation of cosmic forces, just in the same manner that the word 'man' when used as an abstraction, is representative of men, man being used there in the same sense that humanity is.

Now what are these forces? We say that they are

monads which have reached full development for and in our own particular hierarchy, that is, our cosmical system, both inner and outer; and that it is their life-impulses, it is their vitality, which furnish the energies with which the Cosmos manifests: in other words, and more simply put, the forces of the Cosmos that we know are the life-impulses, the will-impulses, of these fully developed monads of our hierarchy. In ancient times they would have been called gods. Modern scientific thinkers call them forces; but the term really matters nothing. At the present moment we are not disputing over terms.

The universe is composed of units, and the heart or core of each one of such units is what we call a Monad. Each one of these Monads then, is a spiritual consciousness-life-center; and as the universe is infinite, and comprises the infinite degrees or stages or steps of which I have spoken, so these stages or steps are formed of the incomputable hosts of the Monads in various degrees of self-expression; or to put it more accurately still, are composed of the vehicles or bodies in which each such Monad manifests itself as in a garment taken from its own life and substance.

The lowest range of such garments that we humans can cognise is the congeries of material entities around us, or the aggregate of these garments of the Monads, manifesting as potential force-substances, potential or sleeping atoms, but not as kinetic or awakened atoms, for these latter are the intermediate nature between the Monad *per se* and these lower garments. Such is force and matter.

We see then, that these two fundamental elements of the Cosmos, because we understand them only in an illusory manner, are obviously illusions *for us*. The forces which play in and through the cosmos, although themselves substantial, seem unsubstantial and immaterial to the lower parts of the cosmos in which they all work. We do not understand them as they are in themselves. As the Germans would say, we do not understand *das Ding an sich.*

Consciousness therefore is Matter; Matter is consciousness; for have we not seen that the Cosmos is composed of nothing but an infinite number of spiritual entities, 'spiritual atoms,' if you like to call them such, self-motivated, self-driven, self-impelled particles of consciousness, as it were?

Locke, the English philosopher and logician of the seventeenth century, gave birth to a thought which is typically Theosophical. He said, in substance, in his *Essay Concerning Human Understanding:* "There exists an immense hierarchy of entities" (he called them spiritual beings — it matters not what we call them for the moment) "running from the Deity to the beast, and from the beast down."

Leibniz, the great German philosopher, taught the same thing, but elaborated it to vastly greater length. But the Theosophist goes much farther and says that this hierarchy of conscious entities, of monads, of spiritual atoms, in almost innumerable grades of progression, from the highest to the lowest, all moving onward and upward, is but one of an infinite number of such hierarchies. He declares also that the Hierarch

of any such hierarchy is a fully developed monad, a fully developed intelligence, having under its control, whether that control be cosmic or atomic, the inferior entities comprised in its hierarchy.

When a vehicle speeds along the road, it carries with it everything of which it is composed. Of necessity, every molecule of it goes with it; every atom of the hosts forming those molecules goes with it; and every proton and electron in their turn forming the hosts of atoms, of necessity likewise go with it. All the component parts of which such a vehicle is composed of necessity follow the path which the speeding vehicle follows, because they compose it. And as it is with the vehicle we have chosen for our metaphor, so is it with the various bodies or 'vehicles' which inshrine and manifest and express the indwelling powers or energies or forces, whether such body or vehicle be a sun or a planet or a comet or a nebula, or a human body, or an animal body, or any other body.

The directing intelligence sitting at the wheel of the vehicle which we have chosen for our figure of speech, is representative of the directing intelligence sitting at the heart or core of each and every manifesting body in the cosmos. This directing intelligence is the Divine Hierarch of the Hierarchy or cosmos, great or small, which it guides and inspirits.

The same law runs throughout the innumerable hierarchies which go to make up the whole universe as a composite entity. Man's body, for instance, is composed of innumerable lives, hierarchies of lives, of various grades; and ruling over these sits man himself

in the temple of his soul, the directing intelligence of all. Man is a composite hierarchy.

These teachings of the true nature of force and matter explain the process by which all hierarchies pass through their evolutionary life-cycles. The spiritual body of the universe in its inception becomes more grossly material as the substances and energies of which it is composed transform themselves into inferior matter. This grossening, coarsening, materializing, of these forces becoming substance and matter, proceeds apace as the universe runs its course down into what become material realms.

When the materialization has reached its ultimate, or to put it more clearly, when such materialization has reached what for any particular universe is its period of gross physical existence, then such coarsening or materialization stops, and this is the turning-point in the evolutionary path of such a universe. When this gross physical nature has thus been acquired through the progressive coarsening of the forces of which the reimbodied entity is composed, there ensues a change in the direction, as it were, that the universe henceforth must follow. Matter begins then to etherealize itself, to re-energize itself, to re-become energy, but very, very slowly of course. It takes ages and ages and aeons upon aeons for this cosmic work to eventuate in evolutionary perfection; but that work goes on all the time, without intermission and without ceasing at any instant.

Therefore, as this etherealization goes on, as this re-etherealizing of the matter of which the universe consists proceeds, that universe re-becomes the forces

of which it was at first composite, but with all the added qualities and characteristics of an evolved cosmic entity; and this takes place furthermore on a higher plane than that which witnessed the evolution of the universe that preceded it.

The passing of matter back into force gradually leads it upward and upward through progressive etherealization and final spiritualization, until finally it rebecomes spirit in those cosmic realms whence it originally set forth on its long evolutionary cyclical journey, but greater in quality and of superior texture in all senses is it when it returns to that primordial source. It is these two procedures that take place during the passage of a world from the invisible into the visible, and then from the visible back into the invisible.

15. The Rationale of Reincarnation

THE philosophical principles, or the laws of Nature, which lie behind the processes leading to the formation and the eventuation of the human species are a copy in miniature of what takes place in the Great Mother — the Universe, the Cosmos; the reason being that this universe in which we live is guided from within and acts outwards; and this guidance is by law, that is, by perfect consistency in action.

Given definite circumstances, certain operations of Nature always follow the same courses; and these being universal laws, they must therefore likewise affect everything in the universe in which they operate, because everything therein is a part of that universe, a part of its composition, a part of its constitution. Hence, since we ourselves are a part of that universe, we have everything in us that the universe contains, either latent or active. We have all capacities and faculties, developed or undeveloped as the case may be, for understanding that universe; and we follow those same laws because being a part of that universe we cannot do otherwise. From this fact, so simple, so easily understood, depends the doctrine of cycles as carried out in the evolutionary

development of the human kingdom — as indeed of all the kingdoms of universal nature.

Let us recapitulate the main points regarding the doctrine of cycles as explained in the previous chapter.

A thing has its beginning, proceeds along its course to its culmination, and then, as the life-forces, as the cosmic forces, as the human forces — or whatever it may be that is at the time subject to this cyclic law — as such forces pass their point of culmination, they begin to recede, they begin to lose the resiliency of their inner parts, the instant response which belongs to childhood and youth; and finally, after a while (be that while short or long as the case may be) there come decrepitude, then decay, then death, then rest; and then a beginning anew, but on a higher plane of the universe than before and towards nobler ends than before.

Why? Because the entity which had gone to its rest and now reappears for a new course of life had learned certain lessons in the former imbodiment, in the former existence, and with this increase of its intellectual and psychic stock, it begins its new evolutionary cycle. When it in its turn is ended, then again comes rest; and after the rest then another life anew; and so forth throughout the eternities, throughout endless duration; but each new life-cycle following each period of rest is always on planes and in spheres superior — from the evolutionary standpoint — to the preceding. Throughout all periods of past time has any entity so done; forwards into the future will it so do endlessly, for there are no ultimates; there are no endings. Thank the Immortals!

What a phantasm of the imagination, what a spectral horror for the thinking organ, to suppose that an end may some day come to the course of life and to opportunities for an evolution still more grand! How can such a thing be?

Why are we here? Whence came we? Whither go we? We have not come out from nothingness, merely in order to make a few futile gestures on the stage of life. Creatures of law and order as we are, imbodying all the vital principles of the cosmos, we have our destiny to fulfil, and we are now fulfilling one part of it. And that destiny continues in endless duration, and in both directions. It never had a beginning and it never will have an end. A beginning and an ending are alike inconceivable in view of the Theosophical principles already enunciated.

Have you ever reflected over the idea of nothingness? Have you ever thought of the meaning of the words 'an utter end'? Have you ever tried to realize the meaning of the notion that something had a definite beginning somewhere, somewhen, coming out of somewhere, without object or aim, and vanishing again into an infinite nothingness — a useless and futile course of life? In other words, something springing out of the past, no one knows how or when, fortuitously, at haphazard, helter-skelter, chance-like? Why, these ideas are mere phantasms, plays of the fancy; nor is there anything real on which they rest; for everywhere whither we look we see law, so called, that is, consistent operations of the universe; and if the universe is a consistent whole, how can something appear in it from

nowhere, run for a while a crazy course, and then vanish into the nothingness whence it came, as the fancy bids it?

It is amazing how thinking men allow their thoughts to be led astray by phantasy and the phantasms of the imagination, the reason being that they have no psychological knowledge of themselves; they have no key to the mysteries of their own inner life; nor of the mysteries of their being, for they have forgotten whence they came; they do not know why we are here; they in consequence do not know whither we go at the great change that men call death. Yet all our common sense, as well as our intuition, tell us that we are here for purposes, obviously so. We came here in response to an operation of Nature. Haphazard, helter-skelter action, I repeat, is a phantasy, an empty dream, a nightmare; it has no existence whatsoever.

The secret of the origin of the making of man lies in the making of the universe, in the making of the worlds. We, children of the universe, intrinsic parts of it, actually inseparable parts of it, must ineluctably follow its course, yet in following the general courses of the universe in which we live, likewise do we follow, each one for himself, his own particular life-cycle.

In man, then, the evolutionary cyclic course is carried on by means of repeated incarnations. When the period of death or rest has been achieved and run through, and rest no more is needed, then we return to this earth in order to take up again our interrupted work, further to develop, further to evolve. This advancing, this unfolding and pouring forth of the ener-

gies of the inner generating life is what we mean by evolution. In similar fashion does everything else evolve in appropriate spheres and during appropriate time-periods.

It is through the lessons which each incarnated entity learns in and on this material earth that evolution actually takes place; and I may add that death itself, which follows a hid process, is actually another school of evolutionary progress by which the soul, passing along its pathway of experience, also learns.

Throughout a single lifetime we do certain acts, using the forces innate in us, and reacting against the stimuli of Nature around us; and thus we lay by seeds of action in our characters which become modified by such use of the powers within us; at any rate these seeds must some time fructify and bring forth their fruit, even as we here today are the fruits of former actions that we did, former acts that we performed, former thoughts that we thought, former aspirations that we followed or did not follow, as the case may be. And either of the two cases is equally important, because our sins of omission are often as serious in their effects upon our character and the lives of others as are our sins of commission, and in either case we are responsible.

Man expresses through his various vehicles, visible or invisible, through his physical vehicle, for instance, his inner forces, thus following the imperative drive of his character. This is evolution, which as we understand it and as a procedure, has two aspects, first, the unfolding or unwrapping of the inner powers in re-

sponse to (second) the multitude of stimuli arising out of the world around him.

It is thus that man learns, ever going step by step higher and higher, until from his present stage of imperfect development, he shall finally reach a state of divinity, each ego becoming a fully self-conscious god, a fully self-expressing god.

But is this the end? Is this the final culmination of his destiny through evolution, after which there is nothing more, a complete stoppage of operation of all forces and powers and faculties, which he unfolds? Absurd phantasy! No, there is no absolute end, no absolute ultimate.

Man is in his essence a spiritual being — what we call a Monad, adopting for purposes of illustration to the modern occidental world the old Pythagorean term meaning a unit, an individual, a consciousness-center, a life-consciousness-center, eternal in its essence, because it belongs to those parts of the universe — the higher worlds of the cosmos — which die not, nor do they pass away. It is what is called in philosophy, pure substance, and is not the composite matter of which our physical universe is builded, but belongs to the more ethereal and the invisible parts of our universe which lie within and behind our physical universe of phenomenal appearances. Yet while these inner and invisible worlds are the spheres of its activity, in its own essence it is far higher than these are, for it belongs to the Divine in the roots or heart of its being.

Now this Monad, this spiritual life-consciousness-center, when the time comes for its reimbodiment after

its rest following its preceding life in the lower spheres, is subject to a coarsening or materializing of its outer vestures as it were: itself remaining always as divinity pure and simple on its own plane, nevertheless it clothes itself in the lower spheres with these vestures of light, as they would seem to our mental and psychical senses. And please note carefully that this statement is not a metaphorical one, but an actuality, for light is substance, although to us it manifests as an energy, merely because it is a substance superior to the matter of our own physical plane.

Thus the real man passes through the intermediate spheres, the spheres, that is to say, intermediate between his physical vestures and the plane of the Monad, by means of a ray emanated from the Monad. This monadic ray is the ego-self, and it is this ego-self which passes down through these intermediate spheres, and in so doing takes upon itself garments or vestures or vehicles appropriate to these intermediate spheres, each to each. These are its intermediate bodies, which, using a generalizing term we may collectively call the 'soul'; until finally the moment comes when that soul, as the aggregate activities of these intermediate spheres, is enabled to influence the forces and matters of our physical world and thus the ray or soul passes into physical incarnation and takes unto itself a physical vehicle or body, much as it took unto itself appropriate vehicles on the intermediate planes through which it passed, each such vehicle or body thus acting as a carrier of the Monadic ray, or ego-soul.

Think about this outline of the activities of the

Monad preceding incarnation, and you will marvel at the suggestiveness of it all. You will see the consistency of the doctrine from beginning to end, and that there are no lapses of thought, nor anything left for you to imagine as necessary to fill awkward gaps. The more you investigate these teachings, the more you will find in them to satisfy you.

It is an obvious truth, is it not, that a purely spiritual being could not live or manifest itself, or express itself, on a plane of physical matter, for its energies are not appropriate to such a sphere. The Monad must have an appropriate vehicle or body in order to manifest itself, and in which it may live and work; in other words, there must be an appropriate temple for the enshrining of our inner god, which the Monad is. This is what is meant in the old teaching, which, in the combination of two mystical sayings, I make to run as follows: 'Know ye not that ye are the temple of Divinity, and that the Divine dwelleth in you?'*

When man, as an ego-soul or Monadic Ray, thus passes into physical incarnation he is born into the physical world as a little child, and beginning his career here in this manner, he runs through his life-courses on earth. What causes these courses which a man follows? What is it that is behind the things that he does and the things that he leaves undone, thereby making for himself a character which culminates in a destiny? What are all these forces in man? What is the drive behind him? Collectively speaking, it is

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**1 Cor.*, iii, 16.

what he has built into himself in preceding lives, and which is now finding its outlet, now finding its fruitage-ground, and it is in this manner that man works out what the Theosophist calls his karman.

A farmer sows seed in a certain field and the seed takes root and grows, and produces its crop. Where? In some other field? No, but where it was sown. In similar fashion do the thoughts and actions that a man has thought and done plant seeds of future activities into himself, into his character through the action of Karman, the law of cause and effect, which more accurately is expressed as the Law of Consequences.

Man likewise is greatly affected by the general karman of the race to which he belongs, and by the general law of consequence appertaining to the universe in which he lives. It is the working out of all these latent potentialities that he has inbuilded into himself that makes his life in any one incarnation. It is the working out of these which directs what a man will call his struggles to betterment and his aspirations to higher things. Then, when his course is run in any one lifetime, he passes to his post-mortem rest; and when this repose in its turn is ended then he returns to this sphere in a new cycle of activity, yet in each new incarnation he gains fresh experiences. Always does he more largely develop his inner faculties and power; always therefore, has he evolved to a point farther along the pathway than where he was before. It may be little, perhaps; it may be much.

Some people object to the teaching of reimbodiment, which in the case of man is called reincarnation;

and they so object because they do not understand it. Yet it is such an old teaching, and has had the common consent of universal humanity. Until the last eighteen hundred or two thousand years, all the nations of the earth believed it and taught it, as was the case in the European world at that time; and the doctrine is still believed in and taught by the greater part of the human race.

Some people say: "I do not like the idea of being reincarnated. My life has been very sad. I have suffered deeply; this earth has been the scene of my sorrows; I don't want to come back here again." But they do not understand.

Others say: "Yes, I like Reincarnation as a theory; I recognise it as the most logical explanation ever offered to thinking man of the problems of life; but I don't like the idea of coming back into this world and having to go through all that I have been through; and the thought of making the same mistakes over again repels me." They also do not understand; and I am going to show you why.

These objectors seem to think that they will come back into the same old body that they had before. Unconsciously in their own minds resides the thought that they are going to have the same old name, be in the same old station of life, and have the same old troubles, and do the same old work. No.

In the first place, reincarnation before eighteen hundred or two thousand years have passed, as our teachers have taught us, is an exceedingly rare thing — so rare that we may forget the exceptions. So far

as that goes, look at the differences in the conditions of life as they exist in our own present world, and what they were eighteen hundred or two thousand years ago. Yet nobody today complains of being in this life, and most people seem to cling to it rather fervidly. The objectors forget that the laws of life are not what we at any one particular moment of time may think that they ought to be, or what we in our blindness might wish them to be. We cannot change the courses of existence by our likes and dislikes, which we have evolved in this present life.

You do not come back into the same old body. You have a new body, obviously. You do not come back into the same old house, which by the time of your return will have become forgotten dust. Your condition in life may, in your next incarnation, be very much better, or it may be very much worse than the present; for if you do not behave yourselves now, when you have the chance of bettering conditions, you certainly will have to take the consequences.

This is the meaning of Karman, the doctrine of consequence. We reap what we sow, and where we have sown, and if we have sown seeds of good and evil in this life and on this earth, it is only in another life on this earth that we can reap what we have sown. Would not a farmer be considered a lunatic did he sow a field in one part of the county where he lived, and some months later travel to another part of the county, far from where he sowed his seed, in order to reap his crop? So it is with man. He sows seeds of thought and action, and he reaps that crop where he

sowed them, which is in himself and in this physical world.

Our universe is ruled by law and order; and this word Karman expresses that fact of universal harmony and consistency manifesting as what we call law and order. Everything that you do, everything that you think, is a productive cause, affecting you and affecting those around you, yet leaving the seeds and the fruits of such thoughts and actions in yourself. This is common knowledge. You have laid up for yourself in past lives treasures for happiness; but you may have also laid up for yourself a treasure-house of another kind, and you are doing similarly in your present life. You are going to have a body and a character in your next incarnation which will be the exact fruitage or consequence of the entire sum total of what you have thought and done in this life, as modified only by the as yet unexpressed and by the as yet unworked-out consequences of previous lives.

I have heard an objection of another kind, running in the contrary direction; and it is this: "I do not like the idea that I am going to come back and be another man. I want to be myself. I do not want a new body: I am satisfied with this body of mine. It has treated me well, and I have tried to treat it well, and I want this body and not a new one." Those who make this objection also do not understand. As a matter of fact, they are going to keep that same body! Now this sounds like a contradiction of what I have just said before, doesn't it? But it is not; it is a paradox. What then do I mean? I answer by asking you a question:

What is a body after all? It is a form, a name, and nothing more. The ancient Sanskrit writings, as outlined in the noble Hindû Vedânta philosophy, called it *nâma-rûpa,* meaning a name-form.

The fact is that your body is composed of hosts of lives, of smaller and inferior entities, which are nevertheless learning entities just as you are. And I may add in passing that we too are hosts of smaller lives, smaller and inferior to cosmic entities far greater than we are. But these hosts of lives inferior to us and which compose our bodies — what are they? Are they for all eternity just standing still as they now are? No, they are evolving even as you are evolving. They came from you originally; they are your own children; they are what we call your 'life-atoms'; they sprang from you; you sent them forth, and you will have to meet them again, when they return to you at your next incarnation, through and by the action of psycho-magnetic attraction. They will provide for you when they reaggregate themselves into a physical form for your next incarnation; and you will have a body consisting of just what you have impressed upon them today and in past lives by your thoughts, by your acts, and by the consequences of your thoughts and acts.

So that the next body that you will get will be — not the same old body that you had before; that is to say, not the same John Smith or Mary Brown, not at all; for John Smith and Mary Brown are but a name and a form — but your new body will be composed of these same life-atoms in which you lived and worked and expressed yourself in the preceding incar-

nation, which is your present life. And remember that these life-atoms exist not merely on this physical plane where our physical body is. There they do exist and do form our physical bodies, but they exist likewise on the intermediate planes of which I have spoken: that is to say on the astral plane, on the emotional plane, on the mental plane, on the intellectual plane, and on the spiritual plane.

It is by means of these life-atoms on all the different planes that the ego-self, emanated from the Monad, is able to build for itself new bodies, inner and outer, in the new incarnation. It passes through all the intermediate planes, building up for itself on each one of such planes, from the same old life-atoms that it before had — its own children, waiting for it there — a vehicle or body appropriate to each such plane. Similarly is it on the physical plane where the physical body is. Here we have the original and correct explanation of the much misunderstood Christian doctrine called 'The Resurrection of the Dead.'

Now there are three methods, we are told, by which Reimbodiment proceeds, and these three methods work together in strict harmony. One method is what we commonly call reincarnation, which the mystics among the ancient Greeks called 'metensomatosis,' that is to say, coming again into body after body, re-imbodying. This word was taken over from the Greek Mysteries by Clement of Alexandria, one of the earliest of the Christian Fathers, although with certain modifications due to his Christian bias.

The second method is the procedure called 'metem-

psychosis,' that is to say coming again into a soul, or psyche — re-ensouling.

The third method, which the Greeks kept secret in their mysteries, but which certain Greek philosophers such as Pythagoras, Plato, Empedocles, and later the Neo-Platonists more or less openly hinted at or taught, and which Theosophists today openly teach, is the activity of the Monad, that is the Spiritual Fire at the core or heart of each one of us, for this Monad manifests our spiritual self, because it is that spiritual self, a consciousness-center which is the fountain of our being, whence issue in flooding streams all the nobler energies and faculties of its own character, and which, considered as a unit, furnish the urge or drive or impulse behind all evolutionary progress.

First, then, there is the activity of the Monad, the highest; during the process of incarnation the activities of this Monad develop the intermediate nature which ensouls soul after soul, and this is the real meaning of the old Greek word 'metempsychosis'; and these souls thus invigorated, inspired, and driven by the ensouling Monad, ensoul body after body, which is 'metensomatosis,' or reincarnation, as the word is commonly and properly used.

Thus, evolution proceeds on three general lines: the spiritual, the mental-emotional, and the astral-vital; and the physical body is the channel through which all these inwrapped capacities, tendencies, and powers, express themselves on the physical plane, if the environment at any particular moment or at any particular passage of time be appropriate and fit for the

expression of this or that or of some other such attribute, power, or faculty. The combination of these two — the inner urge, the drive, and a fit and appropriate environment or field — means the evolving, the coming out into manifestation, the expression, of those inner forces or powers.

As is evident, this includes a far wider and vaster conception of evolution than any that has hitherto been entertained in the ranks of the scientific researchers — the Darwinists for instance.

The strength of the doctrine of Reincarnation lies in itself, in its appeal to our intellectual and logical faculties, in its own persuasiveness, in the manner in which it answers problems, in the hope that it gives, in the light that it sheds upon collateral questions of human life, and indirectly upon the problems of the physical world surrounding us. There are in this teaching no lapses of reasoning, no awkward hiatuses in logic, no gaps of thought that have to be bridged by such phantasies as blind faith, or by guesswork; and this you realize fully when you study it earnestly, advancing from point to point in thought, not merely according to the formularies of logic, but with the added help of the facts of Nature which we see around us and which we begin to understand somewhat.

Men reincarnate, not because they are specially favored to come back again to this earth, which many pessimistic philosophers have called a vale of tears. No! There is no such conferring of favors in the universe — if it can be called a favor. It is through and by reincarnation as a natural fact, that we learn the

beauty of the inner life and thereby grow, developing a larger comprehension, not only of ourselves, but of the loveliness inherent in the harmony of the universal laws. For there is back of all things simply beauty, and bliss, and truth.

What men call evil and misfortune and accidents, and the disastrous phenomena of the physical world which sometimes occur, all arise out of the conflicts of the wills and powers of the various hosts of imperfect but evolving entities, one of such hosts being what we collectively call humanity; although, as I have just stated, the root of things is simply beauty, and bliss, and harmony.

Reimbodiment is a universal fact because it is what we call a law — that is to say a continuous and consistent operation of Nature — running throughout all being. The universe reimbodies itself when its course has been run, and after its period of rest which thereupon follows; and men do likewise; not because reincarnation is for them alone, but because it is the same fundamental law of cyclic beginnings and endings, and in the case of man it means only that he returns to pick up again the threads which he had dropped at a certain turn of that cycle which we call death. That is all — its rationale put in simple words.

Its procedure is strictly lawful, there is in its working no haphazard chance, no fortuity, no favor; it is simply the succession of state following upon state in strict accordance with cause and subsequent effect. Nobody and nothing operates it. It simply is; and its working is set in motion in every individual case by

the action of the will of the entity upon the nature surrounding it. No, no god created the law of our reimbodiment. It is an intrinsic function of Nature, and it acts in that way only because it can act in no other way, being simply a statement of the doctrine of consequences — of consequences following upon originating causes.

A triangle has three sides. If it had more than three sides it would not be a triangle. The circumference of a circle is a curved line, every point of which is equidistant from the center. If this curved line were a succession of angles finite in number, the figure would not be a circle. Similar to this idea of natural necessity is the proper understanding of what we call the laws of the universe. They are, because they are intrinsic functions of that universe, and are what they are because they represent the individuality of that universe, its essential characteristics.

16. Man's Body in Evolution

THE Theosophist, a thorough-going evolutionist, or perhaps more accurately speaking emanationist, looks upon the evolution or the perfection of the physical body of man with deep and profound interest. But with an immensely greater interest, with a far more profound and wide-reaching searching of his heart, does he study the evolution of the inner evolving monad which expresses itself through its physical vehicle, the body, and which on that account furnishes the drive, the urge, the impulse, ever upwards and forwards, causing that body to change its form slowly as the ages roll by into the Ocean of the Past, becoming with every new era, with every new aeon, a more fit vehicle to express the indwelling intellectual and spiritual forces and potencies of that monad.

These spiritual forces or potencies seeking an outlet, seeking to express themselves, work through the infinitesimal particles of man's inner constitution, the 'life-atoms,' as I have already described, which exist on many planes, on at least four below the intellectual part of that monad.

In the physical body these life-atoms are inshrined within the cells of that body, working through the

atoms of which those cells are composed. Thus is it that the evolutionary drive finds its outlet; it comes from within, expresses itself through the intermediate nature of man, then finds an expression through the physical vehicle, in order that the thinking entity may see this world of matter even as we do see it, and draw such lessons from companionship with it — as a master, if you please, not as a slave — which it may and can draw.

It is to the thoughtful mind a palpable absurdity to suppose that all thinking entities must have a physical encasement in all respects or indeed necessarily in any respect identic with the human physical body today. This would be equivalent to saying that no entity could have consciousness or intelligence or the power of consecutive thinking, or the moral sense, unless he had the physical frame in all respects identic with the human physical body today. The idea is preposterously unreasonable.

Intelligence and consciousness and the moral sense could live and express themselves quite as easily in physical bodies of an entirely different type from our present one; and, indeed, it is our teaching that self-conscious, intellectual, and even *spiritually* self-conscious beings live and follow the courses of their respective lives and destinies on certain other globes of our solar system.

On this earth, self-conscious beings, or what we call men, at the present time have the bodies they have as the fruitage of a long evolutionary ancestry, as the necessary resultant, evolutionally speaking, of bygone

workings of the inner urge or drive inherent in man's inner constitution and working thence through the physical matter existent at our present epoch; the same thing applies, historically speaking, to all preceding geologic periods and to all zoologic periods which are destined to follow our present one.

For instance, man might have a tail. Would he be less man, less human, if he had a tail? Not at all. A tail neither makes nor unmakes a beast, nor would it make or unmake a man. What is man? Man is the inner consciousness, a thinking entity, the source of the moral sense, the source of the intellectual power, the center of the spiritual aspirations which we all have. Man's body, on the other hand, is but the physical encasement in and around which he lives, self-expressing himself through it; and the manner of that self-expression through this physical body forms a part of the subject of our study.

As a matter of fact, hundreds of millions of years ago, during what the Theosophist calls the Third Globe-Round, in other words during the preceding great Planetary period, the earth bore its appropriate and characteristic fruitage of lives, and many and various were the classes and groups of evolving beings in different degrees of development.

At that remote time man did indeed possess a physical body or encasement of which a tail was then a more or less useful appendage. All record of that zoologic fact is at the present time completely passed from human memory; nevertheless our teaching is that the physical men of that period hundreds of

millions of years ago, did have a tail, albeit a short one.

You remember the old Hindû legends and mythoi of how the gods and the men of a past age then associated with intelligent beings who are in those legends and myths described as monkey tribes, who spoke and who constructed dwelling-houses, and who built cities, and what not? These myths, based upon half-forgotten memories of a geological past and handed down from generation to generation through the ages, acquired in far later times a legendary form in which we now possess them, as for instance in the very ancient and, by the way, extremely interesting epic tale, the *Râmâyana,* detailing the adventures and loves of Râma and his delightfully feminine companion and wife Sîtâ.

Indeed, if the mere lack of a tail as an appendage to man's physical body were the sole test of evolutionary progress, then the tailless gorilla, one of the anthropoid apes, and considered by some zoologists and by some anatomists to be man's most immediate beast-ancestor — then the gorilla, I say, stands higher than man along the pathway of evolution, because the gorilla has but three coccygeal bones or caudal vertebrae, i. e., the bones at the end of his spine; but man has four and sometimes five.

In addition to this interesting fact, we may point out in passing that it is well known that babies are sometimes born with a rudimentary tail. Nature makes no mistakes in her productions of physical beings, and such things could not happen merely by chance nor otherwise than as the result of what we might call an automatic reversion to a former condition.

What is man, I ask you again? Man is the inner entity, the thinking energy, the consciousness: all that bundle or aggregate of forces which is consciousness, which thinks, which has a moral sense, and which aspires. The beasts have all these spiritual and psychological potentialities in them also, but they have them latent; the beasts have not developed a proper vehicle for the self-expression of these noble powers and faculties. But in man those fine inner faculties have indeed possibilities of self-expression through a vehicle which has been evolved and trained to self-express them. Hence man is what he now is both physically and psychologically.

The truth of this matter is that man's physical or corporeal encasement expresses at any period of evolution exactly the state of self-expression on this plane which the indwelling Monad has attained. Consequently, his evolution proceeds in stages that his power or facility in self-expression creates, from the smaller to the greater, the expressing vehicle in consequence following step by step and line by line the urge or drive of the inner impelling power.

Thus faculty always precedes organ; the organ is its representative, builded up by the inner faculty for purposes of self-expression: otherwise, how could it exist? Whence could it come? What use would it have were there no preceding faculty which had builded it for self-expressive purposes? Things do not just arise in the universe in haphazard fashion nor without a well-defined and expressing cause behind them; hence, anything that appears or is manifest is an

obvious proof of a forcible urge behind it that is thus showing itself: in other words a phenomenon is a proof of a causal noumenon in the background which manifests itself through a phenomenon, which is thus its organ of self-expression.

It is a natural consequence of this that the physical body or encasement or vehicle must take on at different periods of evolution widely different and varying forms or shapes. Our bodies have not always been of the shape that they are now. What would you say to the statement that the original 'human' corporeal sheath or body in the early ages of this Planetary Round on our globe was of a quasi-spherical shape, that is to say an egg-like or ovoid form, in the center of which the entity resided?

Further, it was not exactly luminous but luminescent and translucent, star-like, perhaps we might say highly phosphorescent; and it is for this reason that we speak of that particular grade of matter as 'astral,' because such matter resembled the luminous nebulae that we discern in the blue dome of night; for astral means 'star-like.'

Since that far remote epoch of geological time, the bodily shape of the physical encasement has varied and changed step by step according to the calls of evolutionary necessities and progress, before attaining the form that it now has; and this change will continue progressively throughout future time, following faithfully, as the wheel follows the feet of the ox which drags the cart, every increase in power for self-expression that the inner entity acquires.

In the future, man's body will be far different in shape, different in texture, different in power of expressing the inner faculties, from what it is now. In the distant aeons of the future, our body will change equivalently with the passage of time, responding accurately to new needs, to new calls for self-expression, and to new stimuli from the outer environment to which the inner man automatically answers, and, further, that outer environment itself will slowly change to a much more ethereal and refined condition.

Aeons upon aeons hence in far distant future time, during the last part of what we call the Seventh Globe-Round, the outermost covering or encasement of the entity which man shall have become will have returned to an ovoid or egg-like form, and will be for the far more refined and spiritual matter of those future times, the physical or corporeal — if such words can be used — encasement of the self-expressing divinity at the heart of each such ovoid body. Of course in those days, instead of being composed of gross, coarse, physical substance such as our bodies now are, this ovoid outer form will be a garment of dazzling light, sun-like, glorious, resplendent, and the entity at its heart shall be that god-like inner man which man shall then have become through self-expressing the spiritual powers which he is in his inmost self.

Thus it cannot be too emphatically reiterated that the physical body springs from, is a result of, the spiritual and invisible forces inherent within. It is these forces which make that body and control it and govern it, and give it shape and hold it together. This force

of coherence, and all the other physical energic phenomena which the body manifests, have sprung from the inner fountain; for it is within the individual that lie the springs of energy or force, and therefore of all action.

Each man ensouls his own body. He is the oversoul, as it were, of each one of the molecules or cells or atoms composing that body. In like manner do we originate from our spiritual root, because our inmost Self reaches back into the Heart of the Universe. It is, in fact, this Self of us which is at the heart of the atoms themselves. It actually forms these atoms, and then casts them forth, excretes them as it were, and thereupon lives in them. Thus does man build up his body from his own interior life-forces, and works through it and manifests his various life-fires in it.

The Theosophist is therefore amused when he reads how medical investigators into the mysteries of the human body used to search in it for an immortal soul, some tangible proof of human immortality. In the name of all conscience, what did they expect to find? An immortal body? Some little mannikin lurking somewhere in the human frame? If there be such a soul, immortal as they supposed, did they not see that such a soul must manifest itself in the very things that they were looking at and not elsewhere? Where else could it manifest itself and how otherwise could it express itself than in the manner which Nature had provided? The proofs of the working of the inner entity were before their own eyes.

As you know, it was the theory then, that the sup-

posedly immortal soul left the body at death. Consequently, why search in a dead body for an immortal mannikin of some kind? Such a mannikin would have abandoned its vehicle, according to the old theory. A dead body, so called, neither speaks, nor breathes, nor laughs, nor thinks, nor sighs. What then is death? What has happened when the body dies? Something did so act and manifest itself when the body was alive; that something once manifested all those powers which the living man shows, and showed faculties transcendent with spiritual aspirations. What has become of them?

The truth is they could not see the forest on account of the trees! They could not see the working of the inner entity on account of the manifold phenomena which it expresses in the living body. They were looking at the things themselves and knew them not even when they saw them because they were searching for something which was merely a figment of their imaginations, vague, inchoate, uncertain, indefinite in outline. They were hunting for something, but they knew not what they were hunting for. Consequently they passed over with unseeing eyes and uninterpreting minds the very proofs before them.

How did such ideas arise among western European thinkers when science began to gather to itself some knowledge of the physical world, and the mind of man found itself more free to embark upon nobler thinking? Did these extremely limited ideas arise out of the fact that pictures and teachings which in the early days of Christianity were both symbolic, finally

came to be taken as literal facts — such for instance as the pictures that you may so often see in European Mediterranean countries of angels with human bodies, but possessing wings like gigantic birds; or beings with no bodies, and nothing but a head and a pair of bird's wings; or beings depicted as arising out of the corpse in the grave in the shape of a human form more or less outlined; or as sometimes shown, of a mannikin issuing from the mouth of the expiring one with the last breath?

These very materialistic reproductions of the so-called human soul were, as I have said, originally purely symbolic, and never were intended, when first used as symbolic reproductions, to be taken in their literal form. They were copied from the so-called Pagan, Greek and Roman symbolic reproductions of the passing of the inner entity at the beginning of the long sleep which they called and we also call death.

It is true enough, as a matter of fact, that the inner entity, as compared with its gross physical vehicle, is an energy, a force, to our eyes invisible, intangible to our touch, and manifests in the living body as such an energy or force or power, the faculties which it shows during such manifestation being its intrinsic character. Is not this exactly what takes place as shown by the phenomena of the living, conscious, thinking, aspiring, emotional, psychical, passional, intuitive entity as it works through the body? Strange compound of heaven and earth, a compound energy, a bundle of forces, which death separates out and lets go, each one of these along its own especial pathway.

Yet when we call the inner entity an energy, a bundle of forces, we likewise mean that it is substantially material in a nobler sense. And in this, the latest discoveries of physical science unknowingly corroborate our own archaic teachings, for the scientists today teach as strongly as we do, that force and matter, or energy and matter, are fundamentally one, matter being, so to say, crystallized energy, or force; and energy or force being, so to say, subtil and moving matter. There are, as has been shown, many degrees or grades or stages of substance. There is, first, the physical; then what we call the astral, or ethereal; then the more ethereal; then the still more ethereal; then the intellectual, if you like so to call it; and then the spiritual; and at the acme, forming the summit of the hierarchical progression below, as it were, is the Divine substance. Even so is man builded throughout his hierarchical inner and outer constitution.

This body of ours, such as it is at present, though truly wonderful if we look at it from one viewpoint, from another viewpoint is a most imperfect vehicle for the self-expression of the reincarnating and reincarnated entity. It cannot express a thousandth part, nay, not even a millionth, a billionth, part of what there is seeking self-expression in the inner man, the invisible human entity.

It is through the senses mostly that we seek to self-express ourselves; and everyone knows how imperfectly they receive impressions from the outside, to say nothing of their feeble power in expressing the locked-up powers and faculties and feelings which are within.

There are five senses as we now have them. Each one is the fruit of long evolutionary labor; imperfect as they are, yet how well they serve us; but how much better will they not serve us in the future as time passes: in the aeons of the future when they shall have become much more perfected, much fitter instruments for the self-expression of the inner entity.

This entity, when it seeks incarnation, is essentially an aggregate of forces, as said, spiritual, intellectual, psychical, emotional and astral-vital. When it finds its time for assuming (or reassuming) a new physical body, it is magnetically or perhaps electrically drawn into that family, more particularly into that mother-cell, which closest presents in its own cell-sphere the lowest rate of vibration of the reincarnating being. In this respect the attraction is magnetic and the incarnating entity is thereby drawn to the cell having a corresponding vibrational rate. Thereafter the rates of vibration coincide and become one in period. In this way developing life in the fertilized cell begins.

The atoms themselves are naught but equilibrated forces, and therefore the cells which they compose are essentially equilibrated forces. Thus it is easy to see how the communication between the visible and the invisible is naught but a question of similar or differing vibrational rates. It is all a matter of vibrational synchrony. You can make a piano-wire sing if you strike its keynote on another instrument. You can break a glass, shiver it, by sounding its keynote on a violin, as is well known, or on a horn, if you can catch and sound the same vibrational rate that the glass is built on.

I believe that in time to come physicians will discover the marvelous curative powers lying in sound, let us say in music, which, after all, is in its physical sense harmonious sounds.

As the body grows, that is to say, as the growing aggregate of daughter-cells forming the body of the individual-to-be receives in ever larger quantity, and in ever more specialized forms, the different forces of the entity coming into physical life once again from its long rest after its preceding life on earth: or, to put it in other words, as the growing body answers in continuously increasing perfection to the combined rate of vibration of the principles composing the entity then reincarnating, the individual characteristics of that reincarnating entity grow progressively more manifest.

While, as said, these rates of vibration are more or less diffused through the physical body when it attains adulthood, nevertheless there are foci in which and through which and by which the incarnating entity expresses itself, the channels, as it were, the canals, the open doors, through which it pours its lower aspects, thus self-expressing itself in that aggregated body of cells which is now in building, and shortly to be builded, and forming its physical encasement or body.

What are these foci? Generally speaking they are the various organs of the physical body. More particularly speaking, more specifically pointing out their location, we may say that our Theosophical teaching tells us of seven main foci or centers in the human body, each one fit to express, and builded for the purpose of expressing, one of the six general principles —

the physical body apart — of which man is composite, ranging from the spiritual to the vital-astral, the lowest.

Where are these foci, and what are they? First, please understand that an ethereal force, a subtil and delicate force, however tremendous its power may be, does not of necessity need a large physical organ for self-expression. If there be in the human frame, in the physical body of man, a point as large as the point of a pin, it may be enough. What we may see with our physical eyes, as so small a part of physical matter, from the atomic standpoint may contain heaven knows how many atoms.

These foci, then, these centers of etheric transmission in the human body, in the Sanskrit philosophical and other writings are called *chakras,* a word meaning wheels or circles, and therefore what we might translate in this connexion as ganglia or glands, perhaps. Two of these centers, if you please, we will leave unmentioned. I will mention the two highest of the seven, also the two lowest, and one which is intermediate between these. The two highest are within the skull: one of them is the pineal body, sometimes called the pineal gland, and the other is the pituitary body, sometimes called the pituitary gland. These two little glands or bodies enable two different and yet co-working and interlocking forces of the man, that is the real man, to self-express themselves through the body. They were builded for that purpose through aeons upon aeons of evolutionary labor, and in time to come they will be still more perfected than they are now, and therefore better able to express those

spiritual and intellectual and mental and emotional and psychic and ethereal powers which in their aggregate are man.

The intermediate focus or *chakra* we may call the cardiac plexus; place it, if you like, in the region of the heart; and the two lowest are, let us say, one the solar plexus, and the other which we will leave unnamed, but which has its location in the pelvic region. It is through these seven foci, channels, canals, openings, doors — call them what you like — that the incarnating and incarnated entity expresses itself; and through these seven, more particularly through these five, the forces of which man is composed are diffused through the entire physical body, which is his physical being.

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Evolution is the breaking down of barriers, and coincidently the building of the vehicle ever more fit for self-expression, that is, for expressing the interior faculties and powers of the inner entity. It is in part this breaking down of barriers, and in part the refining and building of the vehicle, which enable that inner entity to express its faculties proportionately. Evolution is not the adding of stone to stone, of experience to experience — not that alone; but it is much more the building up of the vehicle, becoming constantly more fit and ready to express or manifest some part of the transcendent faculties of the human spirit. A highly evolved man has a vehicle more fit and more ready than has a man less highly evolved; and this applies not only physically, but even more strongly on the mental and

psychical planes. The inferior man in evolutionary development has not so fit a vehicle, and consequently can express those powers but poorly, but ill.

Cleanse your minds of crystallized ideas that because things are as they are now, they always have been so and always will be, and always must be; for, after all, such would be the reasoning of a child, would it not? It is obvious that if things grow, they change; and change is always for betterment in the evolutionary journey — leaving aside all side-lines of growth, such as degeneration. We are now speaking solely of the general course of evolution.

We are all children of the earth in one very true sense on the one hand; and at the same time are we, on the other hand, the offsprings of heaven. Our earth has not produced that Wonder-Thing within us which directs and governs our lives, which gives us thinking and feeling and aspirations and longings for better things; no, that part which the earth produces is the physical vehicle; but the Wonder-Thing is we ourselves, and is native in the realms of spirit and ineffable light.

So, while we very definitely place man's body in the animal world, we do so because man's primeval physical form was the originant, the primitive source of that entire animal world — an earth product. But is man's physical body man? Man's physical body is but the poor shell inclosing and crippling the powers of a spiritual luminary.

Yet it is a wonderful thing, if we look at it from another standpoint; but in comparison with the glory of the god which man inwardly is, the beast which is

his body and through which this inner splendor seeks to shine, is as nothing. It is but an enshrouding veil, a limiting encasement. Yet it must be a fit vehicle, one appropriate to express those indwelling powers of a spiritual, intellectual, mental, psychic, and astral-vital nature, which in the aggregate are man.

It is thoughts such as these which teach us to see the value of ethical rules in life — those fine and noble instincts of the inner being, whose collective mandate is one which we dare not disobey, instincts which teach man that what is right is right, and what is wrong is wrong; and that there is no question about it; for it is a simple matter of moral logic.

Slowly and very gradually do the various vehicles or bodies, or garments, or sheaths, in which the inner nature of man, as of all entities, lives and works, become more refined, more capable of expressing the inner powers, the inner faculties. Behind all there is the general cosmic urge which commingles in action with the individual drive of the self-expressing entity, always forwards and outwards in self-expression, for the general as well as the individual impetus is always forwards.

And what is this engine whence flow this general urge and the particular drive? It is a spiritual engine. It is what we call the Monad — the divine root within us, taking its general life-force from the universal life of which it is an intrinsic and inseparable and integral part, and which at the same time is the fountain of the individual drive. Back of man, back of the animate entities on earth today, back of the many various

stems of animate organisms, there is in each case the vital drive of a living Monad. These monads are not soiled by the matter with which they work, and in which they work, and through which they work — not more so than the rays from the glorious sun are soiled or spoiled or lose their innate brilliancy by the water and scum and ooze and mud in the fetid swamp through which they may penetrate to some degree, cleansing and purifying all they touch.

It is this inner ray or spark of light in beings which furnishes the urge, the driving force, the innate impulse, to higher things. This light comes from the ocean of universal life; and from that universal life in the beginning of our evolutionary course we issued as un-self-conscious god-sparks, so to say; passing through innumerably varied stages along the pathway of evolutionary progress. We learn in each stage lessons appropriate thereto, thus garnering understanding of any such stage of our cosmic journey. Passing thence forwards, or, what comes to the same thing in the present instance, farther downwards into matter, we enter the human stage and there attain self-consciousness — a self-consciousness which grows and broadens ever more and more as time goes on; because with every step forwards, with every new lesson learned, our capacities have a larger field for self-expression; and evolution is nothing but progressive self-expression.

When self-consciousness has been won, each new step thereafter we can take with a more confident and a stronger stride ahead; and thus at every step forwards we learn more than we knew during the last

stage. It is thus that self-consciousness broadens into universal consciousness again, when we pass the turning-point of grossest physical matter, and turn our faces anew for the long, long upward ascent to the end of our planetary period. It is at the end of this period that human consciousness re-becomes universal consciousness, returning after having reached that planetary end of our evolutionary course back to the Source whence we originally came, no longer as un-self-conscious god-sparks but as fully self-conscious gods.

17. The Weismann Theory

EVERY human being — and we are speaking now of the human body — was in its origin a little cell, a living cell of microscopic size. As you all know, of course, a cell is composed of two main parts, both indeed formed of protoplasm, but differing in function, and these two main parts biologists have given names to as follows: the general or larger body of the cell, which is called the cytoplasm, or cell-plasm, is protoplasm; and the other main part of the cell is a smaller corpuscle within the cytoplasm, which is, so to say, its heart, which is called the nucleus, and in which resides more particularly the plasm which initiates growth and development, and which August Weismann, of the University of Freiburg in Germany, called the germ-plasm.

Weismann's theories had great vogue for some thirty or thirty-five years more or less, and they sufficiently approximate to what the Theosophical teachings are on the same subject, so that I call attention to them. In fact, when the doctrines of Weismann are properly understood, that is, when there is a clear picture of the method of that thinker held in the mind, we have some approximation to what the Theosophical philosophy teaches in so far as the origination of evo-

lutionary stocks is concerned, as well as of the origin of specific variation, which our modern biologists say is the real method or mechanical procedure, if we can use that term, of the working of evolution. Weismann's theories have been described by Dr. Peter Chalmers Mitchell, of Oxford, Cambridge, and London, "as ranking among the most luminous and fertile contributions to biologic thought of the nineteenth century."*

I am going to take Weismann's theory and supplement it with a very important factor which he has omitted because he knew nothing about it, and with this supplementary factor added to Weismann's theory you will have a fairly accurate picture of what the Theosophical teachings on this subject are.

A cell is a house of life. Everything that you now are was, physically speaking, in that original cell. Your physical body is the growth of that cell. It has grown into being you, each such cell into one of you. How did it grow? It grew by division, by self-multiplication, and, above everything else, by cell-specialization. It is precisely and especially on this ground of cell-specialization that rests the main foundation of what I am going to say.

*Weismann was at one time a fervent Darwinist. Later he became an equally fervent anti-Darwinist. He had learned more than he knew in his younger days when he elaborated his germ-plasm theory, and as he was an honest man and a courageous one, he dared even the ridicule and the derision and the obloquy that scientific men of necessity have to face if they dare to take any stand different in large degree from the popular theories of biological or evolutionary development of the times in which they live.

Weismann taught that the vital portion of the nucleus of a cell resided in what the cytologists or cell-specialists call chromatin. This substance, said Weismann, was the vital fountain of the nucleus of a cell; and given favorable circumstances starts its course of developmental growth after a particular manner.

Please understand that the cell which we are now discussing is the microscopic fertilized human ovum. When the ovum is fertilized then the cell begins to grow. This growth proceeds in the following manner: A cell divides into two cells, following the initial proceeding of the division of its nucleus. These two cells then proceed to follow precisely the same course that the original cell did, that is to say each one of the two divides into two; and this course of division and self-multiplication continues indefinitely, at least until full growth of the entity to be has been attained.

Thus then, we have the original ovum, which is one cell, the original cell; then two cells; then four cells; then eight cells; then sixteen cells; and so forth — the division and self-mutiplication proceeding coincidentally with cell-specializations, until the body has reached its full growth, containing cells to the number of many trillions.

It would seem to be likewise the truth that even after the body has attained full growth, the cells continue their divisions and self-multiplications in order to keep the body around a certain normal of form and weight, circumstances being propitious; but this division after full growth has been attained would seem to be somewhat different in results from those divisions which took

place when the body was developing into adulthood.

I have already said that in each such cell lie all the potentialities of the man or the woman to be in the future; and I ask you what it is which governs or controls the labor of the protoplasmic substance of the entire aggregate of cells as it grows into the various organs of the body to be? What is it in that original cell which makes it divide itself in particular ways as growth proceeds: what is it in that cell that makes it specialize itself so that of the trillions of daughter-cells, some become the cells of the heart, some the cells of the brain, some the cells of the spleen, or of the skin, or the bones, or of the muscles, or what not? To this wonderful question no confident answer has ever been returned. Biologists know only this: that we are builded of cells and that these cells always follow the same course, given favorable circumstances.

The human species produces children of the human species; the cells belonging to the body of any particular beast, produce offspring identic with that particular variety or species of beast; and in each case, there is the same wonderful division of the cell-life of the daughter-cells into separate organs; there is the same marvelous specializing of the cell-life into this, that, or the other part of the body. What is the directing power behind all this that guides the working out of such a marvel as we see the human body to be?

Weismann further said that the chromatin-granules which form the vital part of a cell resolve themselves into what are called chromosomes; and of these chromosomes it is now well known that there are a definite

number for each kind of being. These chromosomes, Weismann said, are a collection of what he called *idants,* or, perhaps, the *idants* are aggregates of bodies still smaller called chromomeres. Might we not ask whether the chromatin-granules are not these chromomeres?

However that may be, he further taught that these *idants* are in turn a collection or aggregate of what he called *ids,* and each of these *ids* again is a veritable microcosm, determining the characters both specific and generic, as well as individual, of the entity to be. The class, the order, the family, the genus, the species, the variety, the individual, were all wrapped up in potency, as potentialities, in each one of these *ids.*

Further these *ids* in their turn had each one a particular historic biologic architecture, so to say, or, what amounts to the same thing, a particular biologic group of impulses or urges or characteristics, which were the fruitage of past evolutionary activity. That is to say, its powers and function had been built into the form and type that they possess by the vast numbers of generations preceding the individual cell of the present day, in which these *ids* live.

Next, taught Weismann, each such *id* or microcosm in its turn consisted of minor vital units, subordinate vital units, which he called *determinants,* because these are the particular parts of the *id* or microcosm which determine all parts of the body subject to variation — determining, indeed, or perhaps evolving or governing, the evolution of the specific organs of the future body, in other words of all the organs which in their turn are

subject to variation, such as the heart, liver, spleen, and what not.

These *determinants* again, he said, were builded up of hypothetical corpuscles still more minute which he called *biophores,* a Greek compound word meaning 'life-carriers.'

Now, as is well known, each individual-to-be begins its career as a nucleated fertilized cell, a portion of the germ-plasm of one parent, or of the two parents in the case of the present method of reproduction among men and most of the lower creatures as well. The nucleus of this cell contains the essential germ-plasm, composed of chromosomes or perhaps of chromomeres, which in turn are formed of *idants,* which are collections of *ids,* the *ids* in their turn formed of *determinants,* and the *determinants* of *biophores.* As growth by food absorption and other means takes place, as multiplication proceeds, each one of the energies resident in and forming the particular characteristic of each one of these things, *ids, determinants,* and *biophores,* springs into action and begins its own particular labor.

As the body grows, it is the determinants that from the beginning outline and finally form the various organs, each such determinant as the growth proceeds assembling or marshaling to its appropriate organ or organs, of the entity into which the cell is growing, the appropriate portion of the germ-plasm which is itself.

Weismann further taught that man's body is composed of two kinds or varieties of living plasm: a

somatic plasm or body-plasm, and a germ-plasm. A part of the germ-plasm which originates all the activities which follow its fertilization, is passed on unchanged and undeveloped from parent to offspring, lying latent, as it were, until the call for a similar activity of entities to be. This amounts to saying that a certain portion of the germ-plasm is passed from the parent to offspring in a state of latency, and is not used in the building of the body of the parent nor of the offspring to be, which in turn transmits it to *its* offspring. As a matter of fact, all this simply amounts to saying that we have in our body as germ-plasm the identical substance that was in the bodies of our remotest ancestors, which has come down to us in this fashion and which provides the material for the growth of each generation, as called for according to the theoretic outline of cellular activity which Weismann has set forth.

This carrying on of the germ-plasm from parent to offspring through numberless generations is a most interesting and fertile subject of thought. It means that in our bodies exists the very germ-plasm that existed in the most distant of our progenitors; so that, for instance, our First Race, physically speaking, even yet lives in us, because the plasm of its body has come down through the vast multitudes of our progenitors to our own bodies. We carry in our bodies today the very germ-plasm which first came into being from the astral realms, and which lived in that First Race, and which has been transmitted down to our own time through all the Races to the Fifth, our present one.

This immortality of the germ-plasm, as it has been frequently called, descends through the ages, from parent to offspring, the determinants in each generation marshaling to each appropriate organ of the body that part of the living plasm which goes to form it. The germinal or reproductive part of the germ-plasm is assembled or marshaled to the reproductive organs of the new individual. A portion of this plasm is unutilized in each generation, and is marshaled as the body grows to the proper organs of the new generation; and a portion of this springs into activity when the time comes for it so to do; the portion thus springing into activity originating anew the same cycle of activities that I have already described.

That portion of the germ-plasm of the cell, that portion of the nucleus, which is not carried over to the offspring in a state of dormancy, in other words all the rest of the germ-plasm remaining in the cell springs into activity and proceeds to build by multiplication and specialization the body of the individual to be. So that we see here two portions of the cell: the sleeping or dormant portion of the germ-plasm carried over through generation to generation, on the one hand; and the kinetic or active part of the germ-plasm which proceeds to form the body of the individual into whom the cell will develop.

So far we have been speaking of the nucleus or the germ-plasm; but the protoplasm of the other part of the cell, which Weismann calls the somatic plasm, is used in part as food by the reproductive germ and in part is used for the building up of the general body.

This constructive work of the somatic plasm proceeds coincidently with the disintegration of the *ids* which are left over and are not used in the manner aforesaid. Each one of the other *ids* of the *kinetic portion* of the germ-plasm, as the cell proceeds in its division, no longer forms an aggregated reproductive corpuscle, but disintegrates in that respect: I do not mean that it disintegrates in the sense of going to pieces, or becoming inferior, or in the sense of decay or death; but in the sense of their breaking up their unity and losing the particular faculty of *self*-development. Instead of that line of labor, they become a simpler protoplasm, the somatic plasm, and their energies are turned to building the body.

As I have already pointed out, each *id* is an aggregate of *determinants,* and when any such *id* disintegrates in the manner outlined above, the individual development or reproductive faculty of it is thereby lost; the individual *determinants* then spring into activity, and as growth proceeds, the particular *determinants* in each *id* are marshaled to their proper place and organ of the growing body. The heart receives all the heart-determinants, the liver all the liver-determinants, the brain all the brain-determinants, and so forth; each receives the aggregate of determinants from all the daughter-cells which belong to it. Thus is the physical body builded.

This teaching explains more explicitly than the general remarks I made earlier, why it is that a part amputated from the body of the higher creatures will no longer grow into a new individual, as happens in

the cases of certain of the lower creatures, as for instance in the case of a certain worm which I have already cited. The respective *ids* in the human body as at present developed, have lost their individual reproductive faculty of self-development and remain as it were but a collection of determinants.

As another eminent German biologist points out, we should not believe that it is the mere aggregation or collection of cells which, through their absorption of food and by their division and growth and multiplication, originate and make the body. It is rather the individual body which forms and makes the cells; and this is precisely the teaching of Theosophy.

The first or originating cell is the root of the body. As it grows, the latent powers and potencies of the entity seeking incarnation begin to work upon the plasmic substances, and it is that inner entity which governs and controls the growth of the cells which form its body to be.

This teaching of Weismann is in some sense a partial reversion to the biological thought of the eighteenth and seventeenth centuries, but it is so much more comprehensive, it appeals so much more to our logical faculties, that we see it as a truly constructive theory of growth; and it approaches very nearly to the ancient teaching, although we cannot accept all the details that the theory calls for. Yet the general principles that he enunciated are singularly close to our own.

Let me point out further that while Weismann's theory is a returning, in some respects, to the biologic thought of the eighteenth and seventeenth centuries,

this does not mean that the extravagances which those earlier theories involved and which were taught by Charles Bonnet and Robinet, otherwise great men, are endorsed in any manner, either by Weismann or by ourselves.

These men taught the doctrine of encasement or incapsulation, meaning that all future offspring were carried in the reproductive plasm of man's earliest ancestor or ancestors. Those who taught that all future generations were carried in the substance of the ovum of the mother were called Ovulists; while those who thought on the contrary that all the future generations were carried in the cells of the male parent, called themselves Animalculists. These theories are all more or less extravagant, and in some instances took rather curious forms.

Hartsoeker taught that there was a mannikin seated in the head of the male cell, and that when it fertilized the ovum, the mannikin gradually grew to human size. This of course is wrong, in some respects truly grotesque; but the Theosophist in sheer justice will point out that incorrect as the conception is, it is a very remarkable intuition of the fact of the inner incarnating being striving to incarnate through its overshadowing of the cellular potencies, striving to express itself; not a mannikin sitting in the head of the cell, and growing to human size, which is absurd, but the outward flowing of the inner life-forces derived from the reincarnating entity, through the cell-substance.

Now to return to the Weismann theory: Why is it that one portion of the cell should lie dormant and

be carried over to the offspring, and another portion of the cell should proceed to build from its protoplasmic contents the body of the individual which it is destined to form? So far as I know, biologic science has no answer at all to this; but Theosophy has. The reason is the action of the law of Acceleration and Retardation, which means that when any dominant power appears, all subordinate parts become subservient to it, or sleeping. The dominant or active parts move into accelerated action; while the dormant parts are retarded.

The reason again why the X-portion of the germplasm should be carried over dormant, and the Y-portion should proceed to form the body, lies in the great fact, unknown to Weismann, which we call the activity of the astral fluid of the Dhyân-Chohan. The fact is that any cell, although destined to grow into one individual, is, like that individual, composite of a host of inferior lives, and that particular unit-life of the host which is the dominant in the aggregate, due to the influence of the incarnating astral fluid, is the one which controls the nuclear protoplasmic portion of the cell, and governs the building of the body.

At this point let me quote part of an extremely able résumé from the *Encyclopedia Britannica.** After the *Britannica* writer outlines the general scheme of *idants, ids, determinants,* and *biophores,* which last, by the way, he says "become active by leaving the nucleus of the cell in which they lie, passing out into the general proto-

*Eleventh edition, article on 'Heredity.'

plasm of the cell and ruling its activities," he further goes on to say in outlining Weismann's theory:

The reproductive cell gives rise to the new individual by the continued absorption of food, by growth, by cell-divisions and cell-specializations. . . . The germ-plasm has grown in bulk without altering its character in any respect, and, when it divides, each resulting mass is precisely alike. From these first divisions a chain of similar doubling divisions stretches along the 'germ-tracks,' so marshaling unaltered germ-plasm to the generative organs of the new individual, to be ready to form the germ-cells of the next generation. In this mode the continuity of the germ-plasm from individual to individual is maintained. This also is the immortality of the germ-cells, or rather of the germ-plasm, the part of the theory which has laid so large a hold on the popular imagination. . . .

With this also is connected the celebrated denial of the inheritance of acquired characters. It seemed a clear inference that, if the hereditary mass for the daughters were separated off from the hereditary mass that was to form the mother, at the very first, before the body of the mother was formed, the daughters were in all essentials the sisters of their mother, and could take from her nothing of any characters that might be impressed on her body in subsequent development. In the later elaboration of his theory Weismann has admitted the possibility of some direct modification of the germ-plasm within the body of the individual acting as its host.

The mass of germ-plasm which is not retained in unaltered form to provide for the generative cells is supposed to be employed for the elaboration of the individual body. It grows, dividing and multiplying, and forms the nuclear matter of the tissues of the individual, but the theory supposes this process to occur in a peculiar fashion.

The writer then proceeds to show that the disintegration of this part of the germ-plasm takes place ac-

cording to the historical or biological architecture of the plasm, and he says in this connexion:

each division differentiating among the determinants and marshaling one set into one portion, another into another portion. . . . The theoretical conception is, that when the whole body is formed, the cells contain only their own kind of determinants, and it would follow from this that the cells of the tissues cannot give rise to structures containing germ-plasm less disintegrated than their own nuclear material, and least of all to reproductive cells which must contain the undisintegrated microcosms of the germ-plasm. Cases of bud formation and of reconstructions of lost parts are regarded as special adaptations made possible by the provision of latent groups of accessory determinants, to become active only on emergency.

It is to be noticed that Weismann's conception of the process of ontogeny is strictly evolutionary, . . . and from the theoretical point of view his theory remains strictly an unfolding, a becoming manifest of hidden complexity.

You have seen from what I have said previously that, whereas this theory may seem in some respects no different from that of the old materialism, it is different in one very significant way: the conception of the particular drive and urge behind each one of these inner faculties or powers of the cell which Weismann places in the *idants,* and individually and particularly in the *ids.* And to complete the doctrine, Theosophy adds to the innate life working in the cell, which Weismann has outlined, what we call the astral fluid of the incarnating entity.

Each cell is a vital organ. It is connected with heaven knows how many possibilities of becoming the initial step in the growth of some entity seeking rein-

carnation. In former periods of geological time, when the human stock was still young and unsettled in its courses, each of the cells of the then physical body of a human entity could under certain circumstances produce not solely a human being, but if detached from the human dominant influence, might readily grow into some inferior creature; and here is the hint of the truth of what I have formerly spoken of when suggesting to you the manner in which the entire stocks of the beast-world were produced from the human stock.

In our days this procedure can no longer take place. The cells are too tightly held in the dominant grip of the human astral fluid, and hence it is that a human cell will produce a human being, and a human being only; the reproductive cells of the various beasts will produce each one after its own kind, and only after its own kind; while in the vegetable kingdom the reproductive cells of a rose for instance will produce a rose and only a rose; and those of a lily will produce only lilies; and so forth.

It amounts to this: the reproductive germ or cell of any stock is the physical expression of an entity preparing or rather seeking, reimbodiment, and the astral fluid of this incarnating entity, mixing with the vital activities of the cell, becomes the directing power. I have used the words 'astral fluid,' but in view of what I have so often said before as to force and matter being fundamentally one, which is also a very modern teaching of science, although a very old one to us, when I say astral fluid I might as readily and as accurately have said astral forces. They are

forces, to us on our plane; but on the plane of the reincarnating entity they are a fluid or fluids.

Therefore, as I have just pointed out, this astral fluid mixing with the vital activity of the cells, becomes the dominant or directing power, carrying with it into the cell-activity its own larger urge, and thus becoming, as it were, the directing intelligent power in each one of the many divisions in the multiplication of the cell as it grows in bulk and as it specializes. The resultant of these combined activities is that the astral fluid, working through and in conjunction with the vital capacities and potentialities of the cell, produces the body of man.

The building of the body of man is a mystery to the unthinking, and a wonder to the thoughtful; and yet, as already said, marvelous engine as our body is from the physical standpoint, it is as nothing in comparison with the supernal wonders belonging to the real man within and above that body, belonging to man's astral and emotional, and psychic, and intellectual natures. And still more sublime is the splendor of the spirit. Man links himself in his present life mostly with the astral and emotional and psychic parts of his nature, because his higher faculties, his higher powers, the intellectual and the spiritual, are not yet able fully to self-express themselves through more perfect vehicles than those he has up to the present evolved; but those more perfect vehicles will be formed in due time.

As time, that resistless river of events, flows on, our bodies will become more refined, more fit, more capable of self-expressing what is within; all our hopes

and aspirations will then find fit and appropriate vehicles through which they may work. Yes, all this will come to pass; for the destiny of man on earth is a noble one and a beautiful one. So far as his physical body is concerned, he never was a beast, nor did he ever come from the beasts. On the contrary, they came from him as a primitive human physical form.

In his origin man was an un-self-conscious god-spark, a spark, as it were of the Central Fire; but that spark, through its own inner drive and urge, seeking self-expression, in aeon following upon aeon, originated at various times bodies for itself through which it worked, in which it lived, learning life's lessons in them and thus training its powers for perfecting a better vehicle in the following and succeeding imbodiments.

Thus we are all children of the universe. Every one of us is an incarnate divinity in our inmost parts, having powers and faculties, potentialities seeking expression. How can we help ourselves in this most noble of adventures? What hinders us from doing this instinctively? Two things mainly. The first is selfishness which beclouds our vision; and thus we fail to cultivate the universal sympathy inherent in our souls. The second hindrance is self-identification with the lower vehicles — the psychic, emotional, and physical bodies in which we live and work. This latter defect of ours is perhaps the worse of the two, though the former, selfishness, is the root of the latter. The latter is the worse mistake in the sense that by identifying ourselves with our body, and by false emotional identification of the divine spiritual fire within us with

the passional flames in which our physical bodies so often burn, we actually for the time being become one with these bodies.

This identification of our consciousness with the mortal vehicle causes the temporary loss of our self-consciousness at death, when that mortal vehicle disintegrates, and we fail to keep that consciousness from birth to birth or from death to death, as we could if we had trained ourselves to live wholly in our higher natures with their universal fields of thought. Instead, we live in our lower natures, and therefore falsely identify ourselves with those lower natures. Hence of necessity we participate in the vibrational rates of the emotions and of the feelings and of the lower physical fires that belong there.

This truth is so simple that a child can understand it: the choice between an alliance with the god within, or with the beast that the body is.

18. Karman and Heredity

KARMAN is a companion doctrine to Reincarnation. The one without the other is meaningless. It is the Law of Consequences, sometimes called the 'Law of Cause and Effect'; yet more strictly speaking, it is the operation of effects or consequences, for *Karman* is a Sanskrit word meaning 'action' — as cause plus effect.

The originating cause is the consciousness of the individual who acts upon Nature; Nature reacts against that action upon it; and that reaction ensues immediately, or at a later date, or even in a future incarnation of the original actor, or in a still more remote imbodiment of that actor in a garment of flesh. When the proper opening appears, when the links, so to say, are ready, when the doors open to the entrance of the forces of Nature constituting that reaction, then it comes. And the individual may say: "My God! What have I done that I should suffer so? I know no reason for it." Or, on the other hand, he may exclaim: "Immortal Gods! What have I done that my destiny should be so great? I remember nothing in my life causing it! There is no consciousness in me of meriting this, or of seeing my fellow obtain that other destiny through demerit. Yet I recognise, since this

is a universe of law and order, that it could have come to me not otherwise than as a reward for merit; nor the suffering of my unfortunate friend except as a just recompense for demeritorious action."

Our philosophic friend in this case would likewise readily recognise the fact that although his own karman is physically 'good' it will not remain so if he selfishly live in it and take no thought of his brother's misery. The best karman that can possibly be made by any human being is that which follows on recognition, and consequent appropriate action, of the fact of his intrinsic kinship with all other men, this feeling and sense of unity urging him to work to alleviate suffering and sorrow wherever they are found.

Karman is in reality character. It is that which a man has made himself to become, not just in the one life, but throughout the succession of lives which the invisible entity, *the man himself,* undertakes in his progressive evolution. This process involves the working out of karmic effects and explains the problem of heredity as no modern biologic theory has been able to do.

Certain Western scientists in the last half century or so have dealt vaguely with the exoteric Buddhist doctrines of Reimbodiment and Karman, believing them to be on all fours with the then latest teachings of biological science as regards man's physical nature and his destiny. This parallelism was brought about because they misunderstood just what the Buddhist doctrines were. Haeckel was chiefly responsible for this presentation, brought about as a result of one of his oriental journeys and his contact with the Buddhist

priest Sumangala, the head of the southern school of Buddhism in Ceylon.

However, Haeckel gave to the Buddhist doctrine a meaning too limited, too restricted, applying its terms to man's physical body only; whereas these two noble old Buddhist doctrines of Karman and Reimbodiment apply to man's character, to his *skandhas,* which are his psychological, mental, emotional and physical attributes.

Again, Huxley, one of the greatest biologists of his time, perhaps one of the greatest that Britain has ever produced, in his book *Evolution and Ethics,* printed in London in 1894, appears to speak — champion of materialistic biology though he was — as a believer of Reincarnation. But his words in no sense imply an acceptance of our doctrine of Reimbodiment. He says:

> Everyday experience familiarizes us with the facts which are grouped under the name of heredity. Every one of us bears upon him obvious marks of his parentage, perhaps of remoter relationships. More particularly, the sum of tendencies to act in a certain way, which we call 'character,' is often to be traced through a long series of progenitors and collaterals. So we may justly say that this 'character' — this moral and intellectual essence of a man — does veritably pass over from one fleshly tabernacle to another, and does really transmigrate from generation to generation.

Huxley is here speaking of the biological doctrine that a man passes on to his offspring his own characteristics, not merely of body but also his psychic tendencies, for these characteristics are supposed to lie latent in the germ-plasm, in other words, in the

reproductive cells which father and mother pass on to their children; and that it is in this something — what shall we call it? — in this 'character' as Huxley calls it, in this purely materialistic aggregate of tendencies, that lie all that a man later becomes.

It is perfectly true that this aggregate of physical and psychical characteristics and tendencies actually does, as Huxley said, transmigrate from the parent to the offspring; and 'transmigrate' is exactly the proper term to use here. We say that it is the life-atoms, or rather a portion of the life-atoms in a lower state of evolution, which do transmigrate from parent to offspring, for these particular life-atoms are they *which inform and vitalize the transmitted* germ-plasm.

Yet all this comprises not even a tithe of what is implied in the Theosophical doctrine of Reincarnation.

Huxley continues:

> In the new-born infant, the character of the stock lies latent, and the Ego is little more than a bundle of potentialities. But, very early, these become actualities; from childhood to age they manifest themselves in dullness or brightness — weakness or strength, viciousness or uprightness; and with each feature modified by confluence with another character, if by nothing else, the character passes on to its incarnation in new bodies.

The biologists of Haeckel's and Huxley's day said, "We don't know how this transmission of physical and psychic tendencies is brought about, but we do know that it takes place; and this is what we call heredity. Heredity is a fact. The son and the daughter do resemble their parents to some extent at least, and even their parents still more remote than their immediate

progenitors; this is what we know; and we must find out how this comes to pass."

Now the above quotation is indeed a statement of a part of heredity, but only a subordinate part. It belongs to that aspect of it which involves the transmission of the vehicles preparing for incoming souls, and this is accomplished, as I have already said, by the passing of the atoms of life, the life-atoms of a lower grade, through their transmigration from parent to offspring.

Transmigration, I may say in passing, covers a field of thought much wider than this. It has to do with the life-atoms composing the various vehicles in which man clothes himself — not merely his physical body. These vehicles are his sheaths of consciousness, the veils of his understanding; for remember that man possesses various bodies ranging from the spiritual to the physical, these bodies being on the different planes in which and on which he lives and moves and has his being and works out his destiny.

We are apt to think even in our day, on account of our continued subjection to the old materialistic doctrines of a bygone age, that when we speak of 'man' the only meaning of the word 'man' is his physical encasement, his body alone. This body is a part of man truly, but the lowest part of him, the most material part of him, the objective part. The real man is that spiritual entity, that sublime being, which is the root of his consciousness and which judges and intuits, which has aspirations, and therefore which aspires, which has realization of things: in fact, his essential consciousness, what we call the spiritual soul.

To return to Huxley's comments on character:

The Indian philosophers called character, as thus defined, 'karma.'

Yes, so they did; but Huxley's interpretation is but one small aspect of the great doctrine of Karman. The action of Karman finds place on all the planes — most of them interior and invisible — with which man's inner constitution is linked: spiritual, intellectual, psychical, emotional, astral, prânic, and physical; including, in short, all the various encasements or vestures in which man lives on these various planes, and which ensheath the glory which man is in his spiritual nature. And of this glory, we in our physical brain-workings get but a faint reflexion, somewhat as the moon gets a faint reflexion of the glory of the sun and transmits it as moonlight to our earth.

Huxley, then, sets forth with graphic truth the biologic karman merely of the body, as transmitted as effect from parent to offspring, through the working of the aggregate of the lower life-atoms, in their preparing of vehicles for incoming souls *of similar tendencies, of similar character.*

Huxley concludes as follows:

In the theory of evolution, the tendency of a germ to develop to a certain specific type, *e. g.*, of the kidney-bean seed to grow into a plant having all the characters of 'Phaseolus vulgaris,' is its 'Karma.' It is the 'last inheritor and the last result' of all the conditions that have affected a line of ancestry which goes back for many millions of years, to the time when life first appeared on the earth.

As Professor Rhys Davids aptly says (in *Hibbert Lectures,*

p. 114), the snowdrop "is a snowdrop and not an oak, and just that kind of snowdrop, because it is the outcome of the karma of an endless series of past existences."

Yes, just so; the teaching concerning this tendency of a germ to develop into a certain specific type is nothing new. It is an old, old conception. The old school of the Stoics in Greece and Rome expressed it as being the operation of what they called the spermatic logos, the *logos spermatikos,* that is to say, the 'seed-logos,' what we may call the character-logos, the consciousness-logos: in other words, that particular and individual part of the constitution of any entity which is its specific character. It is this *logos spermatikos* which makes the rose produce a rose always, and nothing but a rose; which makes the hen's egg bring forth a chick and nothing but a chick; which makes the kidney-bean seed grow into a kidney-bean plant.

Yet as Huxley interprets all these teachings, he is merely touching upon the heredity of the physical body; and true though his statements are they fail to take into account the astral directive matter-force of the incarnating entity. Taking this factor into account, you have as it were a thumb-nail sketch of the whole doctrine of the process of reincarnation.

What then is heredity from the standpoint of the Theosophical student and thinker? No clear-headed student will or indeed can feel satisfied with what the scientific theorists have written concerning it; and the proof of this statement lies in the fact that heredity is still under examination, and the question is still

constantly asked: What, after all, *is* heredity? It is unquestionable that children take after parental and ancestral types. Nobody denies the fact. Of white parents white children are born. What we call heredity is simply the carrying on from generation to generation of certain traits or biases or peculiarities or deformities or symmetries from father to son to son to son. Nobody denies this. But when one examines all the scientific ideas about heredity one finds that the scientists are not giving any explanations, they are merely describing a procedure of nature. But we ask: What are the causes behind this procedure?

Admitting then that the studies of heredity have shown the coming together of similar types in a family *milieu*, the Theosophist will point out that such assemblings of similar individuals is brought about by psycho-magnetic attraction. The facts of heredity as they exist are no mere fortuitous or chance happenings, nor are they merely a mechanical process, but they are the consequences of likes attracted to likes; and reincarnation is the means by which such aggregating similarities of character in a family are brought about. Thus ABC, GHI, XYZ, are all individuals with characters resembling each other, and consequently sympathy arises amongst these — what we call attraction. These egos, therefore, drawn by such psycho-magnetic attraction to each other, incarnate or take imbodiment in the same family *milieu;* and thus we have a picture of what scientists call heredity passing on from generation to generation.

It is attraction which brings people together. When

the entity is ready to reincarnate, it is drawn psychomagnetically, instinctually if you like, to the family, to the womb, most sympathetic to its vibrational rate. Thought and reflexion, study and examination, will show you that the immense likelihood is that you will be attracted to the family *milieu,* to the family environment, which offers you the closest vibrational rate to your own. Your vibrational rate has less difficulty in synchronizing with the vibrational rate of that family than with some other. Characters, therefore, find imbodiment in families which are most like the character of the imbodying ego. And here you have the real reason for similarities of character-types in families. It is not the parents who give the traits to the child. It is the child *bearing these traits within himself,* that is attracted by sympathy of vibrational rates to the parents who will give him a body best fitted to express the character he already possesses *in potentia;* and thus the general family type of character is continued, though with constant modifying variations.

Thus it is the imbodiment in generation after generation of any single family strain, of egos already possessing similarities, bringing these similarities into earth-life, and carrying them in and through such family, which brings about the phenomenon called 'heredity.' And this is as true of physical heredity as of psychic heredity, the life-atoms in every case, under the dominant urge of the different imbodying egos possessing similarities, more or less slavishly following these communal egoic sympathies or character-traits.

Being a bit more specific, one may point out that

the psycho-astral fluid emanating from the ego of the reincarnating entity flows through, permeates, washes all the life-atoms which build the cells with the latters' stock of chromosomes, genes, etc., etc. — to use the scientific terms at present in fashion. And, as explained elsewhere, the dominant psychic power of the reimbodying or already reimbodied ego forces these emanated cellular bodies in conformity with its dominant urges. Here we see what we may call the physical explanation of how it is that similar egos in a family will produce similar patterns on invisible planes, in their turn producing similar consequences or results in the developing ovum-plus-sperm, which in their turn transmit physically to their descendant these likenesses of type.

We have seen, now, that character is not something given to the child by the parents, but is carried over from life to life of an imbodying entity and brought with it into earth-life. How is this carrying-over brought about? The answer is to be found in a study of the skandhas already mentioned. When a man dies he takes with him into the invisible worlds the essence of that character which he had been building for himself in the life just ended and in other lives before that. These attributes are called his skandhas, and they remain as seeds of unfulfilled impulses lying latent until the time comes when they shall have an opportunity for further flowering in the field of another earth-life. The reincarnating entity attracts them together again as it descends anew through the portals of birth, and as the child grows they gradually mani-

fest themselves as his personality, his biases, his tendencies, his strengths and his weaknesses, in other words, the sum-total of the character of his personality, to use a technical Theosophical term, which must not be confused, however, with the immortal individuality, the essential Self or fecund root of himself on all planes.

But now then, if all the above is true, how is it that children born of the same parents sometimes differ not merely in small degree but even in very noteworthy degree? In every case it is *character* from other lives, to be sure, that is manifesting itself. But why does an ego sometimes find itself born into a family to which it is entirely antipathetic? Here is the answer. It sometimes happens — and this is a paradox — that strong antipathies actually attract each other, it being an old saying of philosophically minded observers of nature that hatred has its attractions as well as love has. So that in a single family we may see two or more children developing on the one hand most affectionate sympathies for each other, or on the other hand, even violent antipathies. This is a fact of common human experience, and in every case the attraction is due to one or another type of vibrational rates set up in other lives by former association, which links certain individuals together by ineluctable karmic bonds.

Furthermore, there is a type of wider heredity which has often been written about but the consequences of which facts or theories have never yet really been understood, the deductions have not as yet been properly drawn. Do you realize that every one of us

has in him the blood of practically every other white human being on this earth? Consider even the hypothetical calculation: two parents, four grandparents, eight great grandparents; and continue: 16, 32, 64, 128, and so forth, by the time you got back to the days of the Roman Empire, for instance, you would find that every child of today has in his blood-stream, that is, in his heredity, the blood-streams of every other human being belonging to the white race; and even possibly occasional or perhaps rare intermixtures belonging to the black race or the yellow race, etc.

It is an undoubted fact that in the small centers of nature's biologic group which we call the family, there is sufficient biologic urge for the children to resemble their parents, or it may be the grandparents, or the great grandparents; yet think of the enormous differences that so often take place in one family — demonstrating the even more powerful individual biologic or hereditary lines of unfolding life!

This fact of the common human blood stream flowing in us all accounts also for the cases of those individuals not belonging to the same family who not only have psychological traits and emotional biases which cement them into a close friendship, but who may even look more like each other than either one of these with the members of his own family.

In the last analysis we see that man inherits *from himself*. Heredity is character and character is heredity. And even in the case of the purely physical heredity, it can be said that man makes his own body, the parents merely providing the workshop and to

some extent the materials with which it is built. The incarnating entity is the directing power behind the scenes. And environment is simply the magnetic field that we have chosen in which we may best work out those aspects of character which are the 'dominant' for that particular incarnation.

Man is an individuality. He has free will. He is changing from day to day, from year to year, from life to life. He is not static. He is building now what his character will be in his next incarnation, and when that next incarnation arrives he will bring *himself* with him into the new life. He is thus his own heredity, his own character, his own karman. Here you have the explanation behind the 'facts of heredity' as taught by science, a reason that is consistent, rational, complete, and in accordance with every known fact of nature. And the key to it all is to be found in the doctrines of Reincarnation and Karman.

19. Lost Pages of Evolutionary History

IT IS the teaching of Theosophy that evolution — or the unfolding, unwrapping, self-expressing, progressive growth of an entity — proceeds in cycles both large and small. Each great cycle or great Tidal Wave of Life which sweeps over our earth lasts on this planet Terra for scores of millions of years; and each such Globe-Round, as we call such a Tidal Wave of Life, during the course of its manifestation or activity gives new birth to numerous great stocks of beings, ranging from elemental beings to those quasi-divine entities beyond mankind.

Some of these great stocks or Kingdoms of Nature below man are well-known to everyone: the Beast Kingdom, commonly called the Animal Kingdom; the Vegetable Kingdom; the Mineral Kingdom. Below these are the three Elemental Kingdoms or the Kingdoms of the Elementals. These last three kingdoms, those of the three classes of Elemental Beings, modern knowledge knows nothing of, except in this respect, that it recognises certain forces in Nature, and these three Elemental Kingdoms are the channels through which these natural forces pour into our earth and work in it and on it and through it and hold its component parts

together, being, as it were, the vital cement or energies of coherence which bind together the hosts and multitudes of hosts of the conscious and semi-conscious beings composing our Earth. These are the elementals.

There are likewise three other kingdoms of entities which are far more progressed than man is, which are above him in the scale of evolutionary advancement. These three superior kingdoms we call Dhyân-Chohanic. They consist of spiritual beings who were all once, in far past ages, men also as we now are. They had passed through humanity to attain their present stage or status of Dhyân-Chohanhood; and it is the destiny of humans likewise to follow this same path of upward progress, the destiny of each individual of the human stock if it prevail over the down-pulling forces of matter along its evolutionary pathway upwards — it is the noble destiny, I repeat, of each such individual human, in the future to become itself a member of these three higher and nobler stocks above mankind.

The ancients called these three stocks superior to man, gods. In modern times, I suppose, they would be called spirits; not, if you please, excarnate human entities, for to such excarnate beings the noble term 'spirit' is often grossly misapplied; but they are truly developed spiritual entities which we call Monads.

These three kingdoms higher than man, which he is destined to join in future time, form the three stages of progress preceding other still higher Hierarchies of beings, all evolving, all on the upward march, all ascending higher and higher and still higher, illimitably both in eternal duration — in the past as it will be in

the future — and finding their ineffably beautiful destiny in the boundless fields of spiritual space.

Each of these great stocks of beings produces entities of its own kind, of its own capacities, each having its own inherent drive or urge or tendencies. Each stock, in other words, has its own individuality, just as man has, or a beast, or a tree, or a flower, or any other stock.

Here we shall discuss that great stock or kingdom which we call the Human Kingdom. First it should be understood that the origin of man, according to Theosophy was not what the scientists are accustomed to call monogenetic, that is, the origination of man from a single point of departure. Theosophy does not teach of a primitive Garden of Eden, or of a single couple, an Adam and Eve who gave birth to the human race. This old Biblical mythos was symbolic, as even the Kabbalistic Jews knew, and should not be taken in its surface meaning, and in what is popularly called its 'literal' construction. Man's origin, I repeat, was not monogenetic but polygenetic; or, to be more accurate, a modified polygenesis; that is to say, the various stocks which form the human race as an entity, did not derive from one couple, but arose from several contemporaneous zoologic centers or points of departure, from groups living on different zones of the earth's surface aeons and aeons and aeons in the far bygone geologic past.

As nearly as we can give dates (due to the imperfection and uncertainty of interpretation of the geologic record) by studying the story of the rocks we may put back the origins of the human kind into the so-called

Palaeozoic or Primary Age of geology; and this First Race, this primordial race, composed of a number of subordinate individual strains, produced the various stocks which have descended even to our own day, albeit more or less mixed, and which we may very roughly classify today as the Pinkish-Brown, commonly called the White Race, the Black, the Yellow, and the Copper-Colored — the only four which remain of those seven primitive origins, those seven primitive biologic points of departure.*

During all those long periods of development, which run back for scores of millions of years into the past, in the present great Tidal Wave of Life or Globe-Round, the human stock necessarily passed through many varying forms, retaining, however, even from the beginning of true humans, the general type-plan of the human frame, yet varying greatly as it progressed and evolved towards a wider perfection with the passage of time down to our own day.

The evolutionary history of man is characterized by the development of what are called in Theosophy Root-Races. The Root-Races preceding our own were

*With regard to the question of the various theories as to the origins of mankind, whether such be monogenetic or polygenetic, the eminent English anatomist, Professor Wood Jones, in his booklet 'The Problem of Man's Ancestry,' page 41, writes:

"That all the races of mankind did not arise from one common point of departure, i. e., ancestor, is a view which has already been advocated (notably in more recent times by Klaatsch of Heidelberg University). It is one that carries high probability, and one which merits the expenditure of a great deal more work."

four in number; we are the fifth; and each of these Root- or Stock-Races had its own physical characteristics or specific features.

The first of these great Races which appeared on our earth during the present Globe-Round was in its beginning a race of astral entities, ethereal, invisible they would be to us in our present state of gross materiality.

This first great Race was sexless; that is, it had no sex at all, and propagated itself by fission; that is to say, it divided into two, each such fission producing a new individual: consequently the daughter of such a fission was likewise the sister of its mother. That first great stock-race lasted for millions of years.

As time passed, and as the cycling race circled downwards farther into matter, seeking self-expression in the material world, this First Race grew more solid, but it remained ethereal even to its end. It had no human shape such as we now understand it. Each of the individuals composing it was an ovoid or egg-like body of light, luminous, pellucid, translucent. These individuals had neither organs nor bones, and they were sexless, as said.

Have you ever considered the gelatinous structure of the jelly-fish, a medusa for instance? It may be to you perhaps a hint of something still more ethereal, still more luminous and translucent, than it. Life builds houses for itself of many forms and kinds, nor are bones and organs necessary for the templing of the vital entity.

When millions of years had passed, the Second Root-Race came into being. This Second Race was less

ethereal than its predecessor, for the races following each other in time grew constantly more material, more solid, more opaque, down to the Fourth great Root-Race.

The Second Root-Race was asexual and reproduced itself by a method which is still represented on earth among some of the lower creatures, that is by budding or gemmation. From a particular part of the individual a small portion of the parent-entity broke off and left its parent-body — the mother, if you can use the term 'mother' of an individual which had no sex at all; the offspring or bud left it somewhat as a spore will leave a plant, or as an acorn leaves the oak, this bud or small portion of the parent-entity separating from its parent and afterwards growing into an individual in all respects like to the parent from which it had separated itself.

Even as the individuals of the First Race had separated off from themselves a large portion of their body — which was that race's method of reproduction, as said — this large portion growing to the size of its parent, and duplicating it in all ways, so the Second Race reproduced itself by what zoology and botany call 'budding'; a swelling appeared on the superficial or outer surface of the body of one of these entities; this swelling grew in size, and as it grew became constricted near the point of junction with the parent-body, until at length the bond of union became a mere filament, which finally broke, thus freeing the bud, which then grew into another entity in all ways like its parent.

The Second Race was more material in physical structure, and more humanoid in appearance, than was the First, but it still was more or less translucent, although growing more opaque because more dense with the passage of every one hundred thousand years of its long life-cycle, which comprised many millions of years.

Towards the end of this Second great Stock-Race, which at about that period became still more viscidly gelatinous and filamentoid in structure (although it was still more or less ovoid in form), this race even then began to show some vague approximation in shape to the present human form. Its filamentoid structure likewise covered and guarded deeply seated nuclei within it, which were condensations of the general cell-substance. These nuclei, by the way, were destined to develop in the next race into the various organs of the body; while the filamentoid structure was, in its turn, destined to develop into the various physiological reticula or net-works of the next Race, such as the muscular system, the nervous system, the system of the blood-vessels, and so forth.

When this race had run its course, lasting for many millions of years, then the Third Stock-Race came into existence, still more physical than were the First and the Second which had preceded it, and constantly thickening, the gelatinous substance of the Second Race having become flesh, but flesh more delicate, thin, and fine even than our own of the present Fifth Race.

Let me add here also that, like the First Race, the Second had neither bones nor flesh (therefore no skeleton), nor organs (therefore no physiological func-

tions of any kind). Its circulations such as they were, and they did exist, were carried on by what may be called osmosis combined with magnetic attractions and repulsions — for lack of better words to express the process — working in this fashion in the body-substance.

With the incoming of the great Third Stock-Race, the filamentoid structure of which I have just spoken thickened or condensed itself, and became, as I have just said, the different parts of what is now the human body: the muscular system, the reticulum or net-work of the nervous system, and also into that of the blood-vessels; the inner filamentoid parts becoming cartilaginous, which, as the Third Race traveled along its cyclic period, finally became bones; while the nuclei, which I have spoken of as existing in the body-structure of the Second Race, and which in that Race then were merely adumbrated or foreshadowed organs, became in this Third Race the true organs of the body of the Third Race, such as the heart, the lungs, the brain, the liver, the spleen, and so forth.

The method of reproduction of this great Third Root-Race was in its beginning androgynous or hermaphroditic. The First Race, as I have said, was sexless; the Second was likewise asexual; and the Third started out by being androgynous or double-sexed; but about the middle period of this great Third Stock-Race, hermaphroditism died out, and our present method of reproduction ensued.

As regards the question of hermaphroditism or androgynism, it is already an established fact in phy-

sical science that the same condition exists in some of the lower classes of animate entities now on earth. Practically all antiquity taught it as a fact that early man must have been bisexual, if for no other reason than because of the rudiments of organs which even the present day man possesses — I mean rudiments of organs in the one sex which are more or less fully developed in the other sex, and vice versa.*

Quaint and curious as the story may now seem to us, accustomed as we are to think that our present method of reproduction is the only possible one, those very ancient human individuals reproduced themselves by laying eggs. The human germ-cell even today is an egg, albeit microscopic. But in those days these eggs, in which the infants incubated and from which they finally issued, were of much larger size than is the case today.

To recapitulate: Mankind first reproduced itself

*In his *Descent of Man,* chapter vi, Charles Darwin had the following to say on this subject:

"There is one other point deserving a fuller notice. It has long been known that in the vertebrate kingdom one sex bears rudiments of various accessory parts, appertaining to the reproductive system, which properly belong to the opposite sex; and it has now been ascertained that at a very early embryonic period both sexes possessed true male and female glands. Hence some remote progenitor of the whole vertebrate kingdom appears to have been hermaphrodite or androgynous."

And Mr. Darwin added as a footnote:

"This is the conclusion of Professor Gegenbaur, one of the highest authorities in comparative anatomy. . . . Similar views have long been held by some authors, though until recently without a firm basis."

by fission in the First Race; then by budding in the Second Race; then, in the beginning of the Third Race, of which point of its evolution I am now speaking, reproduction was insured by an exudation of vital cells, issuing from the superficial parts of the body, and which, collecting together, formed huge ovoid aggregates or eggs.

This method of reproduction is alluded to in our archaic books by the term 'Sweat-Born,' meaning not that this Race reproduced itself by sweat literally, but by an exudation of vital substance or cells which issued from the body in somewhat the same fashion that sweat issues from the sudoriferous glands, or as the oily substance of the skin and hair issues from the sebaceous glands.

As time passed and the condensation of the bodies of the individuals of this great Third Root-Race became greater and more pronounced, this exudation of vital cells slowly passed from the outward or superficial parts of the body into the inner parts, becoming localized in certain organs, which the process of evolution had been slowly forming for that purpose.

This same method of reproduction in its general line is Nature's way even today in our own Fifth Race, only it now takes place within the protecting wall of solid flesh and hard bone, which wall Nature has builded about the reproductive functions of our race for its greater safety. But essentially the procedure is exactly the same as it was in the early middle of the great Third Root-Race.

As time passed, during the life-cycle of this Third

Race, reproduction by egg-laying by the parent died out or passed away, as a method of propagation. In view of the coarsening or thickening or condensation of the fibrous or filamentoid substance which then composed the human body, Nature built a protecting wall around this function, as I have said; and whereas formerly these drops of vital fluid were exuded from nearly all parts of the body, as was the case at the end of the great Second Root-Race, more and more as time passed they localized themselves in a functional part of the organism which was the root of the later reproductive organs: these vital drops collected together and became the egg in which the human infant incubated for a few years, and finally issued from it, and began life safely, walking and moving even from the opening of the shell, much as a chick does today among us — a still living example of the old method.

Such was the method of reproduction in the great Third Root-Race at about the mid-point of its evolutionary course.

Another point of interest that I might mention in passing is that each of these Root-Races had its own continental system and islands on the face of the earth, had its own long-enduring cycle of life, and likewise its own physical appearance, albeit all of them, beginning with the Third, possessed the general type of the human frame even as we now know it, and of which each later race became a more perfect expression.

Then at the end of the Third Race, there followed the great Stock-Race which we call the Fourth, which was the most material of all in its physical development

— that Race in which matter reached its climax of evolution, its highest point of unfolding. All the powers of matter were then functioning in every direction, but spirit was correspondingly in obscuration.

This Fourth Race lived its millions of years and produced some of the most brilliant civilizations of a purely material character that this globe has seen. Finally it passed away in its turn, giving birth to us, the great Fifth Root-Race; to us, who are still men of flesh and bones and organs, still retaining the old method of reproduction, which nevertheless is destined to pass away in its turn, giving place to a newer and a higher method.

Yes, sex is but a passing phase, and the next great Race will see its end. As the First Race was sexless, and the Second was asexual, and the Third androgynous, and the Fourth fully sexual, we, who have barely reached the middle of our own cycle, we, who took over the last method of reproduction from the Fourth Race, will in time follow another method far nobler and far higher, more akin to the nobler instincts of our hearts and minds.

Towards the middle of the Third Race there occurred the most marvelous and epoch-making event in the history of humanity; and this was the infilling of the un-self-conscious humanity with mind and its god-like powers. From the geologic standpoint, that awakening of mind occurred at about the middle point of the Mesozoic Age of geology, which we may perhaps put at the beginning of the Jurassic Period, when, according to science, the kings of the earth were the

gigantic reptilian monsters whose fossilized skeletons are so frequently found in the rocks of that Age.*

It was then that began the opening acts of the human drama which we call civilization; and even in those remote days, even as early as the end of the Third Race, civilizations of real brilliancy succeeded each other in time, and have so lasted down to our own period.

The First Race, though physically conscious, was yet mindless in a sense, that is to say not self-conscious as we understand self-consciousness. Its consciousness was somewhat of the nature of a man in a deep daze or a profound day-dream. The individuals of that race had, as yet, no mental or intellectual or spiritual self-consciousness. Similarly was it with the Second Race.

The beasts today have no mental self-consciousness. All spiritual, intellectual, or psychological faculties that men possess are latent in the animals below him, but in them they are still non-functioning. In man only, at the present time, has the godlike gift, nay, I mean the godlike function, of self-conscious thought been awakened. That awakening will come to the animals

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*In speaking in the text above of these different geologic ages, prudence compels me to point out that I am here following the example first set in the Theosophical world by H. P. Blavatsky in her great work *The Secret Doctrine,* where she adopted the nomenclature of the system used by Lyell. Modern geologists have increased the length of the geologic periods so enormously since H. P. Blavatsky wrote that the geologic terms as used by Lyell no longer apply. It should be clearly understood that throughout this book, H. P. Blavatsky's time-periods are used.

below man; but because the door into the human kingdom is now closed and has been closed for many ages, this awakening by them to human consciousness can come no longer in this period of planetary evolution; and the animals will attain to it only in the next planetary manvantara or evolutionary great cycle, hundreds and hundreds of millions of years hence.

Nevertheless in a few of the higher animals, that is to say in the anthropoid apes, the divine powers of self-conscious thought are beginning to function in very minor degree, the reason being that, as I have already explained, the anthropoid apes are an exception in the evolutionary development of the stocks below man, for they have a strain of human blood in them, which like everything else is inevitably destined to work out its own inherent capacities. Their minds are dormant, but it is hoped, among a certain school of great Theosophical thinkers, that the monads now indwelling in the bodies of the anthropoid apes will have developed a true human albeit imperfect psychological apparatus of self-expression, in other words of self-consciousness, before the present planetary manvantara or great planetary evolutionary cycle is completed.

Please bear in mind, however, that when we call man of the First and Second great Races a mindless being, we do not mean that he was a beast; we mean only that the latent mind had not yet been aroused to function, through the partial incarnation in the waiting human individual of godlike beings perfected in a preceding evolutionary time-period, billions of years before. The man of that early period, though mindless,

possessed consciousness of a kind; he was, as said, in a sense like a man in a daze or in a day-dream, deep, complete.

As I have said, towards the end of the Third Race there occurred the Awakening of Mind; and this happened very largely by the incarnation in these now ready human vehicles, of godlike beings who had run their race and had attained quasi-divinity in far past preceding planetary periods of cyclic evolution.

These godlike beings projected, by hypostasis (to use a technical term), sparks, as it were, of their own full self-consciousness into the childlike humanity of that time, thus awakening also the latent native mental powers that had lain dormant or sleeping in the recipient humanity.

Whence came mind? Have you ever thought of it, of its wondrous mystery, of its power, of its illimitable possibilities, of its inherent connexion with self-consciousness? Does any sane man believe that self-conscious mind comes from what the old school of materialists called dead, unvitalized, unimpulsed, unurged matter alone? Thanks be to the immortal gods, that insane conception has largely passed away, as was inevitable because it was intrinsically as illogical as it was irrational.

Very few of the thinking men of today have no conception of some kind or other of the nature of self-conscious mind. The conception may be perhaps vague and inchoate; but it does represent some striving towards a rational and satisfying explanation of this most wondrous part of the constitution of man. Their

longing to reach some explanation of what is to them the problem: Whence came mind and consciousness, whence came self-consciousness? must in the very nature of things find an answer, because that longing is an intuition of reality.

With this coming of mind through the incarnation of these godlike beings into the intellectually senseless human vehicles of the middle Third Root-Race, came likewise the main characteristic of self-conscious intelligence which is, briefly, the steadily growing sense of moral and intellectual responsibility. It was at this point of the incarnation of the 'Sons of Mind' or *Mânasaputras,* to use the Sanskrit term, that man first became on this earth the truly self-conscious morally responsible being he now is; although indeed, it is of course true that mankind has evolved since that now far-distant epoch of the past.

Because of this incarnation of mind, men became conscious of their kinship not only with the hierarchies surrounding them in all nature, but they recognised their spiritual unity with the gods; and from then on they began to understand that the direction of their own future karman or destiny lay in their own hands. At first almost instinctively, but as time passed with ever-growing self-realization, they understood that they were thenceforth collaborators with the divinities, and the hierarchies of beings below the divinities, in the enormous Cosmic Labor.

What a picture such realization brought! What immense sense, thenceforth, of human dignity must have entered into their souls! For this greater sense

of self-identity with the Paramâtman of the Universe, with the Cosmic Spirit, provided vistas of future evolutionary grandeur which even today man dreams of but has not yet even intellectually fully realized.

It was to this awakened humanity of the later Third Root-Race that were given certain teachings which have been ever since in the guardianship of Great Men, true Seers, who have penetrated behind the veil of physical matter and who, in addition, have received a body of teaching about man and the Universe that today we call the Ancient Wisdom. This body of teaching stems back to those ancient days when spiritual beings from other and higher planes than ours consorted with the human race of that time; and it has descended in unbroken line from Master to Master, even to our own day.

As we reflect over the evolutionary picture which we have thus far drawn in this and preceding chapters, we realize that man is essentially composite of heaven and earth, as the ancient saying runs; and because he is a child of the universe, part spirit, part animal, therefore is he likewise a child of destiny — of that destiny which he himself is building with every breath that he draws.

Man is a child of Nature. Nature has not so much 'given' him his faculties by and in which he works, as he has them *de facto* as being a child of Nature. They are not a gift; they are not a development of something outside himself which has come to him; nor are they merely produced by man's reaction upon something else in Nature. They are innate in him.

They are he himself. They form his destiny by evolving out.

And what is this destiny that man is slowly through the ages evolving? It is for instance contained in two noble sayings of the Christian scriptures which I have previously quoted: Know ye not that ye are gods, and that the spirit of the Divine dwelleth within you? For verily each one of you is a temple of the divinity.*

These sayings have become a mere phraseology, because the beauty of the spiritual sense lying in the words has been forgotten. They have become merely pious ejaculations and little more — favorites on account of the intrinsic beauty of the imagery. But Theosophy shows what these sayings mean, and shows the pathway to the student, so that he may verily become what the sayings promise he may become, and in fact is at the core of his being. They contain a promise of immensely great ethical value, as well as teaching the very essence of what evolution is; because it is man's destiny some day to become what he here is promised.

In future ages, aeons upon aeons hence, when the human race shall have run its course for this great planetary life-cycle, it shall have developed into full-grown divinities, gods, Spiritual Forces on earth. Then we shall become like those now ahead of us, the Leaders and Teachers of the race, and the inspirers and the invigorators of those who shall then be below us and

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**John*, x, 34; *1 Cor.*, iii, 16.

who are even now below us; for we shall become the transmitter of the Universal Fire, the Spiritual Fire, the Fire of pure self-consciousness, the noblest activity of the Universal Life.

That is what the gods are at the present time. These spiritual beings, these high messengers of the Universal Life and transmitters thereof to those below them, were once men in far bygone cosmic periods, even as we are now men. Through past earnest endeavor, work and inner research, honesty and sincerity, universal love and universal compassion, these higher entities have allied themselves with the inner spheres along the pathway which each one of us is, and which they have trodden farther than we have as yet gone.

It is the higher, working with and in the inferior, who stimulate the inferior, help them always, give them light, awaken them, lead them on. Thus we have even among mankind those superior ones who are our guides and helpers. We call them the Fine Flowers of the human race, the noblest fruitage that the human race has produced; and for them we often use the Sanskrit word 'Mahâtman' meaning 'great soul,' more accurately perhaps, 'great Self.'

Such great souls are well known in the world. Nothing is so common to us as some knowledge of them. The Buddha was one; Jesus, called the Christ, was one; Śankarâchârya of India was one; Pythagoras was one; Empedocles of Sicily was one. They were and are relatively numerous — although not all of the same degree or grade, for they vary among themselves,

even as average men vary among themselves. There are the greatest; the less great; the great; then in descending scale come the good and noble men; then average men; then inferior men: a hierarchy of intellect and mind and heart.

These greatest of men have developed to its highest point of self-expression the human soul, so that it has become a perfect transmitter or a perfect vehicle for the inner god. But every man has within himself the potentialities of this inner god. When Jesus said "I am the pathway and the Life," he did not refer to himself alone as that pathway. He meant that every human being likewise who strives towards and endeavors to live that cosmic life, thereby becomes the transmitter of that life and its many, many powers to those below him.

Every one of us is a potential savior of his fellows; and it is our destiny from a potential savior or teacher to become an actual savior and teacher, one who has trodden that inner pathway successfully. For each one of us is potentially a god, a divine being.

20. Divinity the Source of All

ADEQUATELY to understand the Theosophical teaching of evolution requires the laying down of the general principle of the derivation of all entities whatsoever from a divine source, not in any sense as the children or creations of a personal Deity, but as the emanational evolution of quasi-conscious sparks from the heart of our own particular universe. Theological thinkers in days preceding the Christian era considered this to be the divine Hierarch of our own special universe.

We may ask ourselves: In our inner hunting for 'God' — to use the popular term — where is Deity? Where is the Divine? Vain question! Phantom of the foolish imagination of the untrained brain! It is a specimen of the logical weakness of the human mind, which, because itself is a limited thing, always seeks for limits and bounds, and has the greatest difficulty in translating into human words the godlike conceptions of the spirit indwelling in man.

We reject as unworthy of a spiritually minded man, of a truly logically minded man, any conception of the Divine less in grandeur than man's inmost intuition of boundless infinitude; we reject the idea usually passing under the term of 'a personal God.' Personality is limitation; even individuality is limitation. The Divine

is neither personal nor individual; and yet what can we call it? Assuredly it is not a he, or a she. What can we call it but IT — a term with us signifying the deepest reverence, and arising out of an instinctive refusal to attach human personal pronouns to the profoundest and sublimest conception of the human spirit.

The question of the Divine is a problem only so far as men have made it so. It is a matter of understanding causal spiritual — or rather divine — relations. We must all solve this problem for ourselves. The mere acceptance of the dicta of some other man will in itself lead you nowhere. It may possibly help you in the first steps of your studies as a mere rule of action, until you yourself learn to enter within the arcana of your own spiritual being and thus know causal relations from individual experience. This can most certainly be done and may be proved to be a fact by anyone who will fulfil the conditions of its doing. There is but one method of understanding the inner nature of the Self and its links with the Divine, and that is experiencing it by entering into it.

Show me a place where Deity is confined and I will show you a limited entity! No, the Divine is boundless, is subject to no places of limitation, is nowhere, because everywhere — nowhere in particular because everywhere generally. Therefore the search for the Divine can take only one form, follow one path alone; and that is inwards; along the pathway of the spirit, because this is the path of understanding, the path of conception, the path of inner realization, and the path of union and communion.

It is a vain and foolish imagining to suppose that the Divine exists extra-cosmically, outside the bounds of anything. But when man searches the inmost recesses of his own nature, the deepest of the deeps of his own spirit-soul, then indeed does he come nearer and nearer as that search advances farther and farther, towards some realization of what that Light is which illumines the fields of space; he thus advances constantly towards an ever-increasing and growing conception of the Divine, through endless fields of wisdom and expanding consciousness throughout all duration, which is boundless, beginningless, endless. That is the key to the Theosophical teaching regarding the Divine.

When the Christian intuits this somewhat vaguely, he speaks of it as the immanent Christos, and he speaks aright. The followers of all the great religious and philosophical systems — the Mahâyânists of Buddhism, the Taoists of their own classical period, the Neo-Platonic thinkers and mystics of the Hither East, the followers of the profound Vedânta and other Hindû systems — all have known the truth and practised this inner communion. Why is it then that so many of the Christian scholars and researchers — more so in times preceding the advent of the Theosophical philosophy, which has so largely elucidated these questions for the western world — why is it, I say, that those old-fashioned thinkers have called the religious beliefs of other times and likewise of those more modern men who accepted not their particular brand of belief, 'godless' or 'atheistic'?

In the early days of Christianity, Christians were

tried by Pagan judges for disobedience to the laws, and not because they refused to acknowledge or follow the state-religion. These Greek and Roman judges called the early Christians 'Atheoi' — or 'atheists' or 'godless' in the etymological sense. 'Atheist' then was no term of such reprobation as it is now. It then meant those only who refused to accept the gods of the popular state-religion. The fact was that these ancients, in their broad-minded polytheism, cared little or nothing what the individual beliefs of the Christians were, and the term 'atheists' was merely distinctive, perhaps ironical, scarcely derogatory; but they cared a great deal whether these Christians were obeying the laws of the state, quite apart from their religious beliefs.

When the Christians gained power with the downfall of the brilliant Mediterranean civilization, when Christianity grew by leaps and bounds and became the predominant faith, then the Christians in their turn called the still remaining adherents to the old religion, 'atheists,' because these latter accepted not the Hebraeo-Christian Jehovah. Yes, this term 'atheist' merely means: "You don't accept my God; therefore you are an atheist." Very likely the 'atheist' in his turn could retaliate justly and say: "You don't accept my God; therefore *you* are the atheist."

In the western world and nowhere else — and in the western world only because the real knowledge which Jesus gave to his followers was soon forgotten after their Master's passing — there are in religious thought three or four ideas as to how teaching concerning Deity should be formulated. One is called 'Deism,'

that is to say the doctrine accepted by those who believe that there is a personal God, but One who is apart from the world which He has created; that He takes no interest in it in particular; and that that universe which He created, in some very mysterious manner runs itself.

The second theory, which fundamentally is the same in principle as the other Christian theory, is called 'Theism.' This is the doctrine of those who accept a personal God transcending the physical universe, yet a God who takes a most lively interest in the universe which He has created, and in the beings which He created to inhabit that universe.

The third specimen of belief or disbelief as regards Deity is what is called 'Atheism,' which is the belief held by those who say that there is no God at all.

The fourth belief, which is misunderstood most deplorably, is called 'Pantheism,' which is the doctrine of those who say that the universe is inspirited with an impersonal life comprising universal consciousness and which exists in every particle, infinitesimal or cosmic, of that universe, and which Universal Life is the background of that universe: that this Universal Life is the source and also the ultimate destiny of every one of such infinitesimal or cosmic entities.

Theosophists may be called 'Pantheists,' provided that the word 'Pantheism' is used as we use it. But we shall reject any misuse of that term if applied to ourselves. We are Pantheists in the sense that we recognise a Universal Life infilling, inspiriting everything, so that nothing is apart or separate or extra-

vagrant, for such cannot be if this Life be universal and boundless.

H. P. Blavatsky defines our position where she writes in her magazine, *The Theosophist,* (Oct., 1879):

> For to be one [a Theosophist], one need not necessarily recognise the existence of any special God or a deity. One need but worship the spirit of living Nature, and try to identify oneself with it. To revere that *Presence,* the invisible Cause, which is yet ever manifesting itself in its incessant results; the intangible, omnipotent, and omnipresent Proteus: indivisible in its Essence, and eluding form, yet appearing under all and every form; which is here and there, and everywhere and nowhere; in ALL and NO-THING; ubiquitous yet one; the Essence filling, binding, bounding, containing everything; contained in all.

If the Divine is anything, it is boundless. Nothing can exist without it. It is everywhere, but nowhere in particular; for if it were it would be a limited thing. Therefore we say that the Divine is the All, and no thing — the All, because otherwise it would be less than boundless; no thing, because it has no limitations; it is not a thing, nor a being, nor an entity, in the sense that these words usually have.

The English poet, Alexander Pope, when he says:

> Know then thyself, presume not God to scan;
> The proper study of mankind is man,

uttered a most astounding fallacy from the Theosophical standpoint. "Man, know thyself," *gnôthi seauton,* was an archaic Greek motto written over the portico of one of the temples of the Oracle of Apollo of Delphi. Know thyself, is indeed the injunction; but why are you so enjoined? It is because in knowing thyself,

in looking within, in marching ever inwards, in going farther and farther into the depths of your being, you come ever closer and closer — but never can you fully attain it — to the Universal Life.

The Divine can be understood by looking within, along the path of understanding, along the path of comprehension, along the path of intuition; for the very root of man's spiritual nature is that Divine itself, our spiritual origin, our impersonal parent, the source of our essence; from it we sprang in the far distant aeons of the illimitable past on our cycling journey downwards into matter; and to it shall we return in the far distant cycles of the future — but then as full-grown spiritual adults, fully developed spiritual Monads. Having left it in the morning of time as unself-conscious god-sparks, we shall return to it as self-conscious divinities. It is we, and we are it. It is the inmost Self living at the core, at the heart, of each one of us; at the heart of all that is, of all entities that are; because fundamentally it is everything.

As a man thinks thoughts, which are ensouled things, because they are matter and yet spring from a spiritual being, so, speaking in symbolic form, the Divine sends forth from itself sparks of its own fire, and each one of these sparks contains in itself the root of Self, self-hood, self-consciousness, growing ever greater, ever larger, ever expanding, never reaching an ultimate, but always marching towards it in constantly growing greatness of consciousness and beauty. Man, therefore, is the temple expressing as far as he may by means of the building of the spiritual vehicle

within, the vast and ineffable glories of the Divine — of the Inexpressible. In man's inmost nature is the very heart of Deity.

There is an old Sûfî tale, and I quote it here on account of its beauty and aptness of application, for the Theosophist recognises truth wherever he may find it. This old Sûfî allegory sets forth the story that a soul once came to the portals of the House of God, and knocked. And the voice of God issued therefrom in tones of reverberating thunder: "Who knocks?" And the soul answered, "I"; and the same thundering volume of sound again issued from the crypts of the House of God, saying "Who is I! I know thee not." And the soul turned sadly away and wandered for ages and ages, and finally, having learned its lesson through suffering and experience, it returned to the House of God, and again knocked. Again came the thunderous volume of sound, "Who knocks?" And the soul answered, "Thou knockest." And then a whisper, inaudible to the ears, yet filling all the spaces — the whispering of Truth — issued forth from the Temple of God, and said: "Enter into thine own."

The moral here is that there is no longer separation, no longer division, no longer the contrast between the Inmost and the outer, nor between 'I' and 'thou,' between the god within and the very imperfect vehicle which says, I, I, I; but a full recognition by the spiritual adult, by the spiritual Monad as we Theosophists say, of its own Self, its own Source, answering in the Voice of the Silence, "Thou knockest!"

The Divine, says the Theosophist, exists every-

where, is everywhere, in 'vessels of honor' and in 'vessels of dishonor.' 'Vessels of dishonor,' to use the Christian expression perhaps familiar to you, are such only because the evolving entity in which this god-spark is inshrined, is a living entity, learning its lessons, and having its modicum of free will, and temporarily having chosen a path branching off to the 'Left-hand,' as we say; while the so-called 'vessels of honor' are they which, exercising their free will and power of choice, have chosen the path branching to the 'Right-hand,' as we say.

Every smallest spark, every most infinitesimal particle or corpuscle which in their aggregate infill the universe — which are indeed that universe itself and existing therein in incomputable multitudes — every one of these living entities inshrines a spiritual Monad, a spark of the Universal Life.

Monads are spiritual beings, self-conscious, self-motivated, self-impelled god-sparks, fully self-conscious for the Manvantara, as we call it, that is to say for this Great cycle of planetary life; and such a Monad exists at the core, at the heart, of every specific corpuscle or infinitesimal, and of these, as said, there are incomputable hosts; they are infinite in number literally. These infinitesimals, these atoms, these shrines of the Monads, offspring each one of them from its parent Monad, are elemental entities beginning each its upward march, as a thought will spring from the mind of man; for thoughts are things, and are ensouled.

These multitudes of living entities, following each one its own pathway of evolutionary development, ac-

cording to the Theosophical teaching, begin any particular line of evolution in the heart of the divine Hierarch of their own particular Hierarchy, pass downwards through the manifold and various stages of matter, rise again when the turn of a particular cycle has been reached, and again re-enter the bosom of the Divine, from which each sprang in the beginnings of that period of evolutionary time. But the evolving entities along those particular waves of life have grown. They have advanced; they are farther along the path than they were.

Evolution is not a mere mechanical process of putting brick upon brick, of stone to stone. No, that alone would be but a piling up of substances. The procedure of evolution includes that in degree, but more than anything else it is the building of a manifesting vehicle capable of expressing the innate powers of the spiritual monad. It is the unwrapping or unfolding of latent or dormant or sleeping powers. It is the building of living temples of self-expression which grow nobler with every step taken forwards.

As Oliver Wendell Holmes so nobly puts it in his poem, 'The Chambered Nautilus':

> Build thee more stately mansions, O my Soul!
> As the swift seasons roll.
> Leave thy low-vaulted past,
> Let each new temple, nobler than the last,
> Shut thee from heaven with a dome more vast
> Till thou at length art free,
> Leaving thine out-grown shell
> By life's unresting sea.

This word 'Monad' is no new term to the western world. It has been well known for ages. The Pythagoreans used it. Plato occasionally used it also, but he was a Pythagorean likewise in the substance of his teachings. Leibniz chose it as the term by which he designated his self-expressing centers of consciousness, mirrors of the Macrocosm. Giordano Bruno, the unfortunate martyr, likewise taught of Monads, for he was a Neo-Platonist of the later times. With him the Monads were the ultimate spiritual particles of all beings or things, each entity having a Monad at its heart or core, in other words being the offspring of that Monad, the Monad being its origin or source, and manifesting through the various veils of matter which enshrouded it, these veils being its vehicles of expression builded from itself, from its own substance.

Thus these various veils or vehicles through which the Monad expresses itself, whether it be on higher planes or lower planes, are themselves entities on the upward path as offsprings of the life-giving and originating Monad which they express, though of course inferior to it, their parent, inferior I mean in spiritual grandeur and evolutionary development.

Just as the mind of a man expresses itself through his physical brain, a part of his body, so do these various vehicles or veils express each according to its capacity the powers of the Monad which they enfold or inshrine. As the physical body is composed of cells, in their turn composed of atoms, in their turn composed of still smaller particles, so these other veils, inferior to the Monad, are themselves in their turn composed

of entities inferior to the veil of which they are the infinitesimals. Thus there is no particle in all space that is not a living being.

A god manifests through the spiritual part of man, through his spiritual soul, and this god, this spiritual entity, this Jîva, as we call it, to use the Sanskrit term, is the Monad. On its own plane it is a self-conscious god. Not Deity, but a god, a spiritual entity, a divinity as the ancients would have said, a spark of the Universal Life.

Next, the spiritual soul through which the Monad manifests in the human economy, is also a living entity, builded by the Monad; it is the child of the Monad, and is itself growing, destined in its turn to pursue nobler paths of evolutionary development, in time becoming a Monad in its turn: in other words, reaching that state of sublime capacity and power when all the barriers of matter have been surmounted, so that the inner spiritual sun may shine forth through it in full splendor and glory.

This spiritual soul, again, possessing and manifesting its divinity — the Monad — in its turn works similarly through another sheath inferior to it, through another soul which is another entity manifesting that spiritual soul, as the spiritual soul manifests the Monad. This child of the spiritual soul is the human soul.

The human soul likewise is an entity on its upward way, growing, which means expanding, overcoming the barriers or dissolving the veils, so that the sunlight from above may stream through the open doors of the Inner Temple at the heart of our being, and thus

manifest its transcendent powers and faculties. This process of self-expression and overcoming barriers is evolution.

The human soul in its turn is inshrined within another veil, a living entity still lower in the scale, but made necessary for the manifestation of the human soul by the more material world in which this still lower one, its vehicle, must work and function, if the human soul is to have communion with these stages of matter. This vehicle or sheath or veil, or soul — call it what you will — still lower than the human soul, is the vital-astral soul, or the animal soul. It is, in its turn, a growing thing, born from the human soul, its parent, learning its lessons by its links with the human soul above and its connexions with the more material world below.

This animal soul in its turn is inshrined in the vehicle or carrier or sheath or house or veil which it has builded for itself and from itself, by evolving forth or unwrapping or unfolding its inherent tendencies or urges or capacities or faculties, in other words its character; and this last house or veil of all is the physical temple, the physical body.

Thus the Monad or Jîva, the cosmic life-center, is in the highest reaches of itself, the Divine; and in its lowest reaches it is a body ultimately builded from its own substance.

The human body should be considered as a holy thing, because it inshrines a spiritual entity, which in its ultimate reaches is a god, a divinity, which nothing can pollute or stain, or hinder in its workings or turn

aside from its path of self-expression. Yet the physical vehicle can become so impure, the physical temple can be so soiled with stain, that it would seem to be meeter that it serve as a sty for swine than for the presence and dwelling of the inner splendor of the illuminating divinity within.

These are not poetical phrases. This is the teaching of the Ancient Wisdom, and are words to be taken literally — or rather the meaning is to be taken literally; perhaps not the words, because words are treacherous often on account of ambiguity.

This physical temple of the living god within is composed of still smaller entities called cells, these cells in their turn being builded of entities still more minute called atoms, in their turn composed of corpuscles or of entities still smaller, the electrons and the protons, etc., of the atoms. And as the Theosophist knows, and as is now suspected by the scientist, even these electrons are indeed composite things, builded of infinitesimal lives still smaller than the electron itself.

As every smallest atom or corpuscle of this vast organism of the Cosmos, the Universe, is the offspring of the Cosmos, its child and therefore a part of its own being, the ineluctable laws of reason and intuition tell us that every such atom or corpuscle must have in itself everything that the All contains — not in bulk, but in capacity of development, in potency, in faculty, sleeping or dormant, in possibility of realization, in principles. Consequently, as man is likewise an intrinsic part of this organism, an inseparable portion

thereof, no more able to free himself from it or wander away from it or separate himself from it, than he can annihilate himself, we see that in the human heart abide all the issues of life.

Therefore if you want to know what the Divine is, if you want to know something of the vastness of the fields of the spiritual spaces, then search earnestly within yourself; treading these fields of space in thought, you will find that you can reach no ending; and in thus entering within yourself, striving steadily forward into your own being inwards, you will have set your feet upon the still, ancient, small Path, which leads directly to the heart of the Universe.

This is the only pathway by which human consciousness may forever approach the Divine, without ever being able to reach it fully of course, and without ever being able to understand it in its infinite ranges. But there is an ever expanding and growing consciousness and comprehension of ever larger and larger fields of its action, and it is thus that the understanding of it grows ever more and more sublime.

I tell you emphatically that you can do it if you will: you can enter these sublime spaces of your own inner spiritual being, because every normal man and woman is intrinsically a pathway leading to the heart of the universe, from which flow out and forth all the forces governing the universe, and whose effects we are in the phenomenal appearances of that universe surrounding us — varied, manifold, multitudinous as they are.

When a man's heart and mind are penetrated with

the conception of the fundamental and perfect unity of all things in the vast organism of the Cosmos, then he will realize that this Cosmos is the field of Universal Life, of Universal Consciousness, manifesting in every smallest particle of space; and that it is also the field of an ineffable and boundless Love — assuredly not love as we weak human beings understand it, but that intrinsic character of the Inexpressible, whose nature and functions we can but vaguely conceive and hint at by our human word love. It manifests in the atom as attraction. It manifests in the cells and other smaller bodies as the force of coherence and cohesion. It manifests in the framework of the Cosmos as that marvelous power which holds the universe in union, all parts in mutual sympathy and harmony, each to each, each to all, all to each; in human beings as spiritual love, and in beings higher than the human as something so beautiful that our human minds can but feebly adumbrate it and call it self-sacrifice for others and for all.

These three: Life, Consciousness, and Love — which the Hindû expresses by his famous phrase, Sat, Chit, Ânanda — which in reality are but one, may give some idea at the present moment of the nature of the inexpressible, the all-encompassing divine origin, source, destiny, pathway and final aim of all beings, to which the Theosophist raises both heart and mind in deepest and wholly wordless reverence.

21. The Hierarchical Structure of the Universe

WHEN we say that the Divine towards which we raise our hearts in deepest reverence is impersonal, we do not mean that the Divine, which we recognise as containing the fundamental causal relations of the universe, whose phenomenal appearances surround us, is naught but an empty abstraction. No; we mean that it is the Universal Life, and that therefore it is impersonal, because personality of any kind is limitation; and the Divine being boundless is bounded by nothing, and limitations are but phenomenal appearances.

But does the Divine manifest immediately upon or rather in this universe? Is there no spacing between the Divine and matter? Do they conjoin immediately? These queries contain their own answers: Obviously not.

Does the Infinite attend to the affairs of the finite like a workman? Does the general of an army brush the shoes of every private in his army-corps, for instance, or cook every meal, and chew every mouthful of food which each private puts into his mouth? If so, then such a Deity is responsible for everything that happens in the universe because it is His own direct

doing; and the supposition, absurd as it is, likewise forbids the existence of free-will and self-initiative in any minutest degree in any entity.

Does the architect — to change our figure of speech a bit — after he has drawn the plans for some noble temple, some noble palace, himself go out and quarry the stone for it, and then cut and shape it, and then cement it into place? No, he provides the plan, the idea, the spirit, of the thing; and then passes it on to the workmen who immediately become busy with the plan and build therefrom. And it is the intermediate nature, both of the universe and of man, which is formed of these workmen, these builders, these transmitters of the divine idea; and as these builders are all as yet but learning entities, their work is characterized by imperfections.

Nature proclaims on every hand here on earth and in the spaces above and in our own nature within us, that imperfection is the rule and that the action of multitudinous, free, but still imperfect wills is the cause of the contrarieties and differences which we see about us. We see imperfection surrounding us everywhere, imperfection in many degrees, and human nature manifests it as much as anything else. Nothing is perfect in this lower universe of limitations, which is, so to say, the garment of Divine Perfection, to use an old figure of speech. But it is through and by these limitations that we learn, because these limitations arise out of the imperfect nature of the beings surrounding us — beings like ourselves living and learning and advancing ever forwards towards that sublime goal which

recedes into greater distances the nearer we seem to approach to it, paradoxical as the figure of speech may be.

We are indeed learning creatures, living for the present in our intermediate natures, in what we call our human soul which is that intermediate nature, and thus linked to the spirit above and within us, which is the divine spark which we essentially are; and this human soul is again linked to and in the body which each one of us has, manifesting through it, and thus expressing itself on this plane and learning its lessons here.

The spirit within or rather above man, his essential Self, as already explained, does not act immediately upon the body. There must be an intermediate, psychological apparatus in order to transmit and transform the forces flowing from that spirit, to 'step them down' so to say, or to 'step them up' if the current be running upwards.

Spirit can no more manifest directly upon matter and move it — although spirit and matter are in essence one — than, let us say, electricity can manifest immediately in and drive an electric car along the road without the proper mechanical apparatus as intermediary. There must be a machine, fit for, built for, proportionate to, its work, and of such a nature that it can transmit the electric power and turn it into mechanical work. The analogy is perhaps somewhat crude, but it may give some inkling of the idea.

Similarly is it with the intermediate nature of man, between the spirit above and the vital-astral-physical

frame-work of this earthly body. Similarly is it as concerns the Divine and the physical or material universe surrounding us. There must be intermediate stages or grades or steps of more or less ethereal substances between these, furnishing the links between them.

The Divine in its essence is transcendent and above the material universe, even as the spirit of man is transcendent in him, or above his intermediate and vital-astral-physical nature, and the forces flowing from our spiritual nature are transmitted to us more or less imperfectly, according to the degree of evolution that has been attained by the intermediate nature of which I have spoken, the human soul.

It is the teaching of Theosophy that between the Divine and the phenomenal universe which we sense with our physical apparatus of understanding there is a vast congeries or collection or aggregate of hierarchies, in their turn composed of steps or degrees, or scales, or stages, of beings and things, interlocking and interconnecting, without disjunction, without separation, irrefragably bound together, indivisible, inseparable. How could it be otherwise? Is any man insane enough to suppose that something can be separate from the All, from the Infinite, and find a spot somewhere outside of infinity, outside of everything, where pure 'nothing' is?

These hierarchies are not merely infilled with living entities, but are themselves composed of these living entities. Without them they would not be; because these living entities are they.

Now the modern theory of the cosmos, as outlined more particularly in astronomical science, gives us a good picture of the hierarchical structure of the cosmos from the standpoint of the physical plane. Our universe (that is the space comprised within the encircling zone of the Milky Way) is not the only universe. There are myriads of other universes, similar in physical nature to our own, existing outside the bounds of the Milky Way. Each one of such universes we may call a cosmic molecule composed of the various solar systems which we may call cosmic atoms; while the planets which revolve around any central solar luminary are like cosmic electrons. Our earth is one of such cosmic electrons, so far as our own solar system is concerned. It is an atomic planet forming part of the aggregate of our solar system, which in its turn is one of the atoms of our own universe — a cosmic molecule.

The greater universe is thus a vast organism, a living entity, a quasi-infinitude of worlds, which together form the cosmic atoms, or the cosmic molecules if you will, of some vast entity surpassing human imagination. And just as in man the atoms which form his body are ensouled by the man himself and yet themselves are living entities, possessing in the minute all that man possesses, so the cosmic atoms and cosmic molecules — the 'Island-Universes' which bestrew space — are ensouled by the life of the vast super-galactic entity, and yet are themselves living beings.

As music is perhaps the most spiritual of the arts, so astronomy doubtless may be called the most spiritual

of the physical sciences; because, among other things, it deals with vast celestial spaces — not merely with spaces as these are conceived of in the sense of the mere extension of matter, but spaces which hint at and in some measure portray the vaster spaces of the inner worlds wherein the hierarchies of living beings are chiefly active.

The mind of man is elevated by such a study. He comes by analogy and suggestion into closer relationship with the spirit within himself, which likewise inhabits these wide spaces of the inner world, for indeed each spirit is a spark of the Divine Fire.

The physical body of the universe is but the united manifestation and effect of these hierarchies of invisible beings as we sense them in their work; and so in turn man's body is representative of such a hierarchy, composed of the multitudes of little lives which form that body. Subtract those little lives from that body, and what remains? There is no body. It is these little lives which are the body, which manifest the man; and he is the over-soul of these hosts of infinitesimals which form his vehicles or bodies, outer and inner. He in his higher self is also their divine inspiritor, invigorator, and vitalizer. The rule of unity is universal.

It is along any hierarchy, great or small as the case may be, in all its steps or grades or stages that are transmitted the spiritual and divine powers flowing from within, which hold any universe in their grip, which govern its actions, which motivate its procedures, which actually form it, and which make it

what it is; and each such hierarchy is the manifestation of an individuality, of the Hierarch, the supernal entity at the head of any such scale or ladder of life or of being.

But is this Hierarch 'God'? If so, then there are many Gods, as the ancients truly said; because such hierarchies are numberless, as is obvious; interlocking, interwoven, interacting, and forming the vast fabric and web of life, which in its aggregate is the Universal Cosmos surrounding us, of which we have but vague and indistinct glimpses, such as our physical senses can give to us, and such as our far nobler apparatus of mind and heart and soul interpret, and interpret more or less correctly in accordance as this apparatus is more or less illumined from above by the spirit within, our inner Sun of consciousness.

I have sometimes been asked: Is there nothing in the Christian religion resembling this theory of hierarchies? My invariable answer has been: Most decidedly there is. In fact, such a teaching is the very background of the Christian theological scheme, although today it has been largely abandoned; and thereby have the believers and promulgators of that particular system of religious thinking thrown away the very heart of their own religion.

About the fifth century of the Christian era there appeared in the Mediterranean world, a series of three or four extremely interesting books which passed under the name of Dionysius the Areopagite. These were acclaimed as having been written by that particular legendary individual of whom the Christian New Tes-

tament speaks as being a member of the Council of Mars' Hill or of the Areopagus in Athens, and who was, so the legend in the New Testament runs, converted by the preaching of Paul at the time when he preached as alleged on Mars' Hill, or the Areopagus.

It is unquestionable, however, that these writings are four or five hundred years later than the particular individual alluded to in the New Testament as above described, and there called Dionysius; therefore the actual writer of these particular mystical Christian books has in recent times been called the pseudo-Dionysius, for he was a writer whose identity is totally unknown, and who passed off his work as having been the work of the Dionysius mentioned in the New Testament, and whom the Christians called the first Christian Bishop of Athens.

Now a careful scrutiny of these Dionysian works shows first that they were taken almost wholly in system and in structural form, from neo-Platonic teachings, in other words from what the Christians call 'Pagan' teachings, and also that they contain certain allusions to some of the doctrines which belonged to the ancient Greek Mysteries.

These Dionysian works both in form and in words are expressed in the Christian vocabulary and religious thought of about the fourth or fifth centuries after the beginning of the so-called Christian era. Obviously, then, these books represent an attempt to import into the Christian religion of that time some of the mystical heart of the Pagan philosophical doctrines and of the mystical spirit which gave the neo-Platonic

teachings such immense vogue in the ancient nations surrounding the Mediterranean Sea. Included likewise in these teachings is a great deal of the neo-Pythagorean thought.

My point in alluding to these facts is this: these teachings were taken over wholly by the Christian church, and became essentially a part of the dogmatic structure of Christian theology for centuries afterwards, in other words, became fully orthodox; yet alas, the key to their origin and the real meaning which they had in the non-Christian systems from which they were taken, was lost. The mystical scheme remained, the philosophical system remained, somewhat of the religious spirit remained, the framework or house containing the thought remained; but the God which had dwelt in that mystical framework of thought had long since departed. The form remained, but the spirit or real meaning was gone.

In perhaps the most important one of these books, called 'Concerning the Celestial Hierarchy,' this pseudo-Dionysian writer teaches that Deity works through the intermediary worlds composed of three triads, that is to say three groups of beings, which are intermediate between nature and man on the lower side, and the Deity on the superior side.

These three triads therefore form nine steps or stages or degrees in all, which the pseudo-Dionysius names as follows, beginning with the highest and ending with the lowest of the nine: the Seraphim, the Cherubim, the Thrones: first triad and the highest; Dominions, Virtues, Powers: second triad and inter-

mediate, interpreting and 'stepping down' the spiritual forces from the first triad, as that first triad was the interpreter, so to say, the passer, of the forces flowing from the Divine Heart. Then came the third and lowest triad, composed of Principalities, Archangels, Angels. Beneath these last were the physical universe and man.

This is a wholesale importation into the new faith from the original Theosophy which had degenerated into the various religions surrounding the Mediterranean Sea, and, as doctrines, were contained in the various religious beliefs of those peoples. It was a wholesale taking over of that part of the mystical thought of the ancient philosophy, and the expressing of it in new terms familiar to the new faith, as evidenced by the use of the words that Paul employed; for Paul of the Christians, when writing in the New Testament, speaks of the Principalities, and Thrones, and Powers, and Archangels, and Angels, and what not else.

One of the great difficulties that the promulgators of the new religion had in making some headway in the beginning for their particular brand of religion was this: they had to meet the objections of the trained minds and the alert consciousnesses of the non-Christian men, many of them extremely learned, who lived contemporaneously; and one of the first questions that these ancient philosophers asked the protagonists, the promulgators, of the new faith was this: You say that God created the world in six days, and rested on the seventh day, and that this creation included the origin

of man. Did your God do this? Is your God perfect, eternal, infinite in power, as you say? Then we ask you: Can Infinity 'create' anything but an infinite work, and can an infinite work be created and thus have a beginning? Can Perfection produce an imperfect work? Does the Universal Life meddle with the details of the physical universe surrounding us, except in the general sense of the impersonal action of universal powers?

To this perfectly reasonable and logical objection no answer could be given, because the definite teaching of this new religious belief, as taken over from the Hebrew Old Testament, was that God had created the world in six days and rested on the seventh day, and that he is a 'He' and lives in a particular part of supernal space which is called heaven — ideas, all of them, which are expressed in terms of limitation and bounds.

This was quite in line with the Hebraic ideas concerning Jehovah of the Jewish Bible, who smelled sweet savors and waxed wroth, and whose nature was moved in quite a human fashion by various human occurrences; anger and love and preferences and hatred are things which are utterly impredicable of the Divine.

It was also quite in line with the old theories as held by the populace as regarded Zeus of the Greeks, or Jupiter of the Romans, as expressed in the popular mythology of those peoples; but this popular mythology never was believed in literally by the philosophers and wise men of antiquity.

Now the Theosophist says that all such expressions

are symbolic, and should be so understood, and this conception of the meaning of the literal teachings of the old religions was that held by all thinking men of ancient times. The wise men of ancient times turned with disgust from all such figurative expressions limiting the Divine. It was not the figurative expressions themselves that they so much objected to, because these were definitely understood to be symbolic, but it was the danger that these figurative expressions would be received by the unthinking masses as expressing divine realities.

Nay, said they, between the Inexpressible and the expressible, between the Illimitable and the limited, between the Boundless and the bounded, between the Incomprehensible to man and the comprehensible to him, there is a scale of life endless in all directions, so to say, without width as it is without length, which ranges neither up nor down, nor to the right nor to the left, nor forwards nor backwards, nor within nor without, but *is*, and is everywhere; and it is symbolically called a 'ladder' or a 'scale' only because human words lack with which the human consciousness may express even in some degree its intuition of the Inexpressible, and therefore it has to be expressed in figures or metaphors; yet indeed the human spirit may have some conception of the Divine in proportion as that human spirit is enabled through inner visioning to transmit supernal glory and illumination to the intermediate nature, to the human mind or soul, which then can in some degree at least figurate it in symbolic words.

Now this universe, being an organism, being held together by irrefragable bonds of destiny, by unbreakable links of life, is, as we have said, infilled with all the potencies and capacities of the Divine; but these potencies and capacities are not necessarily manifest, are of necessity unmanifest in their higher and larger reaches; for the finite never can comprehend nor express the infinite; and as regards the universe everything that it contains is finite and therefore is incapable of fully expressing all that the infinite is, yet containing everything in germ that is inherent in the infinite itself. But relative parts, so to say, appropriate forces and energies flowing from the heart of Being, infill every smaller or inferior entity or being, and drive it on by inward urge, give it birth, and will direct it and lead it on to the ultimate destiny which lies before each such smaller or inferior being or entity.

Whence, indeed, come the worlds which bestrew the spaces of heaven? Whence came Man? From within. They come forth from the invisible outwards into the visible, expressing the forces which they imbody, and which send them forth on their various and respective works and destinies. And remember that it is *spiritual beings* who, by and through one side of their nature, which by analogy we may call the vegetative side, provide these various forces which play through the phenomenal seeming of the universe around us. Yes, all the forces which appear in Nature spring from them, for in one sense we may say that not only do the forces spring from them, but that they are ultimately those forces themselves. For what are they? Are they sepa-

rate from the universe which they inform? Are they different from it? Are they something else, something apart? No, in no case whatsoever. It is these spiritual beings who ensoul the cosmos, the universe. It is they who are the inner worlds, actually composing those inner worlds in their vegetative aspects, for these inner worlds are their inner vehicles for self-expression, even as man, the true man, the inner man, ensouls his body, his physical encasement, as well as his inner bodies.

Worlds as well as men are built on inferiors, yet each one of these inferiors is not absolutely but relatively so. Each is in itself a learning entity, forming a part of the vehicle in which a living being manifests and which is in the process of building — for what? For becoming a fitter and nobler vehicle for self-expression, for the expression of the spiritual self in the inmost of its nature.

Every world that comes into being is a living thing according to the ancient philosophies. Do you know that among the ancients the worlds were called 'animals'? What did they mean by calling the worlds 'animals'? They meant that everything is alive or has an 'anima,' as it is in the Latin tongue — a 'vital soul,' expressing what it can express, according to its degree of development, of the inner and inspiring spirit. We are at once the children of this earth, our planet Terra, which is an 'animal' or living being in that ancient sense, and likewise are we offsprings of the Divine. Every world is the parent of many things, because itself is composite, and being a composite thing has roots of

differentiation which this composition merely manifests, and these roots of differentiation of necessity follow out in various things and entities the inherent urge for self-expression.

The worlds and we sprang from the Heart of Being; and we, in the inmost of the Inmost of our nature, in the deepest depths of our natures, are that Heart of the Universe. In it are all things, all mysteries and the solutions of all mysteries, wisdom ineffable, knowledge unspeakable, because it is the eternal Universal Life, endless, boundless, unlimited, inexpressible, unknowable truly, because the more we know the more we know there is yet to know. An ultimate we may never reach. Always are there veils to pass behind into the greater splendors. "Out of the Heart of the Universe come the Sparks of Eternity"; and out of these Sparks of Eternity come men.

What governs the coming forth into visibility of these worlds and of man; what governs their retreat or withdrawal again into the darkness when their courses have been run — darkness to us, but the light to them. (This retreat or withdrawal in the case of our human encasements, men call death.) What governs these various processes, I say? Chance? Fortuity? Helter-skelter action?

The idea is truly an insane one, because all that we know, all that we see, all that we can study, proclaims what the philosopher and the scientist and the religionist respectively call Law, Order, Progression. Therefore whatever is, we must conclude, is produced by Law, by Order, by Progression.

These worlds, and man as well, are brought forth through the working of the Self in its various vehicles on the various planes or in the various spheres of the invisible universe. The Self manifests in all these planes or spheres, passing, during the cycle of its progress, from the highest of our hierarchy to the inferior stages or steps or degrees, then to the more inferior or lower, then to the most inferior or lowest, and in each along its own particular cycle. Then, when the depth of progression into matter has been reached, we foolish men of the Occident, knowing no better, call the effects that we sense and cognise the full splendor of material activity. Thus are we blinded by the mâyâ or illusion of things.

But when the cycle has run its course, when any cycle of any living entity during its evolutionary progress reaches its lowest point, then begins the ascent, a retrogression in the sense of a turning back and a retracing of the old footmarks with new steps. Nay: the other path is inwards and back to the source whence we and the worlds, our mothers, originally came, but both they and we improved, grown, evolved.

When we finally reach the ultimate destiny for that particular cycle of manifestation, which is our return to the source spoken of, then the worlds and we both rest, each according to the effects produced during that cycle of evolution. When we have rested, slept, if you like, then we begin anew another cycle of manifestation, we repeat what we did before, but on higher and nobler pathways, because we ourselves, and the worlds in which we live and of which we are the children, are then

higher and nobler and more evolved than before. There is a beautiful old mystical saying which says that the 'Sparks of Eternity,' the worlds, are scattered anew with lavish hand by the Universal Mother on the fields of space in order to run another course; but, as I have just said, in higher and nobler pathways than were the preceding.

The whole course of evolution consists in one procedure fundamentally, and that is the building of ever better, ever fitter vehicles of self-expression, fitter and ever more fit to manifest the inner light. That process of self-origination and self-building of fitter vehicles is the process we call evolution.

After all the building of vehicles is merely the effectual aspect. Evolution strictly in its etymological sense means the unfolding, the unwrapping, of potencies which have been infolded and inwrapped in previous cycles of being and which await the appropriate times and fields for their expression. Evolution thus is the unpacking of inner faculties and powers and forces, and the finding a field for their manifestation.

Our modern physical sciences know nothing of these inner and causal relations, but somewhat only of the physical phenomena of the universe surrounding us; and in view of the circumstances that exist what else can they know, or should we expect them to know? What other pathway to truth have they than that of experimentation and patient research and waiting? These are good in their way, very good; but our scientists have lost two extremely important keys which the old wisdom always taught to its students. These two

keys are: Look within, disciple, if thou wilt know the truth, for thou art the only pathway to that truth. They know nothing of the wonders within man, nor of the mysteries behind the veil of the outer seeming of the phenomenal universe. This is the first key that they have lost.

The second key is equally important and its application follows upon the use of this first key. It is the consciousness and therefore the recognition that the universe is not merely an ensouled organism, but that this world of the outer seeming is the garment of reality and that all things have their origin in invisible space and proceed from that invisible space, in individual cyclic journeyings for self-development, outwards into the visible, finally to return into the worlds within, but as grander and nobler entities than they were before. And further that this cycling is carried on by means of a hierarchical unfolding of a series of vehicles on each and all the planes of being, each vehicle itself a living entity capable of expressing the powers and faculties of the Hierarch which emanated it forth.

Think of the Infinite around us, filled with its hosts of hierarchies; the infinite spaces in the large, and the infinitesimal spaces in the small! If a man's mind, if his soul, if his spirit, be not raised in reverence to some understanding at least of the great principles that lie in the background of the Universal Life, he indeed must have a soul that is dead.

An old and very wise axiom of the Qabbâlâh, the Theosophy of the Jews, says: "Student, open wide thine eyes upon the visible, for in it thou shalt see the

invisible." Yes, we should indeed so see the invisible had we only developed the inner eyes enabling us to see it; and this we can do. For this faculty of seeing, this power of vision, comes from within, from a union of the inner part of the human constitution with its Root, the Divinity lying at the heart of things; which heart is the All if reduced to principles by rigorous analysis.

Every normal man and woman, as I have said before, is a pathway leading to the Divine, the only pathway that there is for each incarnate spirit to follow, its only pathway to utter truth. What we receive from others may be helpful or indeed unhelpful, depending upon the way in which we take it and our understanding of what we take; but if we desire truth and truth alone, if we would see reality and reality alone, if we wish to know ourselves and the wondrous mysteries within us rather than the phenomena only which surround us in the outward world, then we must follow that Still Small Path, of which the Hindû Upanishads speak, which leads inwards and onwards and upwards forever.

Thoughts such as these bring into the human spirit a sense of the marvelous power of our understanding when properly directed and used. Human dignity takes on new and worthier aspects. We grow too great for mean and paltry things; for we recognise instinctively the working of the god inshrined in the core of our being — the Awakened Monad, the Living Christos within, as the modern Christian might say; the awakened Buddha as the Buddhist might say; Îśvara as the Hindû puts it, 'in the seven-gated temple of

Brahmâ,' to follow his own beautiful phraseology. Whatever the terms in which we express this sublime truth, the conception is the same.

But while this conception gives us true intellectual and spiritual dignity, while it raises our spirit in contemplation of the vastness and the wonders of the Cosmos that surrounds us, it likewise teaches us modesty. We grow less critical of our fellow-men and of their mistakes; we grow kindlier and more charitable.

Our hearts warm with the understanding that all men — indeed all things, the vast hierarchy of our Cosmos — are fundamentally one, linked together for divine purposes; not the purposes of a personal God, but the purposes of the infinite divinity in the hearts of all beings; a principle of consciousness too great to be personal, in its fulness incomprehensible to us, vast even beyond our imagination, and yet being that which, as the Christian apostle Paul said, is "that in which we live, and move, and have our being."

APPENDIX

Evolution and Modern Research

The Pineal and Pituitary Glands

(Supplementary to Chapter 16)

Evolution and Modern Research

1. Dr. Robert Broom

Generalizing the main objections that the Theosophist has to scientific ideas, both of former times and of our own period, it may be said when the day comes when modern biology and its collateral branches of scientific research and thought shall admit the existence within the individuals of the different groups of evolving entities which inhabit the earth, of a spiritual monad for each individual, expressing itself in the lower kingdoms through an astral vehicle, and in the higher kingdoms in a psycho-mental-astral vehicle — when this shall be admitted or commonly recognised by scientific thought, the Theosophist will then feel that science has become *de facto* his most powerful ally.

Signs of such a welcome event in the history of scientific thought are already discernible in many places around us. Dr. Robert Broom, President of the South African Association for the Advancement of Science, and eminent in his field as an anthropologist and in kindred lines of research, has very recently boldly and openly declared his belief in a spiritual power or governance behind the phenomena of the evolution of evolving beings. This is immensely commendable and sets an example of scientific courage which may stimulate similar statements from other scientific men, who themselves doubtless feel in their inner consciousness

that it is only by means of some such spiritual directing power in evolution that beings can progress from the less to the greater, from the imperfect to the more perfect.

Even as early as 1933, Dr. Broom voiced this idea of spiritual agencies behind the phenomenal world in his Presidential Address before the South African Association for the Advancement of Science, July 3 of that year. In his closing paragraphs he said:

"The origin of species and of much of evolution appears to be due to some organising and partly intelligent spiritual agency associated with the animal or plant, which controls its life processes and tends to keep the being more or less adapted to its environment. But in addition to this there seem to be other spiritual agencies of a much higher type which have been responsible for what may be called greater evolution — the evolution of vertebrates, the steady advance from fishes to amphibians, to mammals and ultimately to man. These spiritual agencies appear to have worked by directing from time to time the inferior agencies which are associated with the animals and plants. . . .

"And the strange course of the history of life on the earth appears to admit of but one explanation — that it has been brought about by spiritual agencies and that the production of man has been the chief purpose of it all. Though man as we see him to-day may be regarded as a very disappointing result of all these millions of years of evolution, we must not consider human evolution as quite finished. Physically man may change very little in the next 10,000,000 years, but mentally and morally it seems possible he may evolve almost into a new being.

"Perhaps the end of it all is the production of spiritual personalities of types far beyond any with which we are

acquainted and for purposes in the universe of which we cannot even dream."

Since 1933, Dr. Broom, working on the problem of the mystery of man's inner being, has declared his belief in not only one soul in man but two. Writing in the *Johannesburg Star* for January 11, 1938, he says:

"I ventured to reply to one critic that not only have animals and plants souls, but that there was much reason for considering that man has two souls — a conscious soul and an unconscious."

He then proceeds to state his views at greater length:

"If we assume as a possible theory that in addition to the ego in man there is another spiritual entity, which has probably been responsible for the development of the ego, we have at once an explanation of many things that are otherwise quite mysterious. This spiritual entity must be assumed to have had a previous existence and to have had experience. It would also seem to have some contact with other spiritual powers.

"Let us take one case. No satisfactory scientific explanation has ever been given of the aesthetic sense — the appreciation of beauty, the awe of the sublime, and the love of justice. . . .

"If we assume, as I am suggesting, that while the Ego is a new creation, the Psyche had a previous existence, and still retains memories of the beauties of the spirit world, we have a clue to much that is otherwise mysterious. The Ego is sufficiently in touch with Psyche to thrill in sympathy."

Quite aside from his rather misleading use of philosophic terms, from our standpoint, Dr. Broom's suggestion of an egoic center in man which tends to crowd out the other "important associated spiritual being," is the conception of all ancient philosophers, who taught of a superior being in

man whose real dwelling place was among the gods, but which formed a personality for itself periodically for life-experience on earth.

Another significant statement by Dr. Broom, which indicates how scientists are turning away from the mechanistic view, is as follows:

"There are no doubt many who hold that there is no spiritual part in man — that life is simply a resultant of the chemical activity of organic matter and that mind is a sort of secretion of the brain cells as bile is of the liver cells. As a vitalist I am in quite a different camp from these, and do not at present wish to argue this question. When the British Association was in Capetown in 1929 the question of life was discussed by ten leading scientists and philosophers, and of these only one, Professor Hogben, supported the mechanistic view. . . . Millikan, the famous American physicist, regards the mechanistic view of life as bankrupt. Bishop Barnes, as great a scientist as he is a philosopher and theologian, says the answer to the question whether mind is, as it were, froth on the stream of physico-chemical change is certainly in the negative."

Dr. Broom's statements, quite apart from variations in phraseology, so closely approximate to fundamental Theosophical teachings that one can but applaud this eminent and courageous scientist for the example he has set to so many hundreds of his confrères less courageous and less enlightened — with apologies to them — than he is!

— G. DE P.

2. Dr. H. Fairfield Osborn and Dr. Richard B. Goldschmidt

In opposition to current mechanistic hypotheses of the process of the appearance of new species, the great American biologist, Dr. H. Fairfield Osborn, worked out a new method of regarding it — the process, not the *cause* — which is important because it approaches closely to the Theosophical teaching that evolution means the unfolding or unrolling into manifestation of what is already in embryo. In bringing forward his hypothesis, which he calls *Aristogenesis,* or the process of "absolutely inevitable and *predetermined* evolution, always tending toward improvement," he shows the inadequacy of the great historic attempts to explain the modes and causes of evolution which were founded on such concepts as, (a) spontaneous variations arising fortuitously (Darwin, etc.), (b) inheritance of acquired characters (Lamarck), (c) environment (Buffon, St. Hilaire).

Dr. Osborn of course accepted the fact (recognised by H. P. Blavatsky) that the 'survival of the fittest' and 'the direct effect of environment' had *some* influence on biological evolution, but he insists that "the real underlying causes of evolution are entirely unknown . . . , and may prove to be unknowable," and "Pure Darwinism never sought to explain the *origin* of new characters. In fact, Darwin invariably used the word 'chance' but open-mindedly declared that 'chance' was a word that might simply express the ignorance of his time as to principles which might subse-

quently be discovered," and while modern observations undreamt of by Darwin have, according to Dr. Osborn, brought new facts to light they have in no way diminished the fact that the *cause* of variation is still totally unexplained by and unknown to scientists. Accepting this fully, he shows good reason for believing that the cause, whatever it may be, is connected with the germ plasm. He finds that the unfolding of the potentialities locked up in this mysterious 'cause' are released in orderly response to the challenge of environment. They are not survivals from innumerable *accidental* mutations which happened to persist because they fitted into the environment. In the great families of mammalia, for instance, the earliest representatives possess the potentialities of the variations which gradually appear and finally segregate their descendants into genera or species. Dr. Osborn made intensive studies of the mammalia to establish this "*Creative* Aristogenesis," especially in the Proboscideans or elephant family throughout its 14,000,000 years of existence, and found, "absolutely concrete and irrefutable evidence of the actual modes of the origin of new characters in species, genera, and higher divisions." It is, as he writes, "fatal to Darwin's working hypothesis of adaptation of survival of variations in any degree subject to chance."

In the teaching of Theosophy, however, the cause of the appearance of the great mammalian types (the larger "root-types" of *The Secret Doctrine*) is the existence and influence of prototypes on inner planes of life, which become physicalized, as it were, and activate the original germ plasms. After this, the physical forms differentiate within certain limits (as in the teeth, etc., of the Proboscideans) by the ordinary secondary, physical causes such as climate, isolation, sex, diet, etc. Underlying all this, however, as

H. P. Blavatsky writes in *The Secret Doctrine,* II, 649,

> is a sub-conscious intelligence pervading matter, ultimately traceable to a REFLECTION of the Divine and Dhyan-Chohanic wisdom.

This is what has sometimes been called 'the mystical dweller within the germ cell' activating the *nucleolus.*

The quotations from Dr. Osborn are taken from his articles in *Science* for December 2, 1932, and February 24, 1933, which are worth careful study.

Dr. Richard B. Goldschmidt, now professor of Zoology at the University of California, one of the world's leading biologists, has also broken with the pure Darwinian tradition and has unwittingly moved toward one of the most important teachings of the Ancient Wisdom about the appearance of new forms of life. Darwin required innumerable fortuitous variations and aeons of time for the laborious process of working out a new species by 'natural selection,' but Dr. Goldschmidt discards this principle and offers an impressive array of evidence in favor of rapid mutation in the embryo by which new species would emerge quickly, geologically speaking. In some cases two or more drastic changes would occur at the same time, in others the speed of inter-embryonic development of one or more normal characters would be reduced or increased allowing others to get ahead and dominate, etc. As he points out, such mutations, rare as they may be, might be fraught with tremendous results. They would satisfactorily explain the mechanism of the appearance of the air-breathing Amphibians from certain fishes. To produce such a revolutionary change by the extremely slow process of natural selection working on an occasional 'accidental' variation would be, as Dr. Goldschmidt says, incredible, because no intermediate steps are possible and more than one mutation had to take place

simultaneously to adapt the fish to terrestrial conditions.

But the mechanism of the transformations (if correctly interpreted by Dr. Goldschmidt) is far from explaining the deeper cause of the simultaneous and other mutations which produce such (literally) epoch-making consequences, for we must remember that the Amphibians led the way to the Reptiles and the Mammals! Was all this the result of a rare and accidental combination of chromosomes in the embryonic cells of some fish? One of Dr. Goldschmidt's critics, while admiring the austere simplicity of his interpretation of the evidence evidently fears that it is dangerous because it may lead to a teleological explanation, and so he calls it "the simplicity of a belief in miracles"! But why should the teleological explanation be so terrible? Theosophists do not think it is at all subversive to reason.

According to the Ancient Wisdom such fundamental changes are not produced by fortuitous happenings, but have a lawful place in the great scheme, and are traceable to Divine or Cosmic Intelligences as mentioned above. Physical matter is only a small part of the real universe. According to Theosophy the 'astral' or ideal forms or 'germs' of the new orders of life, were 'projected' from inner planes of being into the terrestrial world when the conditions were suitable. These subtil elements forced the mutations in the embryo which provided the mechanism by which the more advanced type was able to incarnate, apparently 'out of the blue.' H. P. Blavatsky explains that when this is done innumerable minor modifications follow by the so-called 'natural' ways familiar to biologists. She writes:

Those purely *secondary* causes of differentiation, grouped under the head of sexual selection, natural selection, climate, isolation, etc., etc., mislead the Western Evolutionist and offer no real explanation whatever of the "whence" of the "ancestral types"

which served as the *starting point* for physical development. The truth is that the differentiating "causes" known to modern science only come into operation after the *physicalization of the primeval animal root-types out of the astral.*

— *The Secret Doctrine,* II, 648-9

Dr. Goldschmidt's hypothesis should be valuable as an open door for biologists to find their way to the teachings of the Ancient Wisdom on the real meaning of 'Evolution.' An article by him, setting forth the main points of his argument in technical terms will be found in *Science* for December 15, 1933.

— Republished from an article by C. J. RYAN in *The Theosophical Forum,* December, 1941.

The Pineal and Pituitary Glands

THE spiritual being that is the real man plays on the physical body as the master musician plays on a wondrous lute or harp. The strings of this instrument, this wondrously constructed physical frame, run from the coarsest catgut, which can produce coarse, heavy, sensual sounds, to the silver and gold, and finally to the intangible strings of the spirit; and the musician plays on these strings with masterly sweep of will when we allow it. Mostly we human beings refrain from playing on the nobler and higher strings, and play on the coarse catgut only.

As a matter of fact, this body of ours is one of the marvels of the universe. It is marvelously constructed. We human beings at present have no realization of what it contains, of its powers to be developed in the future as evolving time will bring them forth, but which we can hasten in their growth now. These powers of the human being function through the seven main centers of energies in the body: seven organs or glands, sometimes called chakras.* To enumerate these counting from the lowest up: the genital, the liver, the spleen, the cardiac, the brain as a whole, the pituitary gland and the pineal gland. There are others subordinate to these, but the above are the most important. And strangely enough, they are as it were paired: the heart

*In India these organs and their functions are referred to as chakras. Strictly speaking, the chakras are the astral organs or functions, and their specific allocations to physical organs are surrounded in exoteric literature with mystery and uncertainty. They have been known and studied, however, in certain occult schools since time immemorial.

and the brain; the pineal and the pituitary; the liver and spleen; and the pair of the lowest couple, as a matter of fact, is the solar plexus — but this is a story by itself.

Every one of these organs or glands has its own appropriate function, activity, purpose, and work in the human frame. By our will, by proper study, by living the life, we can make the higher, the incomparably more powerful ones within us, active far more than they now are active, and thus become gods among men. Most of us do not do that. We live in the world below the human diaphragm as it were. And yet, despite our worst efforts to kill the god within us, to destroy its holy work, the pineal gland and the pituitary gland, and the heart, continue functioning just the same. We are protected as it were against our own foolishness.

The lowest of these chakras can be made one of the noblest by changing its functional direction for creative spirituality. Waste brings loss; that particular organ in the human frame can be made the organ for the production of the mightiest and noblest works of genius. It has a spiritual as well as a physical side, as all these organs and glands have. But how many men remember the holiness of spiritual creation, so to say?

The liver is the seat of the personal man, the kâma-mânasic individual; and the spleen, the 'lieutenant' of the former, is the seat of the astral body, the linga-śarîra. Even at séances today — which I would not advise anyone to frequent unless he goes there knowing more than the average man does — it has been shown how the astral body of the medium oozes out, first as a slender thread, and then becomes, when the manifestation is *genuine,* what is now called 'ectoplasm,' really thickened astral stuff; and it is from the spleen that this astral body comes forth.

Then the heart, the organ of the god within us, of the

divine-spiritual: here in the physical heart considered now as a spiritual organ, and not merely as a vital pump, which it is also: here in the heart is the god within; not in person, but its ray touches the heart and fills it as it were with its auric presence — a holy of holies. Out of the heart come all the great issues of life. Here is where conscience abides, and love and peace and perfect self-confidence, and hope, and divine wisdom. Their seat is in the mystic heart of which the physical organ is the physical vital instrument.

The brain *as a whole* is the organ of the brain-mind, as a whole the field of activity of our ordinary reasoning, ratiocinative mentation by which we think ordinary and even higher thoughts, and by which also we go about our daily tasks. But connected with the brain are the two wonderful glands, the pineal and the pituitary, already mentioned. The pineal gland is as it were a casement opening out into infinite seas and horizons of light, for it is the organ that in us men receives the direct mâhatic ray, the ray direct from the cosmic intellect. It is the organ of inspiration, of intuition, of vision. The heart is higher, because it is the organ of the individual's spiritual nature, including the higher manas or spiritual intellect. When the heart inflames the pineal gland and sets it vibrating rapidly, then so strong is the inflow of spiritual force that the man experiencing this has his very body clothed in an aureole of glory; a nimbus is behind his head, for as the pineal gland vibrates rapidly the inner eye is opened and sees infinity; and the aureole or nimbus is the energic outflow from this activity of the pineal gland.

The pituitary gland is the lieutenant of the pineal. It is the organ of will and hence also of automatic growth. It is the organ of will and urge and growth and impulse; but when the pineal sets the pituitary vibrating in synchrony

with its own vibration, you have a god-man, for there is the intellect envisaging infinity. Then the divinity in the heart speaks and vibrates synchronously with the pineal gland, and the pituitary thus inspired to action of will, works through the other chakras or organs and makes all the man a harmony of higher energies — relatively godlike!

All great spiritual leaders and teachers the world over, the great men-gods of the human race, have told us how to increase the vibration of the pineal gland in the skull. The first rule is: Live as a true man. It is as simple as that. Do everything you have to do, and do it in accordance with your best. Your ideas of what is best will grow and improve, but begin. The next thing is to cultivate *specifically as units* the higher qualities in you which will make you superiorly human as contrasted with inferiorly human. Be just, be gentle, be forgiving, be compassionate and pitiful. Learn the wondrous beauty of self-sacrifice for others; there is something grandly heroic about it. Keep these things in your heart. Believe that you have intuition. Live in your higher being. Then when this can be kept up continuously so that it becomes your life, habitual to you, then the time approaches when you will become a man made perfect, a glorious Buddha. You will manifest the Immanent Christ within you, you will imbody it. — There is the spiritual physiology of the whole matter.

The pineal gland was in earliest mankind an exterior organ of physical vision, and of spiritual and psychic sight. But due to the evolutionary course that the human frame followed, as time passed on and our present two optics began to show themselves, the pineal gland or the 'Third Eye,' the 'Eye of Śiva,' the 'Eye of Dangma,' began to recede within the skull, which latter finally covered it with bone and hair. It then lost its function as an organ of *physical*

vision, but has never ceased to continue its functions even now as an organ of spiritual sight and insight. When a man has a 'hunch,' the pineal gland is commencing to vibrate gently. When a man has an intuition, or an inspiration, or a sudden flash of understanding, the pineal gland begins to vibrate still more strongly, albeit softly, gently. It functions still, and can be cultivated to function more, if we believe in ourselves and in our innate spiritual power.

As a matter of fact the pineal gland is connected with what will in time come to be our seventh sense. There are, according to the Ancient Wisdom, two more senses to be developed, making seven in all. It is a difficult thing to describe just what these senses will be, because as they are not yet existent and working in us and through us as manifested activities, we have no names for these virtually non-existent powers. The sixth sense might be described as psychic or psycho-spiritual sensitivity; just as touch is sensitivity of the skin. This psychic sensitivity does not mean knowing what everyone is thinking. It means impressionability, being subject to psychic impressions of many and various kinds, a sense therefore which can be very valuable, but likewise very treacherous and clothed with peril unless we be eternally on guard.

I think it is due to the infinite kindness of the gods above us that the sixth sense has not yet been developed. It is coming even now slowly into activity, very feebly as yet, but beginning to show itself; and this accounts for the large number of so-called psychics in the world, who are *as a rule*, because of the lack of common human moral development, unsteady people. Thus, if that sense were to come to us now in its fulness, it would be a gift like that given to Hercules. It might burn us to death like the robe of the centaur Nessus. We are not yet sufficiently

developed ethically to carry a sense like that with safety to us, to our sanity, to our health, and highest of all, to our duty to our fellow human beings.

The seventh sense I would call the development of interior, instant, spiritual cognition, intuition, as far as it can be developed in us human beings in this Round on this Globe. Its organ will be the 'Eye of Śiva,' the 'Third Eye,' more correctly called the 'First Eye,' because it preceded the other two, and should not be spoken of as though it came in as a lame and limping third. It is, as said, even today partially functional, but it has very hard going, mainly due to the work of the two eyes which overcame it. As time passes the two eyes will grow slowly more perfect in function, but will recede in importance; and the 'First Eye' will come again into its own. It did function in other Rounds, during the Third and even the Second, weakly during the First; because during the First Round the monads which we call egos now were then spiritual and semi-spiritual beings, as it were in a samâdhic condition on this plane, practically unconscious; but — strange paradox — because of the functioning of this direct consciousness from within in those earliest beings, they had thoughts which embraced infinitude, with scarcely any exterior consciousness of the outside world. This same condition of the First Round was repeated in the First Race of this Fourth Round.

It is this 'Eye of Śiva' which will function again one day as the organ of our seventh and highest sense. And when that time comes to pass it will unite in function with the heart; and when these two unite their fluids and energies, you have a perfected man.

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