A U M

Whether one sets out to the bloom of the east or to the chambers of the west, *without moving*, O holder of the bow, is the travelling in this road. In this path, to whatever place one would go, *that place* one's own self becomes. —DNYANESHVARI.

THEOSOPHY

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PAST, PRESENT, FUTURE

IT is now twenty-one years since the Founder of the United Lodge of Theosophists left the body, but his memory is as bright, his inspiration still quickening, as though it were but yesterday he lived among us. Theosophists who have come under his influence have learned to *stand on their own feet* as workers for Theosophy. For that *is* the influence of Robert Crosbie. What greater cause for gratitude could students have? He was no personal leader to lean upon and worship; one who leans will never stand alone, and that principle of occult education was well known to the founder of U. L. T.

All that has come from U. L. T. to the world, all that students have learned from the wise teaching of Theosophy, is the direct result of work initiated and inspired by Robert Crosbie. Thousands meet weekly to study together the Wisdom Religion; hundreds of thousands of books and pamphlets containing pure Theosophy have been circulated; many hundreds of children in all parts of the world are learning to meet life with principle, to fit themselves for the future when they shall have taken upon their shoulders the burden of carrying on the work. During the twenty-one years since his death, Robert Crosbie has continued to open the way to knowledge of Theosophy to others, through the efforts of those who have followed and are following the example of the "friendly philosopher."

Standing on this broad plateau of practical achievement, students may look back upon the past with the only worthy satisfaction—the satisfaction that is at once transformed into a mounting courage and confidence for the future. While there remain but thirty-five years until 1975, a period brief enough, these years are long with possibilities of good for even centuries to come. The Teachers must use the materials that humanity provides, and if in the next cycle there is a soil prepared by steady, unpretentious tillage, then the harvest will be glorious indeed!

The path into the future rises quickly above the horizons of immediate perception. These are days of uncertainty, of social upheaval and rapid change. Great opportunities may be hidden by mists soon to rise, or dire calamities impend. But wherever the future leads, the North Star of *Unity, Study* and *Work* will always shine upon Theosophists. They need never falter nor pause in their appointed task. If the work of the present is fulfilled, the future will mold itself. Every obstacle overcome today will open up a highway of tomorrow, just as the paved road we follow in 1940 is the trail first blazed in 1909, the well-worn path of 1919. This road must not become a jungle ruin, no *Via Appia* that mutely tells the curious antiquary of a skill forgotten and a way untrod. And it will not, if each generation of Theosophists will live again the past by giving to the present the same devotion. It was devotion that made a tiny meeting room, with kitchen table and chairs, grow into a Theosophy Hall, and spacious quarters for the work in many lands. Devotion turned the old, rare books into many more, enough for all. The present is what it is because of past love of humanity, because of wisdom gained from work done for humanity, and the undying resolve grown from both of these that the work shall go on. This is the power which keeps this whole great movement in being—its indivisible spirit which cannot die so long as there are hearts to give it embodiment.

Human beings *can* unite on the simple platform of similarity of aim, purpose, and teaching; they *can* work for the Great Cause in forgetfulness of all personal differences. These are now historically demonstrated truths of the Theosophical Movement. One need only attend a meeting of the United Lodge of Theosophists, study its history, and see its work, to know for himself. Imperfections will no doubt be discovered; the "perfect" theosophists are all busy with personal followings, of which none will be found in U. L. T.; but the undeviating study and promulgation of pure Theosophy go on despite all imperfections and human failings.

It is the practical recognition of these truths that theosophists everywhere owe to Robert Crosbie. Anyone can talk about philosophical principles, but he acted upon them. Robert Crosbie really *believed* in the divinity latent in every human being; he had the confidence that men will respond to a high ideal and the opportunity to forget their petty, personal ends in work for others. The Teachers said, "Do thus and so, if you would keep Theosophy alive in the world," and Robert Crosbie did not pretend to know a better way. He followed the lines laid down.

THE ASTRAL BODY

Historical Studies: VI

FROM the philosophical point of view, the primary problem of embryology is the issue between preformation and epigenesis. Almost until the nineteenth century it was widely believed that the germ, egg or seed contains a miniature model of the adult organism. This, the doctrine of preformation, is quite obviously a vestige of the occult teaching expressed in modern times by William Q. Judge: "The model for the growing child in the womb is the astral body already perfect in shape before the child is born."[1] Early European science, however, had materialized the idea, supposing the pattern of development to be *physically* present in the germ, so that, as methods of observation became more exact, the preformation theory was discarded. Its decline nevertheless occupied nearly two centuries, for biologists were reluctant to postulate the emergence of "something from nothing," which is the principle behind epigenesis. The first important observations in the line of modern scientific development were made early in the seventeenth century by Fabricius, who published a description of the stages of differentiation in a hen's egg until hatching. The famous William Harvey, a pupil of Fabricius, continued this research, arguing that the embryo arises as a gradual differentiation of unformed material of the egg. But not until von Baer's careful studies of embryological development in the higher animals were published in the thirties of the last century did the doctrine of preformation entirely succumb to epigenesis.[2]

The ghost of preformation, however, will not be laid. It haunts the theories of every biologist who rises above mere description. Preformation has a symbolic survival in the theory of gene configuration. The modern view is simply stated by Dr. L. L. Woodruff: "It took two centuries of research to reveal the fact that, below and beyond its superficial aspects, there is a germ of truth in the principle of preformation hidden in the nuclear architecture—that the origin of the individual, though obviously through epigenesis, is fundamentally from a sort of preformed basis."[3]

But this "primary preformation" in the nucleus cannot be responsible for the development of eggs which differentiate without

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[1] *The Ocean of Theosophy*, p. 40.

[2] See L. L. Woodruff, editor, *The Development of the Sciences* (New Haven: Yale University Press, 1923), pp. 244-7.

[3] L. L. Woodruff, *Foundations of Biology* (New York: Macmillan, 1936), pp. 265-6.

any nucleus at all! Dr. Harvey showed that the clear and structureless cytoplasm is "the material fundamental for development," at least in the early stages of the embryo.[4] Thus the modified preformation of modern genetic theory fails to explain the "brute facts" of embryology. In fact, so compelling of attention are the recent discoveries of embryology that today all science looks to the morphologist for a practical solution of the mysteries of form.

Within the past decade there has been an accumulation of remarkable facts about the processes of morphogenesis. Phrases like "electrical architect," "deathless engineer," "master-builder," and "sculptor of life" are now commonplaces in the scientific columns of the daily press. A number of biological laboratories are engaged in exact observation of embryonic development and related phenomena in various species of the lower animals, with results that are startling. There is, however, the important consideration that with some few exceptions vivisection has been the method of research. It is doubtless true that the small amphibians and chickens generally used in these experiments do not suffer as would dogs and other higher mammals, yet suffer they must, in their degree, and this interference with their natural existence, if productive of any knowledge at all, can contribute only to knowledge of the dark side of nature. It is highly significant that the thoughtful observations of Prof. Sinnott (See May issue, p. 295) are those of a plant physiologist, and not a vivisector of animals. Bearing these things in mind, we may see in recent findings of animal embryology the shadow of truths which might have been learned in their fulness through more natural means.

In 1935, Prof. Hans Spemann, of the University of Freiberg, Germany, received the Nobel Prize in physiology and medicine for his discovery of the "organizer" of living forms, the culmination of fifteen years of experimental research. The organizer is the principle or entity which, in the theories resulting from these experiments, transforms the undifferentiated protoplasm of the egg into a complex organism. In the early stages of the development of a fertilized egg cell, there is no evidence of any dominance of one part over another. The future embryo is only a mass of cells surrounding a central cavity. Prof. Spemann, however, learned that one particular region, the dorsal lip of the blastopore, determines the formation of the primary axis of development. He found that a fragment of tissue from this region, when transplanted to another

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[4] See No. V of this series, THEOSOPHY, May, 1940 (XXVIII, 300).

part of the original embryo, would grow into another one, causing a double embryo to form. The presence of this "organizer" or principle of form in a small bit of tissue, which has the power to grow an entire embryo, is the foundation of a long series of experiments.

If in a very young embryo of the triton, a piece of tissue that would normally form skin is transplanted to the brain region, it does not become skin but brain. The embryonic skin tissue, removed from the place where, under the influence of the mysterious "organizer," it would naturally become skin, docilely submits to the direction of the organizer in its new location and turns into brain matter! According to the press account of these experiments:

> There are several of what may be called assistant "master-builders" in various parts of the bodies of embryo animals, each one having charge of a specific organ at the early stages. The mode of action of the assistant organizers has been determined, as well as the places where they can be found; it is also fairly well established that they are chemical substances. But that does not tell the whole story of the mechanism of life's organization in the embryo, nor is it known what elements the chemical substances are made of and what their structure is.[5]

Dr. Oscar E. Schotté, of Amherst, building on the primary discovery of Dr. Spemann, has reported other experiments disclosing further wonders of the organizers. Spemann had shown that transplanted tissue would assume the character of its new environment—that potential skin would develop into brain stuff when grafted to the region dominated by the brain "organizer." Dr. Schotté, however, reversed this phenomenon—he transplanted a small area containing an organizer, and grew the organ it represented in a place far from where it would naturally develop. In this case the organizer in the transplanted tissue dominated the new environment instead of submitting to its influence. This was accomplished by planting a bit of eye tissue from a tadpole embryo in the regenerating tail of another tadpole. Only during the formative stage, while the new tail was growing, would the rapidly proliferating cells be guided by the "eye organizer" or "seed," which was a little sack of protoplasm taken from the part of a frog's egg that would eventually grow into an eye. Dr. Schotté described the process as follows:

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[5] New York *Times*, Sept. 10, 1936. (According to Dr. Oscar Schotté, the organizers appear to be chemically one of the sterols or higher alcohols, similar in nature to the basic substance of hormones, vitamins, the bile acids and certain cancer-producing compounds —all of which, the theosophist may suggest, are probably gross forms of astral matter. New York *Herald Tribune*, April 27, 1937.)

> If an organizer such as the eye cup be implanted into these shifting masses of cells, an eye field is organized which spreads the material. By some unknown process the eye field must exert its influence beyond its proper limits and the materials constituting the borders of that eye field in turn become organizers for far more remote regions such as an ear, a nose, a mouth . . . the transplanted eye cup induces an "eye field" which, with time spreads and becomes an "upper head field," thereby inducing the formation of an ear vesicle. These diverse fields complete each other and eventually a "lower head field" is created.[6]

Thus, from a fragment of embryo, practically a whole head was grown on the regenerating tail of the tadpole. Dr. Schotté concludes that "every cell possesses potentially everything to produce any type of tissue or organ." Similar experiments performed by Prof. Nelson T. Spratt, Jr., zoologist at the University of Rochester, revealed that tiny bits of tissue from the forebrain and eye region of chick embryos would develop into primitive eyes and parts of the forebrain if nourished by blood clots. He observed: "Development of the forebrain and eyes seems to be the expression of an already existing but invisible structural organization."[7]

William Q. Judge wrote in 1893: "The ethereal design body will explain how the form grows into shape, how the eyes push themselves out from within to the surface of the face, and many other mysterious matters in embryology which are passed over by medical men with a description but no explanation."[8] There are, of course, many differences between the astral body of a human being and that of lower animals such as frogs and chickens. The psychic and astral individuality of these creatures is but primitively defined: "The ocean (of matter) does not divide into its potential and constituent drops until the sweep of the life-impulse reaches the evolutionary stage of manbirth."[9] These biological experiments suggest that the natural tendency of matter to run to forms is only partially integrated by the master-pattern of the whole organism, and that interference with natural development becomes the cause for the monster-like phenomena now being produced in the laboratory. But there are cases where even the astral form of human beings may become subject to strange modifications during gestation. Only after the maturity of the child before birth is this form "fixed, coherent and lasting."[10] The tragic cases of circus "freaks," Siamese twins,

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[6] New York *Herald Tribune*, April 27, 1937. [7] *Newsweek*, Jan. 9, 1939.
[8] *The Ocean of Theosophy*, p. 40. [9] *The Secret Doctrine* I, 178.
[10] THEOSOPHY I, 189. See also "The Mystery of Regeneration," THEOSOPHY XXV, 508.

and other "sports" of nature in the human kingdom illustrate the plasticity of the astral body during embryonic development.

Dr. Ross G. Harrison, of Yale, inventor of the method of "tissue culture" by which Dr. Carrel has kept a chicken heart alive for many years, and one of the world's outstanding authorities in morphological research, has discovered the importance of the time factor in the work of the organizers. Just as with human development, in which a point is reached when the astral form is no longer subject to malformation or modification through the power of the imagination, so there is a similar cycle for the lowly salamander and its organizing centers of form. Dr. Harrison found that the bit of embryonic tissue containing the eye organizer would not manifest its power when transplanted at a very early stage, but would turn into normal belly tissue if grafted in that area. The same experiment, repeated later in the cycle of embryonic development, resulted in the growth of an eye on the belly of the host embryo.[11] Another experiment by Dr. Schotté shows that the process of regeneration of a lost limb or tail reproduces the sensitivity of embryonic development. A portion of the rapidly proliferating tissue in the regenerating tail of an amphibian was placed in the eye of a frog larva from which the lens had been removed. The result is described by Dr. Harrison: "Already 'determined' to form cartilage, bone and muscle in a certain definite configuration, this tissue, nevertheless, under the new and radically different conditions obtaining in the eye chamber, forms a crystalline lens, a structure heretofore unknown to develop either directly or indirectly only out of ectodermal epithelium."[12]

It is evident that these experiments are pitting the formative power of one group of organic "builders" against that of another, inducing a sort of "civil war" of organs within the whole, the victor being the organizer which has had the best start in the "biologic time" of its cycle of differentiation. The nature of the forces which are engaged in these intra-organic struggles is further revealed by the research of Prof. Elmer G. Butler, of Princeton University. He reported last year that X-rays inhibit the work of the organizers—a significant discovery. He exposed the regenerating tissues of new limbs being grown by salamanders and newts to these penetrating radiations, with the result that no limbs developed. Although under certain conditions the cells continued to multiply, they would not

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[11] New York *Times*, April 28, 1939.

[12] *Science*, April 16, 1937.

differentiate into specialized tissue, and even cells which had begun to differentiate returned to the unspecialized stage.[13]

The bearing of occult physiology on these results is easily illustrated. In a discussion of the emergence of the root types of the animal kingdom millions of years ago, Madame Blavatsky suggests as a parallel process the spiritualistic phenomenon of materialization. The building up of visible substantial forms according to the lines of an invisible pattern is a remarkable demonstration of the law involved in the development of both species and individuals.[14] In such instances there is a temporary mergence of the plastic astral stuff with the physical, for, as H. P. B. says, astral matter has various and numerous degrees of materiality "from a quite filmy to a viscid state," and "there are precise domains wherein the astral merges into physical evolution."[15] The phenomenon of materialization is an analogue of this mergence, the astral matter becoming semi-material and visible to the eye. Its properties, so far as modern psychic research is concerned, are well described by Dr. Gustave Geley in a report to the General Psychologic Institute of Paris. Of "ectoplasm," the name given astral matter by scientists, he says:

> It is variable in color, white, gray, black. It is mobile and timid, retreating to the medium as if for protection. It is sensitive to the light, and strong rays cast upon it give pain to the psychic. It has an immediate, irresistible tendency to organize itself. It forms hands, limbs, faces, complete bodies. It has no means of defending itself. It is like a timid animal. It is ephemeral, yet capable of appearing solid and permanent.[16]

Further testimony of the sensitivity of astral matter to light rays is supplied by Schrenk Notzing in his *Phenomena of Materialization.* White light, he says, acts destructively on the psychic projections from the medium's body. "It appears to produce a molecular softening of the invisible rods!"[17] Conan Doyle makes a similar observation in his *History of Spiritualism.* The effect of a sudden flash of light is to drive the protruding astral structure back into the body of the medium with the force of a snapped elastic band. He tells of a medium who was bruised from breast to shoulder by the astral impact of ectoplasm recoiling from the flash of an electric torch.[18]

The Theosophic teaching that the astral body is electrical and magnetic in essence explains this unusual sensitivity of the material-

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[13] New York *Times,* April 21, 1939. [14] *The Secret Doctrine* II, 737. [15] *Ibid.,* 251, 257.
[16] Quoted by Hamlin Garland in *Forty Years of Psychic Research* (New York: Macmillan Co., 1937), p. 262.
[17] *Op. cit.,* p. 25. [18] *Op. cit.,* II, 126.

izing substance to light. Separated from the coarse rind of the physical body, the astral is unprotected against the vibrations of the light. It was to be expected, therefore, that the powerful X-rays would have the power to reduce the "organizers" to impotence; these radiations penetrate the delicate stuff of the embryo, or of the regenerating tissue, and obliterate the electrical pattern which guides the differentiating cells into specialized structures. A similar effect was obtained by Prof. H. J. Muller of the University of Texas. He exposed the chromosomes of fruit flies to X-rays, producing thousands of insect monstrosities—"Flies with eyes that bulged, flies with eyes that were sunken; . . . flies with extra legs or antennae or no legs or antennae; flies with wings of every conceivable shape or with virtually no wings at all."[19] This line of experiment was taken up by S. Y. Karayevoy of the Moscow Institute of Genetics. The Soviet biologist found that ultra short wireless waves would induce mutilations and various other changes in the chromosomes of peas. In time he learned to predict just what effect would follow, depending upon wave length, time of exposure, and the distance of the peas from the source of radiating energy.[20]

Manifestly, these crude attacks on the mystery of form can do little more than confuse the investigators. Far more productive of knowledge about nature's processes of patterned growth are the researches of Alexander Gurwitsch, a Russian scientist who in 1924 reported that cell division in plants and animals is caused by some type of radiation. His experiments, with some others, are described in a Science Service news dispatch:

> Gurwitsch found that if the tip of one of the rootlets of an onion or a turnip was fixed so as to point at right angles to the side of another root, though as much as a quarter of an inch away, the cells in the side nearest the tip would multiply more rapidly than elsewhere and so bend the root away. That this influence was not due to the emission of some gaseous emanation from the root tip was proved by the interposition of a thin sheet between the two roots. Glass and gelatin sheets stopped the transmission of the growth stimulation power but quartz did not. This is characteristic of ultra-violet rays and Gurwitsch concludes that the radiation from the root tips has a wave- length of 180-200 millimicrons, which would place it among the ultra-violet rays of high frequency.
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> The German botanist, N. Wagner, has repeated these experiments with bean and onion roots and measured the effect by counting the number of new cells produced in the roots acted upon. The increase

[19] Waldemar Kaempffert, *Science Today and Tomorrow* (New York: Viking Press, 1939), pp. 177-8.

[20] New York *Times*, July 2, 1937.

is as high as 70 per cent in some cases. Old cells that have ceased growing show the greatest relative increase.

The German bacteriologist, M. A. Baron, has found that the radiation from onion roots will likewise accelerate the growth of anthrax bacillus and other bacteria. The growing tip of toadstools gives off these same growth-generating (mitogenetic) rays.

The Siemens Electrical Company has taken up the question and Doctors Hauser and Vahle working in these laboratories report that certain growing animal tissues, such as cancer, emit such rays.

These results, if confirmed, will radically revolutionize present theories of life and growth. It has hitherto been assumed that the impulse to cell subdivision was somehow due to the direct contact of certain chemical substances transmitted through the tissues, but it now seems that an energy agency is active in vital processes, an immaterial radiation of the nature of light but of too high a frequency to be detected by our eyes.[21]

The study of the electrical polarity of cells in connection with developmental processes presents evidence of parallel significance. The lowly liverwort, *Marchantia,* exhibits striking functional polarity in regeneration. Even very small pieces, according to Prof. Edmund Wilson, "retain their original polarity, the new apical region being formed typically from or near to the most apical region of the piece; and since these pieces may be very small, Vöchting concluded that every cell is probably polarized in the same sense and may give rise to a complete plant."[22] Prof. Wilson reports observations of lower animals showing that different kinds of animal cells—germ-cells, gland-cells, and epithelial cells—exhibit differences in polarity according to their function. Gradients of polarity, corresponding to varying rates of metabolism, have been discovered; "the electrical gradients closely correspond with the metabolic, levels of high metabolic rate being electronegative to those of lower." Further, "the polarity of the adult body is modeled on that of the ovum." On the nature of polarity, Prof. Wilson observes:

> Fundamentally, both the nature and origin of polarity are unknown. We know only its visible expression, which in most cases is both structural and functional, appearing on the one hand in a polarized grouping of the cell-components, on the other in differences of functional or metabolic activity with respect to the axis thus marked off.[23]

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[21] *Science,* June, 15, 1928.

[22] *The Cell in Development and Heredity* (New York: Macmillan Co., 1925), pp. 106-9.

[23] *Loc. cit.*

The refined techniques of modern biochemical research, while deepening the mystery involved in the mechanistic hypothesis, make the work of the astral body clearer with each new observation. In a recent study of the alga, *Valonia,* X-ray photographs of the cell were taken to determine the directions of the cellulose chains which constitute its structure. The chain directions, it was found, fell into two distinct sets, one set comprising meridians to the cell—which was in the form of a prolate spheroid—the other set forming what appeared to be logarithmic spirals closing down on the poles of the cell. A constant angle between the two sets of lines was maintained. The cell wall of the *Valonia* consists of many thin laminae, and the chain direction alternates regularly from one lamina to the next. According to the observer:

> The surprising thing is that the chain directions should be preserved so well, not in adjacent, but in alternate layers, all the way through the cell wall. We have no satisfying explanation yet of this early, though striking enough, achievement in molecular architecture, but the mechanism can hardly involve orientation by deposition on cellulose chains already laid down, as was once thought. Some factor internal to the cellulose wall is indicated, some directional rhythm in the protoplasmic lining that synthesizes the cellulose. Valonia is one of the lowliest of living creatures, and we have learnt much about its metabolism and wall structure—but we know nothing really.[24]

It seems inevitable, as Prof. Wilson is inclined to believe, that biologists must fall back upon "the assumption of a 'metastructure' in protoplasm that lies beyond the present limits of microscopical vision." While admitting that such a view does not command the acceptance of many cytologists, he points out that both the chemist and the physicist have been obliged to make analogous assumptions.[25]

Today the theory of "metastructure" literally demands the assent of students of morphogenesis. No other hypothesis fits the facts. But it is no "hypothesis." The astral body is a manifest reality for all those who will examine the countless evidences of its designing action within and behind every form in nature.

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[24] W. T. Astbury, *Annual Review of Biochemistry* VIII (1939), 128.

[25] *Op. cit.*, p. 78.

COMMON FACTORS

THEOSOPHY has been denominated the mathematics of existence. The value implicit in the metaphor is well worth consideration. Why not have said that Theosophy is the religion of existence, or the science, or the philosophy, or the metaphysics of existence, and so on?

Plato must have had a reason for his expression, "the deity geometrizes." So with the Kabalists and the Hindus of old, their predecessors, in the use of numbers and cycles as the basis of all their calculations of the changes in life and energy, as well as in alterations of matter and form. So, also, with our modern professors and students in all the departments of human activity. Physics and chemistry, astronomy and meteorology, biology, physiology, medicine, and even history, made, in the making, and events to come—all these are subjects of incessant calculation in the daily round of the humblest man as well as among the learned and the wise.

What, then, is "calculation"?

With most of us, it is a mere synonym for an estimate, a speculative prognostication, an attempt to read the future in the light, not only of the past and the present, but of our various and changing beliefs, opinions, predilections and prejudices. On consulting that nearest to reliable revealed scripture, the dictionary, we find that "calculation" has, or should have, an *exact* meaning, to-wit: "To calculate is to ascertain or determine by mathematical processes."

When we examine our religion, our science, philosophy and metaphysics, whatever these may be in any individual or collective case, we can easily calculate, each for himself, how far these mental contents are from having been mathematically acquired. Satisfied of that, or rather dissatisfied with what we have thus determined, two courses naturally suggest themselves. We can go over our own supposed "answers" in the effort to determine our errors of calculation so as to avoid repeating them. This is about as far as any of us carry our study of the mathematics of our own existence. Many, very many, do not go even that far, but continue repeating day after day the same mistakes of body, mind, and soul. In the personal sense, we explain or excuse this by calling it our "habit." With others there is the attempt to avoid this repetition, but our experience will tell us unmistakably, if we inquire, that far more often than not we merely exchange one miscalculation for another.

This is excused on the impersonal ground that man is "prone to error," and that one "cannot change human nature." With rare exceptions indeed, even our wisest men stop here, not perceiving that they have succumbed to the universal habit in place of the personal one. In this sense our religion, science, and so on, are but mental and moral extenuations for our low grades in solving the problems of life.

The other course is to calculate whether we know enough of "human nature" to have ascertained and determined that it cannot be changed, individually and *en masse*. Such a calculation will enable anyone to verify that this "answer" rests upon the assumption that we know ourselves well enough to be assured that "human nature" is all there is to a man—in other words, that Self and Human nature are synonymous expressions. Well, *are they*?

Certainly there is good, better, best, and bad, worse, worst, in human nature as in everything else. This is the self-evident fact, but does that explain anything, does that give us any answer or path to solution of the problems of existence itself? The worst of men may, if he so wills and struggles, enter by degrees the ranks of the best, or travel in that direction from his given point of departure. Nor can any man be mistaken in making this sustained effort. If some do make the attempt, what causes them to enter on the unequal trial? Is it the "worst" in them? But if we represent the worst by zero, our knowledge of the simplest arithmetic tells us that zero multiplied by zero ends where it started—in zero. There must, then, be good in the worst of men. That good is the innate power to learn from experience. Who shall set limits to learning?

But the "best" of men often fall, under stress, strain, temptation. Some element or factor in their human nature must of necessity have been present, though latent and unknown to them, which upset all their prior calculations. What, then, do they really know of human nature or of Self? What have they really learned of the mathematics of existence, that they should rely on the "good" in themselves and in Nature? What do they, any more than those who rely on the "bad," understand of the *Duality* in man and nature?

Before birth and after death are integral with human existence. "I die daily" was no metaphor of St. Paul's; it is the instant and insistent fact. *We cannot live without death.* There is no Present distinct from all the Past and all the Future. All calculation is but the prelude to decision, all decisions but directions given to the will, all actions but expressions of the will, all good and evil but results, effects, *answers* given by great Nature to "human nature."

Sleeping and dreaming are as much and as inseparable parts of our experiences as our waking consciousness, yet we ignore them as factors, accept them as mere facts, as we do ante-natal and post-mortem factors—unavoidable necessities to and in our existence. Here again, in this word "factor," we are confronted with a mathematical term. A "factor" is but one of several elements in any problem or its solution. We devote our energies of soul and mind and body to an almost complete absorption in the factors of quantities and qualities. Hence our materialism, or our psychism, as the case may be, in studying the possible other elements present in all the operations of Nature and of our human nature. Materialism is the solution derived from calculation of the objective, as psychism is the answer provided by calculation of the subjective side of our experiences. Both are failures to solve what Haeckel called "the Riddle of the Universe." One is as much a theology as the other. Each is one-sided, and so, forever at war with the other, because at war with facts which are denied or ignored. Hence we have the familiar phenomenon of the change of a man's faith from one to the other, as he is forced by fact or reflection out of his repose. What has occurred? He has merely exchanged one mistake for the other, and so, has failed to go beyond the limits of human nature even as known to us. Such an one must return to the familiar finality: "human nature" cannot be changed—unless by miracle, *i.e.*, some factor outside of man and of Nature. Miracle and Mathematics are irreconcilable, for miracle represents an "X" that can never be ascertained by mathematics—a value forever "unknown."

The real Theosophists of every period are those who recognize that in man are other factors than human nature, than physical nature and and animal nature—that there is an unknown element or principle called the divine nature. Whether the recognition is instinctual, intuitive, reasoned, or comes from reflection upon one's own experiences and unsolved problems raised by them—all this matters little. The grand fact is that from this realization a man begins to study these several known and partly known factors, and to search for the wholly unknown. It is this inner effort to study and to learn that brings one in contact with the outer means of education in the School of Life. From then on his outer life becomes more and more mere fuel to feed the flame of the inner light.

He is, as unconsciously as a plant or a child grows, changing his human nature, and that change is a beneficence in itself to all whom he contacts. Other men are themselves moved to inquire, to learn at first-hand from the universal Light thus brought to focus in them-

selves. All this may come, as he learns to over-ride circumstances, environment, and all external conditions, whether these change for better or for worse from the standpoint of human nature. He has become a pupil, a disciple, in Life's vast school.

The Cause of Despair

The seeds of evil and sorrow were indeed the earliest result and consequence of the heterogeneity of the manifested universe. Still they are but an illusion produced by the law of contrasts, which, as described, is a fundamental law in nature. Neither good nor evil would exist were it not for the light they mutually throw on each other. *Being,* under whatever form, having been observed from the World's creation to offer these contrasts, and evil predominating in the universe owing to *Ego*-ship or selfishness, the rich Oriental metaphor has pointed to existence as expiating the mistake of nature; and the human soul (psüche), was henceforth regarded as the scapegoat and victim of *unconscious* OVERSOUL. But it is not to Pessimism, but to Wisdom that it gave birth. Ignorance alone is the willing martyr, but knowledge is the master of natural Pessimism. Gradually, and by the process of heredity or *atavism*, the latter became innate in man. It is always present in us, howsoever latent and silent its voice in the beginning. Amid the early joys of existence, when we are still full of the vital energies of youth, we are yet apt, each of us, at the first pang of sorrow, after a failure, or at the sudden appearance of a black cloud, to accuse *life* of it; to feel *life* a burden, and often to curse our being. This shows pessimism in our blood, but at the same time the presence of the fruits of ignorance. As mankind multiplies, and with it suffering—which is the natural result of an increasing number of units that generate it—sorrow and pain are intensified. We live in an atmosphere of gloom and despair, but this is because our eyes are downcast and rivetted to the earth, with all its physical and grossly material manifestations. If, instead of that, man proceeding on his life-journey looked—not heavenward, which is but a figure of speech—but *within himself* and centered his point of observation on the *inner* man, he would soon escape from the coils of the great serpent of illusion. From the cradle to the grave, his life would then become supportable and worth living, even in its worst phases.

—H. P. BLAVATSKY.

THE PATH OF THE UNMANIFESTED

"Let, then, the motive for action be in the
action itself, and not in the event."
—*Bhagavad-Gita.*

EVOLUTION is an ever-growing realization of the Unity of all Life, an endless series of progressive awakenings. As such it is both real and unreal, both absolute and relative. As *realization* in the sense of a particular *goal* to be reached, it is relative, for in an infinite universe any goal, however great or sublime, is but a step in an endless journey. As a *process* in the sense of *striving toward* a goal, it is absolute.

In the striving toward any "perfection," the perfection itself is not real, but the striving. Perfection is relative, is unreal, for beyond any particular perfection lie infinite possibilities of infinitely greater perfections. But the striving is constant, is real, is absolute, nay, is Perfection itself.

Life in manifestation is an endless succession of unrealities, aspects of the One Reality. Evolution is but a name for the process of realizing the Real in all unrealities. In any realization, the real is not the thing realized, but the process of *realizing* itself. In every action the thing done is unreal, but the doing itself the real. Knowledge is not real, for no matter how much we may know, knowledge infinite in scope remains to be gained; but learning is real. Therefore the purpose of life is not to know, but to learn.

Whatever is subject to time or space cannot be of the nature of the Real. Goals, achievements are not real, for they are reached at some time, in some place. Like any event, they emerge from the future into the present, only to drop instantly into the past. Like any place they are approached, reached, and left behind. No place in space is real, for any particular spot exists only in its relation to other places. No moment in time is real, for all moments exist only in relation to other moments. Past, Present, Future—which of them is real? The Future always "will be" but never "is." The Past always "was" but never "is." The Present alone never "will be" nor ever "was," but eternally *is*. Yet even the Present is not real as *the present moment*, as a division of time, but only as Present-ness, as Time itself—Eternal Duration. Just as the only reality in time is its ceaseless duration, so the only reality in space is its omni-presence.

We constantly mistake the unreal for the real. Things, events, people, ideas, worlds—none of them remains unchanged for a fraction of time. They exist in time and space, and ceaseless motion or change is their only unchanging characteristic, their only reality. Yet it is things themselves that appear real to us, events, ideas, people, worlds as such, whereas the change they undergo, both in time and space, we look upon as the shadow of unreality cast upon the real. This is the Great Delusion that causes us to persist in the hopeless attempt to find lasting happiness in a world of change. Placing immortal love on mortal things, we make of life a journey through a vale of tears. It need not be so, it *is* not so, once we have found the Real.

We live from moment to moment, we move from place to place, we do one thing after another thing, thinking the moments, the places, the things to be real, whereas the real is the living, the moving, the doing. We aspire toward a certain goal, we labor for a particular reward, we strive toward some glorious achievement, thinking the goal, the reward, the achievement, to be real, whereas the real is the striving, the laboring, the aspiring. We create works of beauty, we build cities and evolve great civilizations, thinking civilizations, cities, works of art to be real, whereas the real is the creating, the building, the evolving. We love parents, friends, children, thinking beloved persons to be real, whereas the real is the loving. We live lives of toil, of sorrow, of disappointment, as well as lives of pleasure and abundance and success. We think those lives are real, whereas the real is the living.

Reality itself is not real apart from Unreality. The Real is no-thing and no-where, yet it is in everything and everywhere. It is to be searched for in what seems unreal no less than in what appears as real. Only he who has found that the *searching* is the real, and does not search to *find,* he alone *has* found the Real. "The Ever-Striving are the Ever-Free!"

We should cease doubting our power to accomplish. If we doubt, it will be like trying to shoot an arrow with a loose bow-string—no force, and no certainty of direction. When the bow-string is pulled taut, and let go, there is *no hesitation* in the arrow. It goes where pointed and with the strength in the pull.—R.C.

COMING TO TERMS

THE first step in the solution of a problem is the reduction of its elements to their simplest terms. Most familiar to us in elementary arithmetic, this rule is essential to every problem-solving operation of the human mind. It is the fundamental conception of modern scientific method, although more often abused than used wisely by the scientists. It is, in short, the search for "the principles of things."

What are the simplest terms in which the vast variety of phenomena we call Nature can be expressed? A popular answer to this question was given by Democritus more than two thousand years ago. All things, he said, can be reduced to atoms moving in different configurations in the void—"all else is mere opinion." This idea has been repeated countless times by ancient and modern materialists who have sought to make it the foundation for all knowledge, with what success we know. Others have attempted to assimilate the infinite diversities of life to "God's Will"—a principle which, as Spinoza said, explains nothing and is the "asylum of ignorance."

Men's opinions as to what constitute the "simplest terms" have varied with the times and with individual experience. In a philosophizing age, abstract principles are asserted to be the pattern of reality, in terms of which all things must be interpreted. Hegel recognized the universal process of "mixture, precipitation and separation" as the method of nature and formulated the dialectical method of historical analysis: every event is resolved into three elements, thesis, antithesis and synthesis. Spirit, or the Divine Mind, is the thesis, which meets the resistance of matter, its antithesis, and from this conflict and interpenetration of opposites results the higher synthesis of evolutionary development—the realization of greater and greater degrees of the freedom of spirit. Karl Marx borrowed from Hegel the dialectic method, but gave the three terms of the triad other meanings. In his social system, the material world and its economic circumstances are the thesis, the primal reality. These are met by the antithesis of human striving in the endeavor to adapt natural conditions to man's needs, with the resulting synthesis of socio-economic order. The final form of social opposition is the conflict between the capitalist and proletarian classes, out of which will emerge the classless society—the ideal social synthesis.

The almost magic persuasiveness of a widely applicable generalization like the dialectic—whether of Hegel or Marx—is one of the wonders of the history of thought. Every influential theory of progress the world has known has for its key idea a principle or law of development which is the *dynamic* of the theory. It is impossible for a movement to enlist the support of men without a clear and easily comprehensible principle of development through which some common objective can be realized. This is perhaps the most important reason why the doctrines of present-day sociology are unable to give direction to modern movements of reform. Scientific theory has no simple and generally accepted doctrine of social progress, no *fundamental law* of development.

There are other "fundamentals" besides law. Assuming that the dialectic process, for example, is a true description of nature's modes of action, the question remains: What is the reality, thing or kind of being that acts in this way? This question is important, for process by itself is only an abstract equation. If the source of activity is found in Spirit, the result will be an idealistic philosophy in which the factors of free will and moral responsibility play an ultimate part in the drama of life. On the other hand, if the process is energized only by the motions of matter, then there is literally no place in the scheme of things for human motives and principles of morality, unless matter is intrinsically "moral"—something that few philosophers have had the hardihood to suggest. For the Platonic view that thought rules the world, the materialist substitutes the theory that all ideas are but the reflection of physical events. Thus the materialist is concerned with changing events in order to alter the world; this being accomplished, a change in ideas will follow automatically. According to Marx, "The mode of production in material life determines the general character of the social, political, and spiritual processes of life." This being his view, it was natural that Marx had no interest in the motives of individual men. The determining economic law affects only the behavior of masses of men—the classes and groups that are the irresolvable units of dialectical materialism. As Newton's laws know nothing of electrons, so the Marxian law of historical development does not take cognizance of the primary unit of society—the individual man.

Other social theorists have other "simplest terms" or fundamentals. Some eugenists, for example, believe that reform is principally a matter of "gene-control." This opinion is not founded on a metaphysical view of nature such as the dialectic, but on the fragmentary findings of a department in biology. The enthusiast of

eugenic theory needs no philosophy of nature; the good life, he thinks, is simply a problem in heredity. The Behaviorist, on the contrary, reduces all the significant values in human conduct, mental and moral, to "conditionings" of environment. Stimuli from without are the prime factors which must be dealt with in any attempt at human betterment. If children are exposed to the proper environment, society can be remolded at will. Such, at least, is the theory, although it is not yet clear after what model of human perfection the Behaviorists would mold mankind.

Meanwhile, in reaction to modern materialism, the old "simplest terms" of evangelical Christianity have come to life again. "God has a Plan," claim a number of abdicating intellects who prefer Him to do their thinking. "Moral Re-Armament," according to these ingenuous believers, means a return to childlike faith in "God"—whose plan, so far, has proved an abortive failure. Still more corrupting of the human mind are the fantastic distortions of certain Theosophical tenets by the leaders of the notorious "I Am" sect. Outdoing the dogma of vicarious atonement, "I Am" adherents suppose that by contacting a mysterious "blue ray," all Karma may be miraculously dissipated. While the eugenists would be content to obliterate bad genes, the Ballards have a death ray for bad Skandhas! Such terms are indeed "simple."

Modern thought exhibits a great diversity of ill-founded fundamentals. Is life hard to bear? The religionist refers you to God, who turns out to be an absentee landlord. The materialist refers you to a committee of Aristotles—men who, you find, however sincere, are in irreconcilable disagreement on all the questions that are important. The educator refers you to the university, and the confusion there disclosed is blamed upon the parents, the secondary school, or inadequate statistics. The politician refers you to his "program," the business man to lower taxes, the liberal to higher. The philosopher discourses on Monism, Dualism, Pluralism, and Radical Empiricism, and you, like himself, are unable to make up your mind; in consequence many have concluded that mind is not of such great importance after all.

The greed and selfishness deplored by the ethicist are demanded by the evolutionist as the sole springs of human conduct. The purity advocated by the ascetic, the Freudian condemns as repression. The wars hated by the pacifist, dictators claim to be ennobling. The indecision of the thoughtful observer is scorned as "either-or-ism" by the zealot of reform, whose zeal, in turn, is regarded by others as an emotional blurring of issues which cannot be decided until we

have more "facts." Rationalists who would organize the facts we have are denounced as speculators and metaphysicians, and these reply by pointing to masses of "data" which lead nowhere. Scientists indict the insistent bigotry of religion, from Tertullian to William Jennings Bryan, while religionists link science with poison gas and modern bombers. The astronomers bid us have patience—contemplate the peace of the stars, one of them told us recently. Act, and learn the truth, urges the pragmatist. Meditate, rejoins the yogi.

God's reputed "goodness" constrained Leibniz to argue that this is the best of all possible worlds. Schopenhauer looked at God's world and longed to exchange it for nothingness. It has been seriously suggested that a corps of monkeys, banging away at random on typewriters for millions of years, would in the course of time produce entire the works of Shakespeare. Thus is genius dwarfed by the law of probabilities. Shakespeare is replaced by an equation: Monkeys plus Typewriters times a Million Years equals Hamlet, Macbeth, etc.

These things are almost beyond comprehension. How can human beings, endowed with the same powers of mind and confronting the same field of experience, come to such amazingly different conclusions? — conclusions which are of final importance in respect to what life is and what it is for. Is it conceivable that a simple concord on the principles of things can leash these extraordinary flights of the human imagination, or better, give to thought a common direction which, while retaining the ineradicable diversities of individual thinking, would turn this deafening clash of incompatibles into a mighty harmony? Theosophists hold that it is not only conceivable, but possible and necessary.

For the Theosophist, the simplest, the ultimate terms of all experience are the realities represented by the three Fundamental Propositions of the Secret Doctrine. These three ideas govern all abstract conceptions of origin, process and purpose; they elicit the meaning of every relation in life in which are present an acting energy, a resisting medium and a resulting effect. These three factors are the constant element in every experience, although their interrelations vary according to planes of activity.

Here must be introduced some other irreducible terms of experience—the seven principles and planes of man and nature. The facts of existence require seven levels of manifested reality, each involving a peculiar modification of the universal processes of nature. The action and reaction of the visible world of the senses are analogous

to the psychic processes of feeling and sensations, but they are not identical with them; the two fields of experience correspond, but one can not be reduced to or defined in terms of the other—not so long as evolution is in progress. Nor can feeling be identified with reflection. Intuition is not the same as ratiocination, nor is motive merely animal desire. The Self is neither the objects nor the instruments of perception. Love can not be defined as a complex function of atomic valence, nor hate as an allergic response of the endocrine system. The random motion of electrons does not "prove" free will; *willing* proves it.

The principles of the Theosophical philosophy are supported by the facts of life. Study and application of these principles show them to be the simplest terms to which all experience can be reduced. If there is altruism in the human heart, the artificial constructs of physical law will never explain it. Altruism is a principle unto itself. If there is sympathy and understanding among some men, there can be sympathy and understanding among all men. But the lion lies down with the lamb only in Holy Writ—a somewhat discredited source of natural history. The fellow feeling of human beings, then, is not merely an exaggerated herd instinct. What of mind? When dogs write sonnets, when whales publish nautical treatises, and ants and bees go to war for a Bill of Rights, then we may account the mind of man an evolution of the animal kingdom, but not before. When apes discover the "libido" to rationalize their instinctive propensities and pigs issue recipes for gourmands, then we may admit that animal and human desires are the same.

Here end the striking differences between conscious egos and creatures of animal impulse, but even below the principle of desire are unique qualities to be observed in the human being. We dimly sense an intrinsic *humanness* about man's body; even its texture is somehow different, finer.

The principles of objective nature need also to be distinguished. The delicately traced pattern of a leaf is not explained by bounding, bouncing atoms. There is an architect working in every visible form, a designer whose cunning defies chemical analysis. The germ is more than a packet of inanimate elements; it is the focus of an invisible principle of form and hides a living force.

In the early days of western science, terms or principles of explanation were accepted because they "saved the phenomena." Today we have a different method. We ignore the phenomena to save our principles. Occam's razor has been used so often and with such enthusiasm for materialism that the realities of life are all but

entirely whittled away. Physical theory may save the phenomena which occur in a Wilson cloud chamber, but the universe is somewhat larger than this. Biology is rhapsodic about the conjugation of chromosomes; it has an epic literature about the curiosities of Drosophila heredity, but who can explain the curious ground plan of evolution, resulting in the parallelisms of unrelated types? Then there is the matter of strange birthmarks and the whole field of teratological phenomena, but in these the biologist is not "interested." Such facts are *im*-pertinent. The prayer of Thomas Huxley, "God, give me the courage to face a fact though it slay me," has been forgotten.

The catalog of natural phenomena, psychological phenomena, even *spiritual* phenomena, which are in desperate need of being "saved" could be continued through many volumes. Some day it will be realized that principles are themselves phenomena which must be saved, and that this is possible only by recognizing in the mind the source of all principles and a principle of a sort itself. Principles are *contributed* by the mind, not "inferred" from physical facts. We are not protected from the mistakes of the mind by refusing to think, but by our ability to test all principles by using them to organize the facts of experience. Of course, if we disregard certain facts, the defects in our principles can never be discovered. And if we refuse to try certain principles we can never find out their value.

Somewhere this vicious circle of empirical blindness must be broken, and individual men, microcosms of the whole, must begin the reform. Suppose that for the principle that man is but a higher animal, men were to substitute the idea that all beings are spiritual intelligences, originating from a common source; that in the buffetings of blind chance they were to see the operation of inexorable justice; that the objective of material acquisition they were to exchange for the ideal of growth of soul. Individuals, living according to such principles, would find their fears dissolving, their hopes enlarging, their common difficulties lost in their common resolve. Soon it would be discovered that the simplest term of social reform is individual regeneration, that brotherhood can be as contagious as hate and distrust; that one man, or a small group of men, can set an example millions will follow without constraint. Men would learn that the simplest term of suffering is separateness, that brotherhood is the essence of happiness; the only Deity, the Self within. Finally, the secret of wisdom would be found in the desire to act wisely and for all. This is the ultimate principle.

YOUTH-COMPANIONS' FORUM

IF myths contain true history, why is it so difficult to understand them?

We do not know the meaning of the myths because we do not know the real history of the ancient races of humanity or of the continents on which they lived. We read the myths as a child might learn a beautiful poem. The child may love the rhythm and the music of the lines, but he will not understand the meaning. H. P. B. has given us both the true idea of ancient history and the symbolic key by which the myths and the legends of the past can be explained. Popular folklore and traditions, however fanciful at times, when sifted may lead to the discovery of long-lost but important secrets of nature.

We read of Niobe weeping for her children. How can anyone know what Niobe represents until he has learned about the sinking of continents? Niobe represents submerged Atlantis drenched with the tears of the Atlantic ocean. Who are the "gods" and "heroes" in the myths? How could anyone who had never heard that Third Race men were "towering giants of godly beauty and strength and depositories of all the mysteries of Heaven and Earth," understand why the people of the Fourth and Fifth Races remembered their great ancestors as gods and heroes? Posterity composed biographies for the Third Race, in which the men of that cycle were symbolically represented as gods of different natures, dangerous and beneficent. Psychic powers, magnetic powers, clairvoyant powers, the ability to overcome gravity—all these are recorded as gods with different dispositions. Or again, the gods may represent electro-magnetic currents of which we at present know little. Some of the currents are close to the earth and some at greater distance, and so we read of some gods and goddesses who followed Jupiter to a great distance and some who turned and came back to earth after following him a short time.

Until and unless we know more of the occult forces of nature, of dual evolution and the ceaseless motion of the One Life, the myths must remain lovely but sealed mysteries. A man may read Greek aloud to another and not understand a word of what he is reading because he has been taught only how to pronounce the words. The myths are memorial dreams of knowledge which we have lost. Some day we will read the story of Niobe and see how truly it allegorizes both the moral and the physical catastrophe of Atlantis.

H. P. Blavatsky wrote of herself as "one of those who feel convinced that no mythological story, no traditional event in folk-lore of a people has ever been, at any time, pure fiction, but that every one of such narratives has an actual, historical lining to it," adding that "The religious and esoteric history of every nation was embedded in symbols; it was never expressed in so many words. All the thoughts and emotions, all the learning and knowledge, revealed and acquired, of the early races, found their pictorial expression in allegory and parable." (*S. D.* I, 303, 307.)

Is it a favorable sign that a growing number of men in public affairs think a revival of religion in the United States would be a good thing?

It would be difficult to revive religion through the churches and escape sectarianism. Many questions would arise in connection with the use of the Bible. Whose interpretation should be used, and whose idea of salvation, and which explanation of the "Sermon on the Mount"? A revival of religion would thus mean reviving old dogmas and controversies. Would it not be a good thing to recognize that the church, like other institutions, passes through different stages and is now like an old man whose years are numbered?

Men in public life see the decline in the power of the church, and, regretting the increase of crime and other disorders, are led to believe that a revival of Christianity would improve matters. All human beings have glimpses of the true light and when they desire earnestly to help their fellow men, as most public men do, they naturally think of religion. And they are right, for a revival of *true* religion would bring about a wholesome change in humanity. These earnest men should think more deeply on this question, and then they would see that if the churches were an expression of true religion, they could not have failed, and that with the disappearance of sectarian churches a place would be made for the revival of true religion.

It is said that the Great Ones never defend themselves from unjust attack. Why is this? Should we not be just to ourselves as well as to others?

Both H. P. B. and W. Q. J. were attacked unjustly, yet they did not defend themselves personally; for, as Mr. Judge wrote:

> . . . only the feeling of true brotherhood, of true love towards humanity aroused in the soul of someone strong enough to stem this tide, can carry us through. For LOVE and TRUST are the only weapons that can overcome the REAL enemies against which the true theosophist must fight. If I, or you, go into this battle from pride,

from self-will, from desire to hold our position in the face of the world, from anything but the purest motives, we shall fail.

Attacks cannot hurt, they must needs come, but all we have to do is to keep right on, working steadily. . . .

Let us all be as silent as we may be, and work, work; for as the enemy rages, they waste time, while work shines forth after all is over, and we will see that as they fought we were building.

Do not allow bitterness to come up; keep off all personalities all the time; let the fight be for a cause and not against anyone. Let no stones be thrown.

Let them croak, and if we keep silent it will have no effect. . . . The only strength it has is when we take notice. It is better policy for all of us who are in earnest and united to keep still in any matter that has any personal bearing. (*Letters That Have Helped Me* II, 53, 66 79, 85, 86.)

The Great Ones, instead of answering personal attacks with counter-attacks or defenses, seek to eliminate the cause of the misunderstanding by returning good for evil, constructive work for destructive work. However, it is the duty of every theosophist to defend his colleagues from unjust attack. H. P. B. wrote in *Lucifer* for March, 1889: "If the false prophets of Theosophy are to be left untouched, the *true* prophets will be very soon—as they have already been—confused with the false."

At the very outset of her mission, H. P. B. declared it her purpose to vindicate "caluminated but glorious reputations," and to show "neither mercy for enthroned error, nor reverence for usurped authority." Mr. Judge defended H. P. B. from unjust attack in the famous "Sun Libel Case," even though it meant making many enemies who later turned against him. When H. P. B. was slandered in India, the failure of the Hindu and other theosophists to defend her spelled the relative failure of the Movement in India.

Simply to protect the "personal" reputation of H. P. B. was not the real issue in these cases. She represented more than the life and affairs of an individual. She was and is the Symbol, the Representative, of a great *Cause*. The defense of H. P. B. is the defense of Theosophy itself. The defaming of Theosophy sets back the welfare of all humanity, not merely of a single individual.

To defend anyone who is unjustly attacked should be a spontaneous human reaction. We should do it as naturally as we breathe, and we always will when we have realized our brotherhood with all that lives. We cannot be just to ourselves and fail in defending the rights of others.

THE SCIENCE OF MORALITY

THE word "Morality" casts a forbidding gloom over the ordinary man. It is associated in his mind with attempts on the part of theology to harness and bridle the human spirit to certain unequivocal rules of conduct. Moreover, morality is usually associated with a merely negative program of life; in the language of the church it becomes a list of things expressly forbidden by God.

But true morality is no code. No volumes of logic are required to demonstrate that man's highest happiness lies in being a man—in exercising his own power of choice, in determining his own path of progress and invoking his own will. It is by these means that soul evolution proceeds.

Morality is the field of conscious choice and action. All men are occupied with questions of morality. Every moment, choices are made which contribute to the general trend of an individual's life, to the nature of the ideals which he strives to realize. The vital questions of morality, then, do not relate to specific acts and thoughts as good or evil, but rather to what general course of conduct best exemplifies intelligent action.

Fundamental in human nature is the impulse to strive for something higher, to find a better way of living. Without this inherent urge of spirit, all systems of morality would be entirely useless, their results in the field of action negligible. As men strive to fulfill this aspiration towards a higher life they search also for a beacon light to guide them, feeling that their own thinking is inadequate. They require assurance, and this assurance has been given to "believers" by priests and theologians or by ethical theorists. The result may be an illusion of "certainty," externally supplied, but the growth of the moral nature is arrested until that certainty is found within the man himself.

Another tendency than spiritual aspiration towards soul progress manifests in man—the tendency towards retrogression. The constant pressures of past habits in thinking and acting are familiar and ever-present obstacles. Man also meets in his seven-fold nature the influence of less intelligent forms of life pursuing an evolution of their own, and his duty to soul is not fulfilled until he has given a higher impulse to all the degrees of life within the sphere of his responsibility. The intelligence connected with what we term physical matter is concerned with the production of form, the basis of separative existence. Soul thus is drawn toward a separative exist-

ence by matter, and toward realization of a universal existence by Spirit. Soul selects its states of consciousness by means of concentration—the use of will.

If concentration is toward unifying the purpose of self with the purpose of all selves, then the path is upward and away from the cloying attachments of matter. If concentration is diverted by any of the states of consciousness passed through—if man identifies himself with his intellectual nature, his psychic nature or his physical nature—he forgets that he is man, a being of choice. He then will sell cheaply his chances for soul-progress to the first one who offers him physical, psychical or intellectual happiness. Herein is the origin of all religions, the secret behind the success of the messiahs who promise salvation without self-discipline.

Man's conception of morality depends on what he believes his own nature to be. When he accepts his essential character as the result of his past choices, he begins to realize a measure of his great and continual responsibility. If, however, his concept of soul is static, if his character is thought to be foreordained by creation of God, the responsibility obviously lies elsewhere than with self.

When the Cartesian and Newtonian doctrines were conjoined with the natural cycle of Karmic development in the Western world to produce modern materialism, the fear of God was eliminated. While the "thinkers" of the nineteenth century were discussing Darwinian and Haeckelian theories in the parlor, "God" quietly disappeared via the back door. Relieved from the depressing presence of their "Overseer," self-appointed moralists and ethical theorists began to formulate new lines of ideal human conduct. They built admirable structures, but made the grave mistake of omitting to lay a foundation for them to rest upon. Moral conduct was feverishly advocated under another name, while the basis of moral conduct—the spiritual nature of man—was completely denied. While there were those able to live upright lives "without benefit of clergy" in the brave new world of science, the crusaders for the new morality soon found to their distress that scientific arguments had not the slightest effect on the masses of their fellows, who readily turned the new freedom into license. Man, considering himself as a whirling mass of atoms indifferently put into working order by the cosmic process, could find no self-compelling basis for unselfish conduct.

Lonely spectres from the moralist's land of make-believe still announce their presence, but no one seems interested. Immanuel Kant formulated his categorical imperative, suggesting the ques-

tion: "What would happen if all men acted as I do?" as the guide in every individual moral choice. A noble ideal, but a dismal failure. In the words of W. Q. J., "If right ethics are to be practiced merely for themselves men will not see why, and never have been able to see why, for that reason, they should do right."

Scientific morality will be possible only when the moral nature of man is understood. What is Conscience? Where did it come from, and why is it the most important determinant in the search for peace and happiness? The moral nature is primarily concerned with intent or motive. The moral or spiritual nature impels men to the service of their fellows, and produces the humanitarians and altruists of this and every age. The great problem is how to affect the undeveloped moral natures of others so that they will become imbued with the desire to work for humanity rather than for self alone. Clearly, such an alteration must come through the mind—that plane of experience but one remove from the moral. Ideas that will affect motive must be ideas that will provide a rational answer to the most basic questions that mind can ask, such as "What am I?" "Where did I come from?" "What is my ultimate destiny?" and "Is there any justice in the natural order of things, or is there only chance?"

If Theosophy be studied in the search for light on these questions, three fundamental ideas will emerge—ideas of which all the complex ramifications of the philosophy are but developments and applications. The essence in all beings is one and the same spirit, the capacity to grow, to unfold potentiality. This is the moving power behind activity on any plane of being. All beings from the lowest to the highest are thus engaged in a common evolution. Law or justice in the universe is not apart from life, but inherent in it. To every being comes the result of his own actions in the form of more or less spiritual development. Both the instinctual intelligence progressing through matter and the self-conscious intelligence of the human soul are indestructible. Reincarnation or re-embodiment is the universal process of development, the means by which each human soul, through the power of choice, has made itself what it is. To make of man a God, to cause him to see his own responsibility, not only for his own destiny but for the destiny of all, is to enable another motive to flower than that for the exclusive betterment of self. Again in the words of W. Q. Judge: "The self-compelling basis for right ethics is found in these and in no other doctrines."

AN OLD PROBLEM

QUESTION: Occasional drinking and the serving of liquor are coming to be regarded as social obligations and "business" necessities. For one who would be moderate, isn't total abstinence sometimes a puritanical extreme, unnecessary and therefore ungracious?

Answer: Once we know the true nature of alcohol and its effects on man, this question presents no more of a problem than if our friends were to invite us to drink poison, and were offended by our refusal. Everyone has observed the effect of excessive drinking of alcoholic liquors on the *physical* man. Theosophists, however, are aware of what alcohol does to man's *psychic* nature. They realize that drinking is one of the very few purely physical habits which can reach into and corrupt the subtler principles of his being.

But why should alcohol, among so many other substances, produce even the visible effects we see? Why should one combination of chemical elements have the power to stupefy the highest and noblest function of the mind and cause man to stoop below the brute? When we have answered this question we will no longer have any doubts as to whether or not we should drink intoxicating liquors under any conditions, or in any amount.

What is alcohol? The dictionary says, it is "a colorless, volatile, inflammable liquid, which is the intoxicating principle in fermented and distilled liquors." This definition tells nothing as to the basic nature of the substance. The chemical composition of alcohol appears harmless enough, consisting of carbon, hydrogen and oxygen, elements found in all organic compounds. Alcohol is a product of the fermentation of saccharine juices present in most grains and fruits. Fermentation is but another term for the decomposition of a complex compound, like sugar, into simpler ones. Sugar does not of itself undergo alcoholic fermentation, but is capable of being decomposed into fermentable substances by living ferments. "Certain germ-cells," wrote H. P. B., "such as those of yeast, develop and multiply in air, but when deprived of it, they will adapt themselves to life without air and become ferments, absorbing oxygen from substances coming in contact with them, and thereby ruining the latter. The cells in fruit, when lacking free oxygen, act as ferments and stimulate fermentation." (*S. D.* I, 249 fn.)

Theosophy teaches that the lives of all forms fall into two classes, the "creators" and the "destroyers." Fermentation, obviously, is

the work of the "destroyers," which decompose form. We must not think, however, that some lives are always creators, and others destroyers. In an ascending cycle, the lives composing a body are predominantly "creators," and in decline the same lives gradually become "destroyers." "Every atom and molecule in the Universe is both *life-giving* and *death-giving* to that form, inasmuch as it builds by aggregation universes and the ephemeral vehicles ready to receive the transmigrating soul, and as eternally destroys and changes the *forms* and expels those souls from their temporary abodes." (*S. D.* I, 261.)

If alcohol is the product of the "destroyers," it becomes clear why its emanations, upon reaching the brain, cause a temporary break with the higher faculties of the individual. To this may be added the suggestion of H. P. B., that wine and Spirits "contain and preserve the bad magnetism of all the men who helped in their fabrication." (See THEOSOPHY I, 87.)

Further evidence that, used as a beverage, alcohol allies itself with the destructive forces in nature, lies in the fact that alcohol destroys the natural defenses of the body against germs. Alcohol prevents the blood vessels from dilating and makes their walls impermeable, thus preventing the migration of the white blood cells—the defenders of the body—to the infected region. The body of a man under the influence of alcohol has no protection against harmful bacteria that may be inhaled, which develop unimpeded until he regains normal consciousness. This recalls H. P. B.'s statement that the sleep of a drunkard "is no real sleep but a heavy stupor, not physical rest, but worse than sleeplessness, and kills the drunkard as quickly."

It might be well to repeat the results of some discoveries about molecular vibrations, which led Dr. Donald H. Andrews of Johns Hopkins to play on the piano the musical chords corresponding to the complex rates of vibration of a number of chemical substances, among them alcohol. (See THEOSOPHY XX, 119.) Alcohol, he found, has a chord of seven notes, described as "seductive." With one exception, these notes form a "well known harmonic combination." Wood alcohol, the violent poison, has a harsh, sharp sound, although chemically very closely related to alcohol.

A tortuous history can be dimly glimpsed behind the phenomena of alcohol. It may seem anomalous that a particularly harmonious set of vibrations should be the basis of a substance which, taken internally, is an insuperable barrier to spiritual knowledge; yet upon consideration such a result appears quite natural. That the chord

is "seductive" perhaps accounts for its fatal fascination, and this might be truer still of habit-forming drugs. Is it not logical that the most beneficent of substances, teachings, natures, when once perverted, become the most deadly? When and how did human nature get so out of tune with the form of life represented by the alcohol formula as to bring about its present maleficence to man? What was alcohol as originally designed by nature? Now its most marked effect is release of inhibitions and exposure to moral infection of the inner nature of its victims. Is it conceivable that there was once a time when what has since become alcohol had the effect, *used wisely*, of making the whole nature of man porous to the Ego?

The Theosophist knows the effect that alcoholic drinks have upon man's moral and mental nature, as well as upon the physical. If he has to drink to keep his friends, then he prefers to lose them. H. P. B. says the Theosophist's duty is "To purify himself inwardly and morally; to fear no one, and naught, save the tribunal of his own conscience. Never to do a thing by halves; *i. e.*, if he thinks it is the right thing to do, let him do it openly and boldly, and if wrong, never touch it at all." (*The Key to Theosophy*, p. 241.)

The objection to drinking may be more general than we think, especially at social gatherings, for even Emily Post says that as a matter of etiquette the careful hostess will always have non-alcoholic beverages on hand for those who do not use liquor.

"QUAKES"

What have I gained, that I no longer immolate a bull to Jove, or to Neptune, or a mouse to Hecate; that I do not tremble before the Eumenides, or the Catholic Purgatory, or the Calvinistic Judgment-day, — if I quake at opinion, the public opinion, as we call it; or at the threat of assault, or contumely, or bad neighbours, or poverty, or mutilation, or at the rumour of revolution, or of murder? If I quake, what matters it what I quake at?

—RALPH WALDO EMERSON.

AN EASTERN CURRENT

IN only a few centuries, H. P. B. wrote in *Isis Unveiled,* the sectarian religions of the world—Brahmanism and Buddhism, Christianity and Mahometanism—"will all disappear before the mighty rush of facts." While at present there appears to be a spasmodic return to Christianity in the West, inspired for the most part by the fear of war and general unrest, this does not mean a revival of faith in the traditional theology of the Church, but rather that the religious instinct of the people, so long repressed by the materialism of our time, is now seeking expression through what seems to be the only available channel. To the more intelligent, however, it is plainly evident that Christianity has failed. This conviction is heard already in many quarters, especially among those who have had opportunity to compare Christian dogma and creed with the great religions of the orient. The growing interest in eastern religious thought has been encouraged in many ways, probably having its chief cause in the humility of those who realize that Christianity is unable to prevent the disintegration of western civilization.

While theosophists will naturally rejoice that the nobility and philosophic grandeur of religions other than Christianity are beginning to be appreciated in the West, leading to a more brotherly feeling for the untold millions of Asiatics as well as a broader understanding of the great religious questions of life, there are nevertheless certain hazards to be recognized in the spread of eastern teachings. The religions of the orient will never be understood truly except in the light of Theosophy, and the conversion of westerners to exoteric forms of Hinduism can at best lead to a quietist religion of *Bhakti,* or at worst, to Hatha Yoga and sorcery. A significant account of these tendencies is given in *Hinduism Invades America* by Wendell Thomas, published in 1930. With but few exceptions, the religions of India have been shamefully degraded and made to serve petty and personal ends by their turbaned exponents in America.

Until recently, Buddhism has been relatively unknown in the West, so far as the masses of people are concerned, but with the increasing number of travelers to Tibet, it, too, is receiving attention. "Explorers" are returning from the Asian plateau to don long robes and become "lamas" to the bored and curious sophisticates and the gullible seekers for new "gods." Yoga exercises of various

sorts, promising occult or psychic development and powers, are generally the magnet used to attract followers by these practitioners —a sure sign of their "Red Cap" affinities.

Less offensive than the wares of these downright charlatans, but certainly of no educational value to the reading public is the version of Tibetan Buddhism which *Life* for Jan. 8 presented to its readers. Illustrated with examples of Buddhist art belonging to Quentin Roosevelt, grandson of Theodore, this account of Buddhist beliefs is obviously founded on the materializing interpretations of western orientalists, and presents the usual misconceptions. Buddhism is described as a philosophy of "agnosticism" and "despair," the only escape from human suffering and the weary cycle of rebirth being a Nirvana which is simply "cessation of life and pain." The explanation of a painting of the Wheel of Life gives the impression that Buddhist "heavens" and "hells" are quite material places, providing pleasures and torments similar to those described in Christianity. In short, *Life* has plausibly misrepresented the greatest religion in the world. The reader, having learned "all about Buddhism," may then turn the page to an engrossing study of the latest reducing exercises!

The approach of contemporary scholarship to Buddhism is a cheering contrast to this popular presentation. The learned men of this generation are far freer of the Christian bias than were orientalists of the nineteenth century, of whom H. P. B. wrote so disgustedly. A recent Bulletin (No. 28) of the American Council of Learned Societies contains a review of the culture of the East that would have delighted her heart with its impartiality and striving to do full justice to the greatness of oriental civilization. The writer, W. Norman Brown, discussing Indian art, says of the Asoka period: "Sculpture was not meant to be a reminder of a human being or of an apotheosis of man, but of something abstract, spiritual, in its reality beyond apprehension by the senses, an ocular reference to universal knowledge that might somehow become comprehensible to humanity." Mr. Brown's essay on "India and Humanistic Studies in America" should be read by all students who desire to appreciate the new spirit in modern oriental research.

Another means by which the American people are becoming acquainted with Buddhist ideas is through the efforts of persons who have been converted to the Buddhist religion. An indefatigable worker in this cause was the late Dwight Goddard, who died on July 5 of last year after devoting his life to spreading Buddhism in America. He was the author of several books and pamphlets

and shortly before his death issued a monument of devotion to Buddhism, *The Buddhist Bible,* a large work containing excellent translations of the most important Buddhist scriptures.*

Theosophists can only be grateful for so fine a compendium of Buddhist thought, but they must nevertheless regret the priestly aspect of the Fellowship Following Buddha, the group in which Mr. Goddard was a leading figure. Among its members are the "Homeless Brothers" who have "forsaken the conventional life and responsibilities of the world" to lead lives of meditation and to "practice the Dharma, live the Dharma, teach the Dharma." The question, of course, is whether or not the true Dharma of western aspirants is retirement from the world and its cares. The Homeless Brothers are supported by contributions from lay members, and an appeal for funds for this purpose is put in the words of Evans-Wentz: "The Homeless Brother who in solitude doth meditate and the Layman who doth provide his sustenance, do thus each win the chance of gaining Buddhahood!" Here is a distinctly unnatural transplantation of the method of the East to western soil, where more than anything else, spiritual self-reliance is needed, not "homeless brothers" to revere.

According to an American Buddhist clergyman, there are more than 100,000 Japanese Buddhists in the United States, mostly of the Shin Sect, and about 20,000 Caucasian Buddhists, some Zen, some of the Southern School.† These Buddhist sects have priests and churches, or rather temples, and conduct regular services. The remark of an eminent American Buddhist, that "Our Lord Buddha has innumerable skillful devices and unlimited resources so we may go forward in faith," reveals a tendency to the personal God idea among these western Buddhists.

If, as H. P. B. has said, "the religion of the ancients is the religion of the future," the spread of old religions in the West is doubtless part of the preparation for the future. A Master of Wisdom wrote: "Buddhism, stripped of its superstition, is eternal truth; and he who strives for the latter is striving for Theosophia, divine wisdom, which is a synonym of truth." This must refer to the *spirit* of Buddhism, which has its most recent incarnation in the teaching of Theosophy. The spread of Buddhistic philosophical conceptions, as a leaven to western provincialism in philosophy and western materialism, is quite different from the spread of Buddhism as a sectarian religion. The object of the Theosophical Movement

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* Second edition, revised and enlarged. 677 pp. Thetford, Vermont, 1938. $3.

† *Buddhism in England,* Nov.-Dec., 1938.

is to bring about a recognition of the truth in *all* religions, not the elevation of one sect, however superior to others, to the position of exclusive authority.

After considering these things, it will be well to turn to some of H. P. Blavatsky's statements regarding Buddhism, in order that there may be a just appreciation of the influence of Buddhist thought, even as it exists today. Buddha, she wrote, in *The Theosophical Glossary,* gave to the world

> . . . the only *absolutely bloodless* religion among all the existing religions: tolerant and liberal, teaching universal compassion and charity, love and self-sacrifice, poverty and contentment with one's lot, whatever it may be. No persecutions, and enforcement of faith by fire and sword, have ever disgraced it. No thunder-and-lighting-vomiting god has interfered with its chaste commandments; and if the simple, humane and philosophical code of daily life left to us by the greatest Man-Reformer ever known, should ever come to be adopted by mankind at large, then indeed an era of bliss and peace would dawn on Humanity.

Of the actual teachings of Buddhism, she says:

> Real Buddhism can be appreciated only by blending the philosophy of the Southern Church and the metaphysics of the Northern Schools. If one seems too iconoclastic and stern, and the other too metaphysical and transcendental, even to being overgrown with the weeds of Indian exotericism—many of the gods of its Pantheon having been transplanted under new names to Tibetan soil—it is entirely due to the popular expression of Buddhism in both Churches. Correspondentially they stand in their relation to each other as Protestantism to Roman Catholicism. Both err by an excess of zeal and erroneous interpretations, though neither the Southern nor the Northern Buddhist clergy have ever departed from truth consciously, still less have they acted under the dictates of *priestocracy,* ambition, or with an eye to personal gain and power, as the two Christian Churches have.

There are doubtless many in America and Europe whose Karma will lead them to find that of all religions, "even exoteric Buddhism is the surest path to lead men toward the one esoteric truth." That Col. H. S. Olcott, president of the parent Theosophical Society—and who may be taken as a symbol of the great third section of the Movement, the great, struggling, faltering while aspiring "orphan," Humanity—that he, who was all that was good in *human* nature, but embodying also its weaknesses, strove to revive Buddhism—was, in fact, a Buddhist—has a profound significance. One of the

most hopeful signs of the century is the growing interest in Buddhism in the West, as part of the general turning of the occidental mind to the philosophical treasures of the Orient.

Considering the sublime character of Buddhist scriptures, their enlightening and purifying influence, theosophists will understand the extensive use made of them by H. P. Blavatsky. *The Voice of the Silence* appears to have the coloring of Buddhist modes of thought, but this is because of the fidelity of Buddhistic conceptions to the Wisdom-Religion, the primal source of *all* true religion, and not because Theosophy is in any sense Buddhism. The Theosophy of H. P. B. is the same wisdom as the teaching of Buddha, the way of salvation. But Theosophy is not only the saving truth, it is the Truth Militant. H. P. B. brought more than a doctrine—she brought and was herself an incarnation of the *dynamic of universal service*. The Brotherhood she founded was, and indeed, in a hidden sense, is, world-wide. One can not be a Theosophist "by himself." The active work of theosophists in the world, as their primary mission, is made clear in the hallowed words of a Great Teacher:

> It is time that Theosophy should enter the arena. The sons of Theosophists are more likely to become in their turn Theosophists than anything else. No messenger of the truth, no prophet has ever achieved during his life-time a complete triumph—not even Buddha. The Theosophical Society was chosen as the cornerstone, the foundation of the future religions of humanity. To achieve the proposed object, a greater, wiser, and especially a more benevolent intermingling of the high and the low, the alpha and the omega of society, was determined upon. . . . Let us understand each other. He who does not feel competent to grasp the noble idea sufficiently to work for it, need not undertake a task too heavy for him. But there is hardly a Theosophist in the whole Society unable to effectually help it by correcting erroneous impressions of outsiders, if not by actually propagating the ideas himself. Oh! for noble and unselfish men to help us effectually in that divine task! All our knowledge, past and present, would not be sufficient to repay them.

ON THE LOOKOUT

Spurt in Psychic Research

Public interest in psychic powers and phenomena continues to increase. The New York *Herald Tribune* for March 10 devoted much space to an account of experiments conducted last year by the Boston Society for Psychic Research, in which pictures were mentally transmitted over the width of continent and ocean. The writer, John J. O'Neill, reports that between 10 and 15 per cent of those who took part in the tests were successful in describing the pictures concentrated upon by the mental senders. The method followed in these experiments was that on each Tuesday afternoon at 5:30 o'clock a person in the Boston headquarters of the Society concentrated on a certain picture selected at random at the time. Participants all over the United States and some in Europe would attempt to "see" the picture at that hour. The tests were carried on for thirty-two weeks, with from thirty-eight to 106 persons sending in reports of what they received. According to the Society, up to 50 per cent of the participants in some tests indicated in various ways that they had received an impression of the picture.

It is unfortunate that the hidden powers in man should be studied with what appears to be simply the motive of curiosity. The step from these practices to the passivity of mediumship is often but a small one, and only a little investigation of the literature of this type of research shows its spiritualistic affinities. The wonder, of course, is that sensible people should find it necessary to go through all this rigamarole to "prove" what almost everyone knows from personal experience. The man who has not had some sort of telepathic experience is rare indeed.

A Journalist on Telepathy

William Randolph Hearst, publisher of the Los Angeles *Examiner,* recently devoted his column of comment, "In the News," to a discussion of psychic powers. (*Examiner,* April 9.) After reviewing instances of telepathy and prophetic and warning dreams that have come to his attention, Mr. Hearst concludes in a spirit distinguished by its open-mindedness:

> Is not the indivisible unit of matter a fragment of force, and is not infinite mind in all probability the ultimate source of all forces?

> We in our infantile stages of development are advancing through the primary schools of learning and experience, and dealing merely with the physical and mechanical phenomena.
>
> Undoubtedly some day and perhaps soon we will graduate into the higher study and sphere of mentality and the soul.

Common Sense Explanation

Mr. Hearst's speculative account of the rationale of telepathy is generally correct:

> Thought is a force. It registers vibrations and waves, and waves of thought like any other force should be susceptible of transmission and of magnetic or mechanical registration.
>
> The controlled transmission of light waves and heat waves and sound waves and electric vibrations, together with sensitive systems for selective radio and photographic transmission and reception, were all unbelievable until an Edison or a Marconi or a Steinmetz or a Farnsworth made them possible and practical.
>
> Now they are commonplaces and we can hardly believe that they were ever undiscovered or that the world ever existed without them.
>
> In fact, the world did not exist without the vibrations, but merely without our ability to detect them, select them and employ them.
>
> In the same manner vibrations of thought probably exist all around us, but we are unable discriminatingly to detect them and bring our minds into harmonious contact with them.
>
> Yet that contact even now occasionally exists between minds that are "en rapport," or in plain English, tuned in to send and receive messages.

"Waves" of Thought

The law of telepathy, as stated in the *Ocean,* is "that if two minds vibrate or change into the same state they will think alike; or, in other words, the one who is to hear at a distance receives the impression sent by the other." Mr. Judge speaks also of "the finely pictured web which the vibrating brain of man weaves about him." The New York *Times* of Dec. 17, 1939, reported that Dr. George L. Kreezer has found definite evidence of a direct relationship between electrical conditions in the brain and intelligence. Dr. Kreezer is in charge of brain wave research at Cornell University. His studies with the sensitive electro-encephalograph show that "every person has his own characteristic kind of record, not as uniform as fingerprints but often constant enough to identify him. The electric

pattern changes with thought, emotion, sleep, opening and closing the eyes and with certain kinds of illness." In these experiments is vaguely shadowed the fact that "the human brain is an exhaustless generator of force." Such investigation will never lead to self-knowledge, but it *may* bring some to the realization that there are forces at play in the human being which can be understood by other means.

TELEPATHY IN PHYSICS

Sympathetic journalists have been leaders in gaining attention for the evidence in favor of psychic powers unrecognized by science. John O'Neill, science editor of the New York *Herald Tribune,* has revealed a distinct interest in matters psychic, and Waldemar Kaempffert of the New York *Times* has several times spoken for the reality of unexplained telepathic phenomena generally. Of particular interest is the latter's article, "ESP in Physics," in the *Times* of Feb. 25, reporting the contents of a letter sent to the *Physical Review* by two physicists of the University of California, Drs. W. M. Latimer and H. A. Young. An event occurring during their work in research together (too technical for brief description) caused them to raise by implication the question whether telepathy and clairaudience may not play a part in physical experiments in which two researchers participate. Mr. Kaempffert remarks:

> So far as this observer knows this is the first time that respectable physicists have suggested that "some unknown mode of communication" must be allowed for when two observers are engaged as partners in a piece of research.

The letter of Drs. Latimer and Young, while carefully refraining from the use of any such terms as "extra-sensory perception," leaves little doubt of their own speculations in this direction. Mr. Kaempffert probably quoted them with a measure of satisfaction, having himself been the target for materialistic attacks by psychologists who think his interest in the telepathic experiments of Dr. Rhine at Duke University is "unscientific" and "misleading" to the public.

DECLINING SKEPTICISM

The changing attitude toward the psychic nature of man on the part of journalists and scientists bespeaks the general direction of scientific research in the future. While still in its phenomenalistic stage for all but the very few, this movement of inquiry into realms unknown cannot help but have philosophical repercussions, just as

sense-dependent empiricism laid the foundations of modern materialism. During the Middle Ages, many of the men who liked to think of themselves as scientists indulged in wild speculations, concealing their ignorance of facts with a mystical jargon. When inductive science brought material success, a wave of reaction against deductive methods in the natural sciences set in; laws in these sciences became a description of phenomena, not an "explanation" of their causes. He who searched for the meaning of phenomena was looked upon as at best a visionary philosopher, at worst, a fanatic or a fool. But now the pendulum swings in the opposite direction. Today well-known scientists dare to philosophize about their field, assigning to "intangibles" a significant role in the universe.

"Soul-Structures"

A remarkable instance of this trend is shown in the recent book, *The Soul of the Universe,* by Gustaf Strömberg, an astronomer of renown stationed at Mt. Wilson Observatory. Starting on very solid ground of conventional science, that is, with the universally recognized electomagnetic waves which accompany an electron, and seem to guide it, he postulates a similar "immaterial wave of organization" for the cellular organism. This wave has a structure in space-time—or, as one acquainted with Theosophical teaching would say, in the Astral Plane—and Dr. Strömberg calls it a "genie." More complex structures, such as man, have their genie, and there are subordinate genii for each organ, cell and electron; similarly, the universe, which is in constant evolution, has its supreme genie, the World Soul.

Egoic Field of Unity

According to Dr. Strömberg, mind and matter are two aspects of cosmic unity—a thought familiar to the most superficial student of Theosophy. The following is taken from the review of *The Soul of the Universe* in *Time* for April 29:

> . . . Memory is independent of matter. If it can survive replacement of (cerebral) matter during life, why should it not survive the dissolution of the brain cells after death? "The memory of an individual . . . is written in indelible script in space and time—it has become an eternal part of a Cosmos in development."
>
> Dr. Strömberg defines the soul as "the ego of a human being . . . something which gives unity to the mental complex of a

man." Though immaterial, he considers it a real structure, like a field of force. Therefore it cannot be annihilated without violating a law analogous to the purely physical law of conservation of mass and energy. Exactly what experiences the human soul may have after death, the author does not presume to say. He thinks the transmigration of souls entirely possible.

On the problem of life on earth: "As the matter in the earth is part of the original matter in the universe, so the life on the earth is part of the original life in the universe."

Among leading scientists commenting approvingly on the book is Dr. Albert Einstein, who wrote: "What impressed me particularly was the successful attempt to pick out of the bewildering variety of researches that which is of essential value, and to present it in such a way that the concept of the Oneness of all knowledge can for the first time be stated with definite intent." That astronomers now write on immortality, and agnostics like Einstein approve, are both signs of the time. Confused as are some of Dr. Strömberg's ideas, his book is nevertheless a strong manifestation of the "tidal wave" toward freedom from the old materialism. And though his book is far from being the "first" which suggests that knowledge is *one*—as Dr. Einstein could discover with very little trouble—the earnest contention for this unity, so long scouted in scientific thought, should win a strong chorus of support from the many scientists who are literally "sick and tired" of materialism.

ATLANTIS AGAIN

The annoying spectre of Atlantis continues to haunt the orthodox scientific world, whose anthropological spokesmen still loudly proclaim their faith in the ascent of humanity from a relatively recent species of prehistoric cave men. Robert B. Stacy-Judd, a Los Angeles architect, writes an article entitled "Going Back to Atlantis," in the Los Angeles *Times Magazine* (Feb. 25), wherein he mentions his sixteen-year-old battle with enthroned scientific authority. He became interested in Atlantis entirely by "accident." His theories were "virtually forced upon him as a result of his being fascinated by the works of the ancient Mayas." Through the chance reading of a description of their architecture in Yucatan, he was inspired to reproduce Mayan motifs in his own architectural designing. Finding striking parallels between certain Mayan designs and pictures discovered in caves on the coast of Spain, he was led to consider the theory of an ancient Atlantic continent answering to the description given by Solon and Plato, and that its progressive

submergences caused migrations to the region of Central America. The interest of the architect was so intense, inspired by a feeling when first visiting a Mayan city that, as he says, "I had been here before," that he published a lengthy volume on the theories he had himself adopted, calling his work *Atlantis—Mother of Empires.*

Submerged Table Land

Anticipating the amused disdain of current archeological opinion, Mr. Stacy-Judd states the credentials that he believes give him the right to theorize: Sixteen years of study, including philology, philosophy, religion, archeology, ancient history, mythology and ethnology, plus a trip to virtually every country in the world, in which he followed the routes taken by ancient civilizations.

Current anthropological and archeological theory prides itself on its basis of facts. Mr. Stacy-Judd points to a very large and undisputed fact ascertained by soundings made jointly by the governments of the United States, England and Germany, disclosing "a great table land stretching from near the coast of Ireland to Africa and thence close to the junction of the two Americas. This table land is 9,000 feet above the surrounding ocean bed." As additional evidence that this territory was once part of Atlantis, Mr. Stacey-Judd notes that the land "was above the water at one time, for from its depths has been brought up lava—lava that was cooled by air!" (See the similar conclusions of Prof. Spence, Theosophy XIV, 23.)

A Lack of "Scientific" Interest

Why does not such testimony call forth widespread investigation? The reason is simple, if unflattering to science: Were the theory of Atlantis accepted, anthropologists would confront the disconcerting spectacle of a towering civilization in the days when humanity, according to modern anthropology, had not yet branched off from its animal forebears. The cave men would then merit attention only as the degraded off-shoots of the truly human race, and the picture of man's laborious ascent in culture from his cave days would be tearfully removed from its decorative position on academic walls. A great deal of painstaking effort has created that picture, and scientists, much like other mortals, are not enamoured of the possibility that the track they have been assiduously following led them directly away from their intended destination. Nonetheless, scientifically "dammed facts" continue to burst through the barriers of preconception.

A SERIOUS CASE OF OPEN-MINDEDNESS

The *Saturday Evening Post* for Dec. 24, 1938, published an article with the title "Plowman of the Deep," recounted by a man whose practical acquaintance with the Atlantic ocean bottom is necessitated by his profession of trans-Atlantic cable layer. The story, told by Victor Rowland to W. H. Depperman, contains a significantly unprejudiced paragraph:

> Does the bottom of the Atlantic Ocean hold the solution to the disappearance of that mighty and splendid island described by Plato more than 2300 years ago, and by Pliny, by Proclus, Diodorus Siculus and by modern theosophists?
>
> Was the lost Atlantis, said to be twelve days' journey beyond the Pillars of Hercules, the true antediluvian world of the Garden of Eden, the Elysian Fields and the Garden of Hesperides wherein mankind dwelt for ages—theosophists say upwards of a million years—in peace and happiness?
>
> Today the enigma of the legend of the lost Atlantis still lies unsolved at the bottom of the Atlantic Ocean.

LIVING CRYSTALS

Dr. W. M. Stanley of the Rockefeller Institute, best known to the public for his virus research, is quoted in the New York *Times* of Jan. 28 as saying: "Crystallinity is simply a structural regularity . . . and actually there need be no incompatibility between the living and crystalline state." Biologists have long held that the virus which produces the mosaic disease of tobacco cannot be alive because it has a crystalline form. This view, Dr. Stanley suggests, is a mere prejudice, based on the fact that the life we see about us, or under the microscope, is not geometrically regular in structure. The *Times* article notes the similar opinion of N. W. Pirie, an English investigator, who believes that "life" is simply a matter of degree. This, for the theosophist, is a rather inverted way of putting it. Why not say that the kingdoms of nature which science regards as "alive" or "organic" are degrees of *life*—a life which manifests in the mineral kingdom through lower forms. Life is not a condition of matter; matter is a condition of life.

THE CELL THEORY

Several of the hard and fast scientific doctrines which have circumscribed the progress of true discovery for generations are showing signs of breakdown. The suggestion that crystals are living is one illustration of this tendency; another is found in an article in

Science for March 15, "The Case Against the Cell Theory," by Prof. Basile J. Luyet of St. Louis University. Theories themselves, this writer observes, "are dangerous tools which should be put into the hands of those only who know enough never to believe in them." He examines the famous Cell Theory formulated 100 years ago by Schleiden and Swann, showing that in certain cases it differs from fact. There are forms of life which do not exhibit a cellular structure—the *Mycetozoa,* for instance, which consist of large masses of living matter, "sometimes as much as a pound, spread in a thin layer over an area of several square feet." In the *Mycetozoa,* or Slime Molds, all the vital functions—nutrition, respiration, secretion, locomotion and reproduction—are performed with no trace of any division of the organism into cells (not, at least, in the plasmodium stage). Here is striking evidence that cellular structure is not necessary for the carrying out of the living processes. (Some biologists are uncertain whether the *Mycetozoa* are plants or animals.) After enumerating other exceptions, Prof. Luyet comments: "The theory of Schleiden and Swann appears to the modern unbiased observer as a rather daring and unjustified generalization." He proposes a new theory to replace the old one, in which the cell would "cease to be the 'fundamental structural and functional unit' of any living matter and the cellular structure would become, in the last analysis, simply one of the various methods used by nature to partition a large mass of protoplasm."

Nothing is "Inorganic"!

Crystals do not exclude life, cells are not required by life—when will it be recognized that life itself is the prior reality, upon which all its forms depend, whatever they may be? This is the direction suggested by every new scientific discovery at all related to the problem of vital functions. As H.P.B. told the scientists of her day:

> There is one error which is commonly made, than which there can be no greater error in the views of an occultist. A division is made between what you call animate and inanimate objects; as if there could be such a thing as a perfectly inanimate object on earth! . . .
>
> From one point of view, the distinguishing mark between what is called the organic and the inorganic is the function of nutrition, but if there were no nutrition how could those bodies which are called inorganic undergo change? Even crystals undergo a process of accretion, which for them answers the function of nutrition. In reality, as Occult philosophy teaches

> us, everything which changes is organic; it has the life principle in it, and it has all the potentiality of the higher lives. If, as we say, all in nature is an aspect of the one element, and life is universal, how can there be such a thing as an inorganic atom! (*Transactions,* 124.)

RESPONSIBILITY AND FREEDOM

Students familiar with H. P. B.'s article, "Psychic and Noëtic Action," will be interested in a recent discussion of free will and responsibility by Douglas Clyde Macintosh of Yale University. Writing in the *Journal of Philosophy* for Jan. 18, he shows that a man can have no moral responsibility "for an act which was made inevitable by factors, inner and outer, which were themselves predetermined by other factors, and so on back to events and factors antedating the agent's conscious existence." Neither can there be any responsibility for "a mere uncaused, chance occurrence."

ANSWER IF YOU CAN

Mr. Macintosh tells of a recent doctoral thesis on the subject of free will, in which the writer was able to discover no rational basis at all for responsibility in human conduct. How, then, the Yale professor queries, could this prospective Ph.D. merit his degree? If the thesis be good, its writer, on his own account, is not "responsible"! This occurred to one of the examiners, who facetiously addressed the candidate as follows:

> Here's a question; if you can, sir,
> Please supply a simple answer.
> Was your novel dissertation
> Product of predestination,
> Result of native drive and knowledge,
> Effect of home and school and college?
> Why, if so, should *you* have credit,
> Even though your name may head it?
> Why not graduate some actor
> Who died ere you became a factor?
> If, however, no causation
> Accounts in full for its creation.
> Why should *you* be made a doctor,
> And not some other don or proctor?

Mr. Macintosh solves the problem with *self*-determination, cutting the Gordian Knot of modern speculation with plain common sense. He says:

Self-Transcendence

> In addition to whatever partially predetermining factors there may be, may not the conscious, purposing self of the moment of decision, of choice and action, be, within whatever limits, a creatively determining factor in the voluntary deed? Why should we suppose that it must be the character and thought of the self immediately preceding the action which is operative in it, rather than the strictly contemporaneous character and thought? If character changes at all—and it certainly does—why may it not change to some extent *in the decision,* and not simply before it or after it? May not partial self-transcendence be of the very nature of free decision, at least in every instance of momentous deliberate decision?
>
> The character of the thinking, willing self is, in its thinking and willing, in process of change. The character of the self is changing, coming to be, *in* its conduct, and not simply as an after-effect of its conduct—certainly not as a mere result of completely determined conduct. . . . We are participants in the causal process, agents who as causes do something to bring about the emergence of the effect.

"Habits" of Nature

The Yale professor's view of causation in nature suggests the Theosophic teaching of intelligence behind every event. He says:

> Ordinary physical process does not seem to me to be personal or even conscious [from the context, Mr. Macintosh here seems to deny only a "personal" or anthropomorphizing idea of consciousness]; nor, apart from human and other animal behavior, does it seem to be such as necessarily to involve personal or other conscious causation *at the time.* As law-abiding and essentially predictable it suggests something of the nature of habit, rather than of conscious creativity.

This recalls the statement credited to Zeno by Laertius: "Nature is a habit moved from itself, according to seminal principles; perfecting and containing those several things which in determinate times are produced from it, and acting agreeably to that from which it was secreted." Mr. Macintosh continues:

> I am quite willing to consider the suggestion that, as much of what we call "our own" unconscious habitual activity was in an earlier situation consciously originated, so also cosmic habit may have been consciously and even teleologically originated "in the beginning" and at various times since the primordial beginning; but this does not necessarily mean that each and every subsequent

instance of physical causation involves conscious, personal creativity.

ORIGIN OF "INSTINCT"

Major R. W. G. Hingston, an English naturalist who spent long years studying insects in the tropical jungles of India, regards animal instincts as similarly formed "habits." He believes—

> That instinct began in a reasoned act. That this act, through being continually repeated, tended to lose the reasoned element and to become more and more unconscious. . . . Of course, this view will be immediately rejected by those who see in the insect world no sign of intelligent behaviour. But I am confident that intelligence exists. In fact, not only do I find intelligence, but I regard the deliberate acts of intelligence as the source of every instinct. (*Instinct and Intelligence,* pp. 172-3.)

The laws of nature, whether considered in their physical aspect of motion, attraction and repulsion, or as represented in the patterned habit and instinct of the vegetable and animal kingdoms, all show forth *design*—the objective evidence of intelligence of some sort. It is this which brings thoughtful men to conclusions like those of Mr. Macintosh and Major Hingston. Two passages from *The Secret Doctrine* give the occult explanation hinted at in the "teleological" origination of the former, and the "intelligent cause of instinct" suggested by the latter:

MECHANICIANS AND BUILDERS

> The essential faculty possessed by all the cosmic and terrestrial elements, of generating within themselves a regular and harmonious series of results, a concatenation of causes and effects, is an irrefutable proof that they are either animated by an *extra* or *intra* INTELLIGENCE, or conceal such within or behind the *manifested veil.* Occultism does not deny the certainty of the mechanical origin of the Universe; it only claims the absolute necessity of mechanicians of some sort behind those Elements (or *within*). (I, 594.)
>
> . . . there are centres of creative power for every ROOT or parent species of the host of forms of vegetable and animal life. This is, again, no "special creation," nor is there any "Design," except in the general "ground-plan" worked out by the universal law. But there are certainly "designers," though these are neither omnipotent nor omiscient in the absolute sense of the term. They are simply *Builders,* or Masons, working under the impulse given them by the ever-to-be-unknown (on our plane) Master Mason—the ONE LIFE and Law. (II, 732.)