In measure as the mind obeys the hidden Self, it frees itself from the impress of outer things; when it has rid itself completely of outer desires, the realization of the Self arises, free from all impediments.

—Crest Jewel of Wisdom.

THEOSOPHY

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THE GUIDANCE OF ROBERT CROSBIE

ANALOGY," wrote H. P. B., "is the guiding law in Nature, the only true Ariadne's thread that can lead us, through the inextricable paths of her domain, toward her primal and final mysteries." The method of H. P. B., the teacher, was analogy, the only mode of instruction that has an *inductive* influence on other minds, stirring them to independent investigation and self-reliant

perception.

The living, electrical energies of Nature are communicated, from one to another form, by induction; the octaves and intervals which calibrate and order her vast diversity each send out their own vibrations, each renew in other measures the forces which come to all in manifold paths. So with the mind of man. The reality of universal ideas is grasped only as *Manas* perceives their informing presence, their creative reflection on every plane of consciousness

and in every natural process.

The Teachers, then, have each performed a dual task: They have stated the Truth in its unalloyed character of spiritual verity, as high philosophy in the language of the soul; but also, they have woven the same ideas into a fabric of correspondences, joining soul-knowledge with the hopes, the joys and fears of earthly life—a thousand Ariadne's threads leading onward and upward, converging in the "Ring Pass-Not," where finite thought must cease, but

where Self-knowledge begins.

Robert Crosbie was a master of analogy. The power of induction resident in his mind and heart, manifest in his thought and action, generated and guided into harmonious action The United Lodge of Theosophists. For him, Theosophy was in everything in life, in "every phase of our changing days and years." In these terms, and for the service of humanity, he reproduced the philosophy of H. P. Blavatsky, the devotion of William Q. Judge. There are lines of correspondence and analogy in the life of Robert Crosbie to guide the theosophists of this generation. But they must be known, like the undisclosed Veda, each one for himself.

GREAT THEOSOPHISTS

GIORDANO BRUNO

ABOUT twelve miles from Naples, on the northeastern slope of Mount Vesuvius, stands the little town of Nola. First settled by a colony of Chalcidean Greeks, it became a prosperous and important place during the days of the Roman Empire, and many Roman nobles built their palaces within its walls. There in 1548—seven years after the death of Paracelsus—Giordano Bruno was born. His birth was heralded by two important events which were through their subsequent effects to determine his tragic fate. In 1541 Ignatius Loyola was elected as the first general of the Society of Jesus. In 1543 Copernicus' De Revolutionibus, which vindicated the Pythagorean system by re-

establishing the heliocentric theory, was published.

The Bruno family was a distinguished one, and the child who was to immortalize the name was called Philip, after the lord of the manor. At the age of ten the boy was sent to school in Naples, and in his fifteenth year he entered the Dominican monastery, where he was given the name of Giordano. Almost immediately he began to rebel against those priests who "attempted to draw me from worthier and higher occupations, to lay my spirit in chains, and from a free man in the service of virtue to make me the slave of a miserable and foolish system of deceit." He showed his independent spirit by removing all the pictures of the saints from his cell and by advising a brother-monk to give up reading the "Seven Joys of Mary" and occupy himself with more serious forms of literature. Shortly after entering the monastery Giordano procured a copy of Copernicus' book and at once recognized the truth of its statements. He realized that there must be some form of philosophy which would be equally scientific, and found what he was seeking in the works of Pythagoras, Plato and several of the Neoplatonists.

Despite his inner rebellion, Giordano was unable to leave the monastery, and at the age of twenty-four he took holy orders and said his first mass. Shortly afterward he wrote a satirical play, in which he painted a vivid picture of the depravity which surrounded him. This caused a charge of heresy to be brought against him by the Provincial of the Order. Realizing his danger, and hoping to escape the horrors of the Inquisition, Bruno fled from the monastery and began his wandering life, which lasted for fifteen years.

Bruno was then twenty-eight years old. He felt that he had found the truth, and admitted that he was "enchanted with the beauty of her countenance and jealous lest she be misrepresented, slighted, or profaned." He went first to Genoa, where he supported himself by giving lessons in grammar and astronomy, and then to Geneva, where an Italian nobleman became interested in him and helped him disseminate his ideas. Geneva, however, was still too Calvinistic to listen to the liberated thought of Bruno, and so he left for France, obtaining his degree of Doctor of Theology in Toulouse and reaching Paris in his thirty-third year. His first lecture in Paris brought him the offer of a professorship in the University, which he was obliged to decline because his position as an excommunicated monk prevented him from saying mass. The King, hearing of his dilemma, offered him an "extraordinary" professorship, which gave him the opportunity to reside in Paris and devote some of his time to writing. His first book, Shadows of Ideas, was soon finished and dedicated to the King. This book, based upon Plato's Republic, was his first attempt to portray the essential unity of the universe.

When Bruno was thirty-five years old he went to England with a letter of introduction from the King of France to his London Ambassador, who immediately invited Bruno to live with him. He was frequently taken to Court and became a warm friend of Queen Elizabeth, who openly expressed her admiration for his unusual accomplishments. Encouraged by his success in London, he then went to Oxford, where he introduced himself to the University by giving lectures on the immortality of the soul and the doctrine of reincarnation as well as on the Copernican theory. This aroused the animosity of the Oxford professors, and when Bruno defended his theories in a public debate he was prohibited from giving any further lectures and asked to leave the city.

On the evening of Ash Wednesday, 1584, Sir Fulke Grevil invited a number of his friends to his London home to meet Giordano Bruno. The discussion which took place on that evening, which Bruno afterwards published under the title La Cena de le Ceneri, took the form of a Theosophical lecture. He began his talk by declaring that Space is filled with a countless number of solar systems, each with its central sun and planets. These suns, he said, are self-luminous, while the planets shine by reflected light. He then spoke of sun-spots, of which he had learned from Nicolas de Cusa, and affirmed that our solar system has a forward motion in

space.

Where Copernicus' system was heliocentric, Giordano Bruno's was theocentric. God, he said, "is the inner principle of all movement, the one Identity which fills the all and enlightens the universe." He expressed his conviction that everything is contained in this One Principle, "for the Infinite has nothing which is external to Itself."

After outlining his concept of God, Bruno then proceeded to define Nature. "Nature," he said, "is a living unity of living units, in each of which the power of the whole is present." Nature may appear to us in numberless forms, but it must always be considered as united in its fundamental principle. Nature, therefore, must never be conceived as a creation, but merely as a development of this First Principle. Where, then, should we look for God? "In the unchangeable laws of nature, in the light of the sun, in the beauty of all that springs from the bosom of mother earth, in the sight of unnumbered stars which shine in the skirts of space, and which live and feel and think and magnify the powers of this Universal Principle."

This is a clear statement of the first fundamental proposition of Theosophy. As for the second, Bruno declared that everything in the manifested universe is in the process of becoming, "and this process proceeds under the fundamental Law of the Universe—the Law of Cause and Effect." This Law of Periodicity also expresses itself as the Law of Reincarnation, so that "we ourselves, and the

things we call our own, come and vanish and return again."

Giordano Bruno, the Theosophist, naturally posited the identity of all souls with the Universal Over-soul. Although he was willing to concede that there were an endless number of individuals, "in the end all are in their nature one, and the knowledge of this unity

is the goal of all philosophy."

He then proceeded to explain how this knowledge could be acquired. "Within every man," he said, "there is a soul-flame, kindled at the sun of thought, which lends us wings whereby we may approach the sun of knowledge." The soul of man, he affirmed, is the only God there is. "This principle in man moves and governs the body, is superior to the body, and cannot be constrained by it." It is Spirit, the Real Self, "in which, from which and through which are formed the different bodies, which have to pass through different kinds of existences, names and destinies."

Giordano Bruno taught that the Law of Reincarnation is indissolubly connected with its twin doctrine of Karma, or "High

Justice."

Every act performed brings its appropriate reward or punishment in another life. In proportion as the soul has conducted itself in a body, it determines for itself its transition into another body.

And then, to show that the doctrine was not original with him, he carefully explained that it had been taught by Pythagoras, Plato and the Neoplatonists, and that he was merely passing on what he

had learned from his predecessors.

In his Spaccio de la Bestia Trionfante, which was published in 1584, Bruno described the condition of a soul who had misused its opportunities on earth, saying that such a soul would be "relegated back to another body, and should not expect to be entrusted with the government and administration of a better dwelling if it had conducted itself badly in the conduct of a previous one." But, he said, there are certain individuals whose "soul-flame" has burned more brightly with each succeeding incarnation, leading them by gradual stages to perfection. "These speak and act not as mere instruments of the divine, but rather as self-creative artists and heroes. The former have the divine spirit; the latter are divine

spirits."

When the French Ambassador who had befriended him in London was recalled to Paris, Bruno accompanied him. Instead of resuming his former relations with the University of Paris, Bruno presented 120 theses to the Rector in which he showed how his own philosophy differed from that of Aristotle. He warned the French against the dangers of blind belief and begged them to bend their heads only before the majesty of truth. Having delivered this message Bruno departed for Germany, where he hoped to visit some of the more important university towns. He met with hostility in Marburg, but Wittenberg welcomed him with open arms, only the Calvinistic party in the University remaining unfriendly. When the Calvinists came into power Bruno was again obliged to seek another home. He went to Helmstadt, but here a Lutheran pastor put an end to his hopes by denouncing him publicly before an assembled congregation. He then sought refuge in Frankfortam-Main, where he was described by a Carmelite prior as "a man of universal intelligence and well versed in all sciences, but without a trace of religion."

One day Bruno visited the Frankfort fair, where he made the acquaintance of two Italian book-sellers. They became interested in Bruno's writings and took some of his books back to Venice. These came under the attention of a young Venetian nobleman, Giovanni Mocenigo, who at once inquired where the talented Bruno

could be found. Mocenigo, a tool of the Jesuits, was serving as one of the agents of the Inquisition. Recognizing an easy victim, Mocenigo wrote to Bruno, inviting him to come to Venice and promising him assistance in his work. Bruno accepted the invitation, little realizing the snare which was being so cunningly laid. As soon as he was installed in Mocenigo's house the young nobleman demanded that Bruno instruct him in the "magic arts." When Bruno insisted that he was a philosopher and scientist and knew nothing of the "magic arts," Mocenigo threatened him with the Inquisition. Bruno replied that he had done nothing unlawful, and offered to leave the house at once. That night Mocenigo, accompanied by several of his servants, burst into Bruno's room, forced him out of bed, and locked him in an upper room. The following day Mocenigo sent a written accusation against Bruno to the Inquisition, and during the night Bruno was removed from Mocenigo's house and taken to the prison of the Inquisition. This happened on May 22, 1592.

Seven days later Bruno's trial began. Mocenigo accused him, "by constraint of his conscience, and by order of his confessor," of teaching the existence of a boundless universe filled with a countless number of solar systems. He pointed out that Bruno had said that the earth was not the center of the universe, but a mere planet revolving around the sun. He accused Bruno of teaching the doctrine of reincarnation; of denying the actual transubstantiation of bread into the flesh of Christ; of refusing to accept the three persons of the Trinity, and of rejecting the virgin birth of Christ.

After these accusations had been read to the Court of the Inquisition, Bruno arose and unfolded his philosophical and scientific doctrines in detail, neither concealing nor omitting any essential feature, but speaking as simply as if he were sitting in his professor's chair talking to his pupils. He admitted his belief in an infinite universe which is the direct effect of infinite, divine power. He defined this power as Spirit, by virtue of which everything lives, moves and has its being.

Thus I understand Being in all and over all, as there is nothing without participation in Being, and there is no being without Essence. Thus nothing can be free of the Divine Presence.

This Divine Presence, he continued, is Spirit, the All-Life, and from It life and soul flow into every thing and every being. Hence Spirit is imperishable, just as matter is indestructible. As for death, it is merely a division and re-vivification, a statement of which is found in *Ecclesiastes* where it is said that "There is nothing new under the sun; that which is, is that which was."

Bruno then frankly admitted his inability to comprehend the doctrines of three persons in the Godhead, saying that he considered the Holy Ghost from the Pythagorean standpoint, as the Soul of the Universe. He also acknowledged his disbelief in the virgin birth of Jesus, but expressed his belief in the "miracles" of that great Teacher, since they all came under natural law.

At the end of the sitting, the Inquisitor turned to Bruno and again charged him point by point with the whole accusation, warning him of the serious consequences which awaited him if he did not retract his statements. Bruno looked the Inquisitor full in the face

and remained silent.

On the following day the trial was continued. This time Bruno was accused of friendship with the heretical Queen Elizabeth. He was then returned to the dungeon in the prison of the Inquisition, and for the next eight weeks was daily subjected to the rack and other instruments of torture. The records of his trial were sent to Rome, and he was summoned to the Holy City, where he arrived on February 27, 1593. There he was incarcerated in another dark and gloomy dungeon in the Roman prison of the Inquisition, where he was kept for seven years. On December 21, 1599, he was again called before the Inquisition, and asked to retract his statements. In spite of his seven years of imprisonment and torture, Bruno again replied that "he neither dared, nor would retract his statements. That he had nothing to retract, and knew not what he should retract." With these words he sealed his doom.

On January 20, 1600, the Pope ordered Bruno to be delivered over to the Inquisition. He was called into the audience chamber, forced to kneel as he listened to his sentence, and then given over to his executioners with the usual request that he be punished without the shedding of blood, which meant that he was to be burned at the stake. After listening unmoved to his sentence, Bruno rose to his full height, looked his executioners in the eye, and spoke his last sentence on earth. "It is with far greater fear that you pro-

nounce, than I receive, this sentence."

In the early morning hours of Friday, February 17, 1600, one of those processions which were all too familiar to Rome was seen wending its way to the Campo di Fiora, the place where the Holy Mother Church burned her heretical sons. Giordano Bruno was led to the pile, clad as a "heretic," his tongue bound lest he should utter one last word against the Holy Mother Church who claimed to be the living representative of that great Teacher who had said 1600 years before "Love your enemies, bless them that curse you,

do good to them that hate you." He was bound to the stake and the hungry flames began to lick at his flesh. But not one sigh of agony escaped from that noble breast. When, at the last moment of his torment, a crucifix was held before him, he turned his eyes

away.

In the Campo di Fiora, on the spot where Giordano Bruno met his fate, there now stands a monument to his memory. But more imperishable than any visible tribute is the invisible monument to Truth erected by Bruno himself—that brave, loyal and devoted friend of the "great orphan Humanity," that willing martyr to the Cause of Those whose agent and representative he was.

DESTINY AND CHOICE

Yes; "our destiny is written in the stars!" Only, the closer the union between the mortal reflection MAN and his celestial PROTO-TYPE, the less dangerous the external conditions and subsequent reincarnations-which neither Buddhas nor Christs can escape. This is not superstition, least of all is it Fatalism. The latter implies a blind course of some still blinder power, and man is a free agent during his stay on earth. He cannot escape his ruling Destiny, but he has the choice of two paths that lead him in that direction, and he can reach the goal of misery—if such is decreed to him, either in the snowy white robes of the Martyr, or in the soiled garments of a volunteer in the iniquitous course; for, there are external and internal conditions which affect the determination of our will upon our actions, and it is in our power to follow either of the two. Those who believe in Karma have to believe in destiny, which from birth to death, every man is weaving thread by thread around himself, as a spider does his cobweb; and this destiny is guided either by the heavenly voice of the invisible prototype outside of us, or by our more intimate astral, or inner man, who is but too often the evil genius of the embodied entity called man. Both these lead on the outward man, but one of them must prevail; and from the very beginning of the invisible affray the stern and implacable law of compensation steps in and takes its course, faithfully following the fluctuations. When the last strand is woven, and man is seemingly enwrapped in the net-work of his own doing, then he finds himself completely under the empire of this self-made destiny. It then either fixes him like the inert shell against the immovable rock, or carries him away like a feather in a whirlwind raised by his own actions, and this is — KARMA. -H. P. BLAVATSKY.

PSYCHIC FALLS AND PITFALLS

BSTACLES, or what so appear, confront the earnest man in whatever direction he turns his mind, as walls seem to set impassable limits to the steps of a prisoner. This is the case as well with the scientist as with the theologian, with the philosopher as the historian, the mathematician as the expert in dialectics, and so on, endlessly. Those to whom their lesser endowed fellows look as their teachers are, actually, themselves students of the mysteries, wrestling with problems which, when solved, present only glimpses of patterns still more intricate.

The theosophist can be true to his name only by bearing constantly in mind that he is a student of the greatest of all mysteries—Divine Wisdom. To the extent that he is what he professes, he will feel more, hear more, see more of what is going on in the school of life than his fellows similarly environed and engaged and as well or better equipped than himself—except in one respect: his

"attitude of mind."

If, however, the theosophist permits himself to be carried away by what he feels and hears and sees, as was the case with so many promising students of H. P. Blavatsky's day, he will lose, unconsciously to himself, the magical key, and devote his energies to establishing a school or sect of his own. The greater his success in this direction, the further he will wander from the original inspiration and objective. All history is filled with examples of such failures, the lesson of which should not be lost by theosophists of the present generation. This lesson was emphasized by H.P.B. in her earliest work, *Isis Unveiled*, in these words:

Many men have arisen who had glimpses of the truth, and fancied they had it all. Such have failed to achieve the good they might have done and sought to do, because vanity has made them thrust their personality into such undue prominence as to interpose it between their believers and the whole truth that lay

behind.

One has but to look about him in the area of the Theosophical Movement to become painfully aware of the sectarian leaders and followers who have fallen victim to the "Great Illusion"—the Maya of "personality." Surely, it behooves every earnest student not yet so enmeshed to profit by the perspective thus afforded and so avoid this first of all "the pitfalls on the way."

There is another and larger class of failures, the opposite of the kind indicated—failures which are in reality far less dangerous though far more painful. Strange as it must seem at first sight to all those in this class, the mission and the message of all true teachers is chiefly addressed to them. The reason is simple, so simple that it is generally overlooked. Recognized and admitted failure makes a man humble, while success makes him "conceited, vain of his learning, and proud," as the story in the *Upanishad* should remind us.

The earnest theosophist is, in the beginning, one who gains a glimpse of Being more inspiring by far than anything he has hitherto believed or imagined. At first, this Image (for it is but a Vision) rouses in him the "faith, hope, and charity" which St. Paul tried to picture in the words of the thirteenth chapter of his first Epistle to the Corinthians. Like St. Paul, the student sets out to become an Apostle of the "glad tidings" he has received. If, however, as is usually the case, the student, unlike St. Paul, fancies his own importance to have been raised to the level of his Vision without ever suspecting the presence in himself of "the inexorable shadow which follows all human innovations" — then he has his "fall" as inevitably as he had his elevation. Inevitably, because he has for the time forgotten that the vision came to him, not he to it, that the door was opened from the other side, not from this. So far as he knows, his experience came to him without his will, perhaps even against it, as St. Paul relates his own case. The vision itself, as he is aware, was an "innovation," and so far as human consciousness extends, that human consciousness, or "personality," was simply the Witness, not the cause of the experience.

Although he knows it not, and is for the moment in no condition to appreciate the fact, the fact none-the-less is that this second experience, like the first, comes "from the other side." The first is a lesson, the second is the evidence that he has not yet learned this First lesson, and must try again. This first lesson assumes many forms, but its general prototype is the same for every neophyte and may perhaps be outlined by analogy. The inner faculties awakened enable the experiencer to see what other men do not perceive. This he knows with certainty, but when he endeavors to impart his vision to them, he soon finds that the more he seems to himself to understand others, the less they appear to understand him. This is the universal experience, in contrast to the individual or personal one. The student has forgotten that his own experience was at first-hand, and that what he has sought to do has been to persuade other men

experience of their own. Putting the real lesson of the failure in plain words—the student has unconsciously posed as a teacher, while not even dreaming that this is the case. Just because this pose has been taken in ignorance and not by intention, the student receives the only help possible: he is undeceived by his "fall"—a fall

as unintentional on his own part as was his vision.

Negatively speaking, this fall constitutes the first real step in what is truly practical Occultism, and if reflected upon will again open the door—from this side. The reason, again, is so extremely clear that the more earnest the student, the more he will be apt to fail to see what the trouble is. If his sincerity and zeal remain unabated, he will go on repeating his error "in good faith," and each time this good faith will earn him another fall, until at last he will inquire within himself, "What is the matter with me?" Only the honest student earns this guerdon. Those who pose consciously as teachers, as a Muni or "Wise man," when they know within themselves that they are but "blind leaders of the blind," do not receive the wounds and scars which are the lot of the valiant but mistaken volunteer "on the hard and thorny path of Inyana" or Divine Wisdom.

Whether one uses the word reflection, or meditation, or any of the numerous designations for study of what are nowadays called Psychical phenomena, each neophyte has to learn for himself that study of these experiences is of more importance than the experiences themselves. If he does not learn this lesson and act upon it, he will sooner or later become a confirmed mystic, psychic, medium, or what the schools in fashion calls a "schizophrenic" — if he does

not land in Black Magic.

One of the essential elements of meditation as well as of action can be put in a single word which everyone can understand and practice. That word is honesty. All other requirements may be lacking. If so, they will all grow out of honesty, but if all the others are present and this be lacking, the powers and faculties will turn into a "Praetorian Guard." More the nature of honesty is reflected upon, more one will perceive that in it are synthesized, or are latent, all the Paramitas of perfection— "the virtues transcendental six and ten in number." This is an honest Universe, and he who would become a co-worker with Nature, whether on the Right-Hand or the Left-Hand Path, has to learn to be honest with himself. The Masters of Wisdom are honest with themselves and with all other Beings. The "Brother of the Shadow" is likewise honest with him-

self, if not with others. Neither is under any illusion or self-deception. Nature's language is unmistakable: it is Yea or Nay—Yea and Nay—in every direction. So must be the language of the Will in every student of "practical Occultism." If the student is honest with himself he will be able at any moment of meditation to know for himself in which direction he is headed or heading. If he is not honest with himself, he has no business with Occultism, and will certainly mete out to himself the destiny pictured in the first of the Fragments in The Voice of the Silence—he will become one of "Hosts of Souls" that comprise the "failures of Nature" to achieve Her purpose:

Man; man as the highest physical and ultimate form on this earth; the Monad, in its absolute totality and awakened condition—as the culmination of the divine incarnations on Earth.

The reader of these lines may have noted that only the "negative side" of the very first step in practical Occultism has been discussed: the "falls" and "pitfalls" on the Path. If so, he will naturally ask as to the positive side of this first step. Not for explanation, but as material for reflection, he might turn to H.P.B.'s article, "Dialogue Between the two Editors," originally published in *Lucifer* for December, 1888, and republished in Theosophy (III, 15).

A passage from that "Dialogue" is suggestive:

M. C. When you speak of rules it makes me want to wind up this talk by asking you what everybody wants to know who takes any interest in occultism. What is a principal or important suggestion for those who have these powers and wish to control them rightly—in fact to enter occultism?

H. P. B. The first and most important step in occultism is to learn how to adapt your thoughts and ideas to your plastic potency.

THE GOAL OF MAN

In what way does a Master differ from ordinary men? Uninitiated man is the temporary victim of Maya. Through the mysterious power of ideation he has woven about himself a network of mental fetters, a web of erroneous ideas of Self. Liberation comes from Self-Knowledge. A Master is one who has become a center of unconditioned Consciousness. He has succeeded in dissolving the mental fetters that constitute personality, that confine and dwarf the powers of Soul.

SCIENCE AND THE SECRET DOCTRINE

THE past few years have seen a remarkable increase of interest in "scientific" fiction—a type of literature which, though popularized by Jules Verne and raised to a high point in later years by H. G. Wells, had in the interim never reached a great volume of circulation. There are a number of "pulp" magazines now specializing in this field, printing imaginative stories based upon scientific or near-scientific plots. While as literature much of this material is questionable, and as science more than questionable, it is clean-a refreshing contrast to the endless stream of perfumed slime flowing through the "class" magazines of the country. In recent months some of these publications have acquired the services of scientific men of standing-some of whom have been long writing in this field under pseudonyms—and who are now presenting "fact" articles of considerable merit. Among the latter is "Catastrophe," by Dr. Edward E. Smith', which sums up the present standing of the various theories on the origin of the solar system in a very able manner.

The Theosophical reader is referred especially to pages 588-597, Vol. I, of The Secret Doctrine, as a correlative to what follows, as he will there find the Nebular Hypothesis—the only one then in force—effectively disposed of, a generation in advance of the scientific awakening to its fallacies, as well as much of importance

bearing on later and current theories.

According to Dr. Smith's account, the attempt at such theories began with Newton's four laws—the three laws of motion and gravity. Newton himself suggested the first pattern of the Nebular Hypothesis. Given an infinity of gaseous substance as the original material filler of space—in which he and Theosophy are at one he recognized that such a condition could not be stable: "Some of it would convene into one mass, and some into another . . . and thus might the sun and fixed stars be formed."2

What Newton overlooked was the fact of angular momentum, i.e., the energy of rotation possessed by the whole mass, and which had to continue in an equivalent energy of rotation possessed by these bodies after their separation into individual masses. Kant, in attempting to set up an explanation, postulated that such momen-

Astounding Science-Fiction, May, 1938. ²As they were. Compare Stanzas of Dzyan, III and IV, with accompanying commentaries (Cosmic Evolution). tum would be acquired with the mere passage of time. Dr. Smith rightly characterizes this as "indefensible," and the theory of Laplace he calls "scarcely sounder." Laplace assumed that the whole original mass had been in rotation; that is, all the matter in infinity must have been rotating in the same direction. Obviously to anyone even slightly touched by the passing wing of Einstein, such an assumption merely renders the idea of rotation void and its name without meaning. At this point Dr. Smith introduces a bit of pure metaphysics emanating from Sir James Jeans, which unwittingly exposes how far science, in its hunt for a solution, has gone adrift, not only from traditional thinking but from empirical method. Sir James assumed that in the primeval vacuum local currents of flow already existed. Says Dr. Smith:

Whether we like it or not, we will have to assume some such motion in the primeval vacuum that was infinite space. But after all, is that so hard to do? We cannot understand how that matter came into being, nor is it any part of our present task to speculate upon that pheonomenon. So, if you ask me why it should have had currents flowing within and throughout its volume, I will simply ask you back—why was it there in the first place?

Of course, such an assumption is practically unanswerable; one has only to assume any distribution and direction of such currents as may fit the case in order to account for any celestial motion. Yet here perchance intuition has come closer to the truth than all the learned mathematics of the past. According to *The Secret Doctrine*:

Occultists have nothing surely against motion, the GREAT BREATH of Mr. Herbert Spencer's "UNKNOWN." But, believing that everything on Earth is the shadow of something in space—they believe in smaller "Breaths," which, living, intelligent and independent of all but Law, blow in every direction during Manvantaric periods. . . . Science will be as far from the solution of its difficulties as it is now, unless it comes to some compromise with Occultism and even with Alchemy—which supposition will be regarded as an impertinence, but remains a fact, nevertheless. (I, 496.)

Certainly the compromise with Alchemy, however unacknowl-

edged, has taken place!

The development of the Laplace theory was closely connected with the Helmholtz theory of the origin of solar energy by solar contraction. This theory met its match in radioactivity, the predicted "death-blow to materialism" of H. P. Blavatsky. A necessity of the Helmholtz contraction was that the sun should have filled

the orbit of the earth fifty million years ago. Subsequent study of the radioactive materials has eliminated this theory by showing the earth to be infinitely older. Says Dr. Smith:

And the utter collapse of that theory and its time-scale, so firmly believed in such a few years ago, "gives me furiously to think," as the Frenchman has it, as to how long it will be before our present theories will go the same way! For, parenthetically speaking, no modern theory stands upon nearly as firm a support of widespread acceptance as did that of Helmholtz. In this connection, Dr. Heber D. Curtis, Director of the Observatory of the University of Michigan, has just informed me, in reply to a direct question: "The simple fact is that there is no entirely acceptable body of theory. The latest modification, in which one of the colliding systems is binary, is already subject to some attacks... all theories hit difficulties that seem insuperable..."

Dr. Smith's explanation of the various mathematical factors leading in turn to the collapse of Laplace's theory is worth reading in the original. Next came the Planetesimal theory—which no doubt is still considered valid by most casual followers of scientific discovery, though some years ago Theosophy (XII, 380) printed the principal mathematical objections to it.

This theory, with its variants, is based primarily on the idea that the planets originated as masses of matter torn from the sun by a passing star. But it so happens that Neptune alone possesses twenty-two times more angular momentum than such an invader could have given it, the total for the system being about seventy-seven times too much. Scientific imagination, however, is equal to the emergency! It is now postulated that the sun, at the time of encounter, must have been a binary—twin stars rotating about one another. To render this theory impregnable it is of course only necessary to make any suitable assumption as to the mass, the orbit, and the rotational speed with respect to the sun, of the missing twin, which is no longer here to speak for itself. But even the most ardent proponents of such a theory should see that it thus avoids attack at the expense of becoming meaningless.

What, one may ask, will be the finally fatal flaw to tear down this theory in turn, and what will supplant it? There are already many discrepancies in the Planetesimal theory, and others will be discovered. Since it rests upon the postulate that a solar system is an infrequent and unlikely accident, its death-blow may come through the development of new observations showing that solar systems are the rule rather than the exception; or at least that they are far too numerous to be thus accounted for; which is, of course, the fact.

Shall we then see science driven willy-nilly to embrace the Theosophical cosmogenesis? Not very likely. The human mind, even when it is "scientific," is quite able to rationalize a theory to fit almost anything it wants to believe. And, while the scientific viewpoint is relatively free from emotional bias when judging between theories of equal materiality, should the choice between physics and metaphysics be forced to an issue, most scientists would be constrained from force of habit to vote mechanist rather than anything else.

The Theosophical view regards the whole of space as a living matrix; an ever-generating womb in cyclic alternation with its opposite aspect of an all-consuming solvent, the periodic tomb of everything material. It accepts that planets, like men and animals, are born organically: that is, by a law of hereditary succession from germinal, ever-existent centers in the living ether, acquiring their physical growth by their affinities and attractions for widely diffused substance. The umbilical cords of space exist, and one day will be scientifically admitted. Meantime there is more in the invisible but potent "currents of space" guessed at by Jeans than he is likely to imagine.

Number and Form

Now, number is the expression of diversity as such, and, indeed, the expression of the inner cause of diversity, of the directions of energy; it does not result from dead, external addition, but from living inner laws that lie in the very nature of force. On the other hand, form and magnitude find their explanation only in diversity. It follows from this that a knowledge of number is first and most essential to a knowledge of the triune whole; that a knowledge of number is the foundation of a knowledge of form and magnitude—of a general knowledge of space.

Space itself, however, is by no means dead and stationary, but owes its existence to the *constant* operation of inner absolute energy. And, as space owes its existence to the cause and primordial law of all existing things, it follows that the universal laws of space underlie all that manifests itself in space and the laws of thought and knowledge themselves.

—FRIEDRICH FROEBEL.

THE PRINCIPLES OF THINGS

HERE are certain fundamental questions which rational inquiry, because of its inherent limitations, is unable to answer. The entire history of Western thought revolves around these problems, sometimes casting aside altogether the authority of reason to embrace the dogmatic postulates of revealed religion; sometimes turning to a materialism which asserts that the issues involved in such questions are subjective delusions, having no reality except in artificial systems of metaphysics. The human mind longs to encompass the universe, and finding this difficult, creates a God to provide an explanation of things which countenances no doubts, or defines the universe in such a way as to validate a hypothesis that the finite mind can contain.

Inventors of gods and worlds—the teachers of religion and science in their successive periods—appear on every page of human history, leaving for posterity the record of their thought, their Tantalus-like strivings, their Sisyphusian frustrations. With but few exceptions these spinners of systems do little to improve the speculations of their predecessors. While refinements of expression and subtleties of logic give the appearance of progress, the outcome is always the same. Finality of judgment in all ultimate questions has become a synonym of error to those who have studied the development of western philosophy and metaphysics. This is well put by Bertrand Russell:

There are many questions—and among them those that are of the profoundest interest to our spiritual life—which so far as we can see, must remain insoluble to the human intellect unless its powers become of a quite different order from what they are now. Has the universe any unity of plan or purpose, or is it a fortuitous concourse of atoms? Is consciousness a permanent part of the universe, giving hope of indefinite growth in wisdom, or is it a transitory accident on a small planet on which life must ultimately become impossible? Are good and evil of importance to the universe or only to man? Such questions are asked by philosophy, and variously answered by various philosophers. But it would seem that, whether answers be otherwise discoverable or not, the answers suggested by philosophy are none of them demonstrably true.¹

In this role of the Duryodhana of modern philosophy, Mr. Russell gives a correct evaluation of western speculation. It is

The Problems of Philosophy.

something of an achievement for him to have realized that these most important questions cannot be answered by the human intellect "unless its powers become of a quite different order from what they are now." Its forces are "insufficient." As said by H.P.B., "The philosophers themselves had to be initiated into perceptive mysteries, before they could grasp the correct idea of the ancients in relation to this most metaphysical subject"—the God-IDEA. It goes without saying that Mr. Russell, along with the rest of modern philosophers, gives little attention to even the possibility that there may be "mysteries" which would enlarge the faculties of mind so that the solution to these problems might be grasped. The tacit certainty that there is no gnosis, and no one on earth who knows, is, again in the words of H.P.B., a demonstration that "the lethal influence of materialistic thought, . . . like the deadly Sirocco, has withered and blighted all current ontological speculation."

The three philosophical enigmas chosen by Mr. Russell are in fact the subject-matter of the three fundamental propositions of the Secret Doctrine. The problem of Consciousness is paramount, and this and the other questions clearly involve the ideas of law and evolution. Theosophists speak of these propositions as self-evident, and so they are—evident to Self; but there is no immutable decree of Providence that every man must recognize the omnipresence of Life, Law, and Progress. The whole secret of spiritual evolution is bound up in the power of the human being to choose for himself his idea of reality. The Sophist Protagoras said truly, Man is the measure of all things, and he might have added that man measures variously, according to his animal, his human, and his divine nature. Nature is a chaos to sense, a cosmos to reason; it is seen as an expression of the One Spirit only when regarded with the eye of

soul.

Mr. Russell's questions, as he seems to suspect, require transcendental answers. Surely the Sages would have dissolved all human problems long ago, were they capable of explanation in the finite terms of human thought. All that the Teachers can do is point the way. This involves the demonstration that every ultimate question, when pursued to its prime elements, fades beyond the horizons of mere intellectual inquiry. "Man," wrote H.P.B., "unable to form one concept except in terms of empirical phenomena, is powerless from the very constitution of his being to raise the veil that shrouds the majesty of the Absolute. Only the liberated Spirit is able faintly to realise the nature of the source whence it sprung and whither it must eventually return"

Actual knowledge belongs only to the "thousands of generations of Seers whose respective experiences were made to test and to verify the traditions passed orally by one early race to another, of the teachings of higher and exalted beings, who watched over the childhood of Humanity." He "who would probe the inmost secrets of Nature, must transcend the narrow limitations of sense, and transfer his consciousness into the region of noumena and the sphere of primal causes. To effect this, he must develop faculties which are absolutely dormant—save in a few rare and exceptional cases—in the constitution of the off-shoots of our present Fifth Root-race in Europe and America."

In a few passages in her article, "Le Phare de L'Inconnu" (first published in 1889), H.P.B. makes clear the standard of truth which

the student must ultimately adopt:

Theosophy has this in common with ordinary science, that it examines the reverse side of every apparent truth. It tests and analyses every fact put forward by physical science, looking only for the essence and the ultimate and occult constitution in every cosmical or physical manifestation, whether in the domain of ethics, intellect, or matter. In a word, Theosophy begins its researches where the materialists finish theirs.

"It is then metaphysics that you offer us!" it may be objected, "Why not say so at once?"

No, it is not metaphysics, as that term is generally understood, although it plays that part sometimes. The speculations of Kant, of Leibnitz, and of Schopenhauer belong to the domain of metaphysics, as also those of Herbert Spencer. Still, when one studies the latter, one cannot help dreaming of Dame Metaphysics figuring at a bal masqué of the Academical Sciences, adorned with a false nose. The metaphysics of Kant and Leibnitz—as proved by his monads—is above the metaphysics of our days, as a balloon in the clouds is above a pumpkin in the field below. Nevertheless this balloon, however much better it may be than the pumpkin, is too artificial to serve as a vehicle for the truth of the occult sciences. The latter is, perhaps, a goddess too freely uncovered to suit the taste of our savants, so modest. The metaphysics of Kant taught its author, without the help of the present methods or perfected instruments, the identity of the constitution and essence of the sun and the planets; and Kant affirmed, when the best astronomers, even during the first half of this century, still denied. But the same metaphysics did not succeed in proving to him the true nature of that essence, any more than it has helped modern physics, notwithstanding its noisy hypotheses to discover that true nature. Theosophy, therefore, or rather the occult sciences it studies, is something more than simple metaphysics. It is, if I may be allowed to use the double terms, meta-metaphysics, metageometry, etc., etc., or a universal transcendentalism. Theosophy rejects the testimony of the physical senses entirely, if the latter be not based upon that afforded by the psychic and spiritual perceptions. Even in the case of the most highly developed clair-voyance and clairaudience, the final testimony of both must be rejected, unless by those terms is signified . . . the ecstatic illumination . . . of Plotinus and of Porphyry. The same holds good for the physical sciences; the evidence of the reason upon the terrestrial plane, like that of our five senses, should receive the imprimatur of the sixth and seventh senses of the divine ego before a fact can be accepted by the true occultist.

Official science hears what we say and—laughs. We read its "reports," we behold the apotheoses of its self-styled progress, of its great discoveries, — more than one of which, while enriching the more a small number of those already wealthy, have plunged millions of the poor into still more terrible misery—and we leave it to its own devices. But, finding that physical science has not made a step towards the knowledge of the real nature and constitution of matter since the days of Anaximenes and the Ionian school, we laugh in our turn.

The confession of modern thinkers—an admission hardly necessary—that philosophy is unable to explain the problems proposed by Mr. Russell candidly confirms the criticisms made by H.P.B. with respect to Western metaphysics. As to physical science, we have the statement of Dr. Robert A. Millikan, a leading American authority, that "The conception of a world made up of atoms which are in incessant motion was almost as clearly developed in the minds of the Greek philosophers of the school of Democritus (420 B.C.), Epicurus (370 B.C.), and Lucretius (Roman, 50 B.C.) as it is in the mind of the modern physicist."2 His objection to the knowledge of the ancients is that it was obtained by philosophical means—like Kant's perception of the constitution of the sun and planets. He says: "The great advance which has been made in modern times is not so much in the conceptions themselves as in the kind of foundation upon which the conceptions rest. There were scores of other rival opinions, and no one could say which was the better."

Dr. Millikan may be right if one amends his statement to read that "no one uninitiated into perceptive mysteries could say which

²Electrons, Plus and Minus (Chicago: University Press, 1935).

was the better." But the belief that the basic truths of physics were only speculative guesses to the ancient initiates is the vital error made by all modern historians of science. Is it mere coincidence that Western scientific inquiry owes its first beginnings to students of the classical thought of the Greeks? An excerpt from an address by Dr. Millikan himself shows where the fundamental principles of modern science were derived:

It was especially after the capture of Constantinople in 1453 that Greek teachers, Greek manuscripts, and Greek ideas began to flood Northern Europe, and thus the language and spirit of ancient philosophy and science became familiar to western scholars. It was because of this so-called humanistic movement that Copernicus, Leonardo da Vinci, and Galileo became thoroughly familiar with, indeed, very careful students of the work of Archimedes and his Alexandrian contemporaries and successors. So that modern science itself owes its very birth to humanism.3

These humanists, be it noted, included such men as Pico della Mirandola, Marsilio Ficino, Gemisthus Plethon, John Reuchlin, and others, who were the theosophists of the Renaissance.

Another modern writer, Morris Cohen, in comparing the merits of deduction and induction, indicates some of the sources of inspiration which caused Newton to formulate as law "the common mathematical relation which we call gravitation."

To look for and see the latter, one had to have the following in mind: (1) Galileo's law of falling bodies and Kepler's laws of planetary motion, (2) the analysis of circular motion into centrifugal and centripetal components—according to the principle of the parallelogram, and (3) the daring and unorthodox speculative idea (which Newton derived from Boehme and Kepler) of a parallelism between the celestial and the terrestrial realm.

And where did Galileo and Kepler obtain their ideas?

Similarly we know that it was the Pythagorean conception of the book of nature as written in simple mathematical terms that led Galileo to look for and ultimately see the simple law connecting the increased velocity of a falling body with the time of the fall. Tycho Brahe's astronomic tables did not in themselves suggest Kepler's laws; indeed, they suggested quite different laws to Brahe himself. Kepler could see these laws only after he brought to his vision certain speculative ideas of Apollonius [of Perga] (on conic sections) and of Plotinus.4

³Phi Beta Kappa Key, January, 1931. ⁴Reason and Nature (New York: Harcourt, Brace & Co., 1931).

This is more than recourse "to the tribunal of brute facts," despite Dr. Millikan's assurance that the method of science discards "all intuitive axioms." There would be no science today had it not been for the "illumination" of the ancients, who anticipated by ages every principle of modern knowledge. According to The Secret Doctrine,

This law of vortical movement in primordial matter, is one of the oldest conceptions of Greek philosophy, whose first historical sages were nearly all Initiates of the Mysteries. The Greeks had it from the Egyptians, and the latter from the Chaldeans, who had been the pupils of Brahmins of the esoteric school. Leucippus, and Democritus of Abdera—the pupil of the Magi-taught that this gyratory movement of the atoms and spheres existed from eternity. Hicetas, Heraclides, Ecphantus, Pythagoras, and all his pupils, taught the rotation of the earth; the Arvabhata of India, Aristarchus, Seleucus, and Archimedes calculated its revolution as scientifically as the astronomers do now; while the theory of the Elemental Vortices was known to Anaxagoras, and maintained by him 500 years B. C., or nearly 2000 years before it was taken up by Galileo, Descartes, Swedenborg, and finally, with slight modifications, by Sir W. Thomson. (See his "Vortical Atoms.") All such knowledge, if justice be only done to it, is an echo of the archaic doctrine, an attempt to explain which is now being made. How men of the last few centuries have come to the same ideas and conclusions that were taught as axiomatic truths in the secrecy of the Adyta dozens of milleniums ago, is a question that is treated separately. Some were led to it by the natural progress in physical science, and by independent observation; otherssuch as Copernicus, Swedenborg, and a few more—their great learning notwithstanding, owed their knowledge far more to intuitive than to acquired ideas, developed in the usual way by a course of study. (I, 117-8.)

The truth is that the sciences of the ancients were part of the Mysteries, known only to the initiated. This accounts for the "mistakes" in their extant writings, as well as for their apparent "materialism" in some cases. As H.P.B. explains in *Isis Unveiled*:

Indeed, the ancient philosophers seem to be generally held, even by the least prejudiced of our modern critics, to have lacked that profundity and thorough knowledge in the exact sciences of which our century is so boastful. It is even questioned whether they understood that basic scientific principle: ex nihilo nihil fit. If they suspected the indestructibility of matter at all, — say these commentators — it was not in consequence of a firmly-

established formula but only through an intuitional reasoning and by analogy.

We hold to the contrary opinion. The speculations of these philosophers upon matter were open to public criticism; but their teachings in regard to spiritual things were profoundly esoteric. Being thus sworn to secrecy and religious silence upon the abstruse subjects involving the relations of spirit and matter, they rivalled each other in their ingenious methods for concealing their real opinions. (I, 8.)

So it is perhaps natural that Dr. Millikan should suppose that the science of the ancients consisted of "rival opinions," some of which have now been shown to be correct. But in failing to consider the possibility that there may be a truer test of reality than the method of modern empiricism, present-day scientists close their eyes to the inner meanings of natural phenomena. Their inductions cannot rise above their first principles, and these are the fragments of ancient knowledge which the modern world has inherited from the past. This, also, *Isis Unveiled* shows:

Scientists who believe they have adopted the Aristotelian method only because they creep when they do not run from demonstrated particulars to universals, glorify this method of inductive philosophy, and reject that of Plato, which they treat as unsubstantial. Professor Draper laments that such speculative mystics as Ammonius Saccas and Plotinus should have taken the place "of the severe geometers of the old museum." He forgets that geometry, of all sciences the only one which proceeds from universals to particulars, was precisely the method employed by Plato in his philosophy. As long as exact science confines its observations to physical conditions and proceeds Aristotle-like, it certainly cannot fail. But notwithstanding that the world of matter is boundless for us, it still is finite; and thus materialism will turn forever in this vitiated circle, unable to soar higher than the circumference will permit.

So long as both philosophy and science deny the gnosis, so long will their speculations prove of little value to mankind. The problem of chance or design, of mind and matter, of good and evil—the ever-recurring questions of the eternal quest—are not to be understood by either sense or intellect alone, much less from the anti-intellectualism which glorifies the feelings as opposed to rational inquiry. Uninitiated humanity, like a feather before the gusting cycles of thought, flies from anthropomorphism to rationalism, from rationalism to materialism, from materialism to psychism and back to anthropomorphism, each change a reaction from the barren futility of the preceding state, led on by a forlorn longing for knowl-

edge—which truly exists, but not on the planes where it is sought. Knowledge lies within the man himself. Never was there a time when this eternal truth did not light the path of human evolution. Yet only the few have seen the light, and far fewer still have felt the flame. The mission of H. P. Blavatsky was as much to show that neither science, religion nor philosophy—as we know them—possesses true wisdom, as it was to teach that Wisdom to those who

were and are willing to learn.

Slowly the forces of the coming cycle are assembling on the plain of Kurukshetra. There will be many Arjunas and Duryodhanas in the field by 1975. The Arjunas will have learned to discern their friends from foes, although with that great despondency that filled the heart of their divine prototype five thousand years ago. It is bitter to learn that "metaphysics" is not sufficient, that "science" has not advanced, that all those things which we regard as the glory of our civilization and culture are but will-o'-the-wisps when divorced from the inner light of soul. But Krishna will be there also, and he will be known by those who have made themselves ready.

"ONE MOVING CAUSE"

Some years ago a well-known anglo-Indian, writing to the Theosophical Adepts, queried if they had ever made any mark upon the web of history, doubting that they had. The reply was that he had no bar at which to arraign them, and that they had written many an important line upon the page of human life, not only as reigning in visible shape, but down to the very latest dates when, as for many a long century before, they did their work behind the scenes. To be more explicit, these wonderful men have swayed the destiny of nations and are shaping events today.

Lincoln always felt that in some way he was to be an instrument for some great work, and the stray utterances of Bismarck point to silent hours, never openly referred to, when he felt an impulse push-

ing him to whatever of good he may have done.

A greater part is taken in the history of nations by the Nirmâna-kâyas than anyone supposes. Some of them have under their care certain men in every nation who from their birth are destined to be great factors in the future. These they guide and guard until the appointed time. And such protégés but seldom know that such influence is about them, especially in the nineteenth century. As Patanjali puts it, "In all these bodies one mind is the moving cause."

—W. Q. Judge.

YOUTH-COMPANIONS' FORUM

N cases of temporary death (when one has been resuscitated after a few hours or days) in which of the states does the soul

remain, Devachan or Deep Sleep?

(a) The reincarnating ego, for purposes of evolution, uses four principles: his intellectual, psychic, astral and physical sheaths. Together with the Ego they constitute the waking, living human being. Only the physical body is visible, but the others are all there, acting

in, on and through the body and through each other.

Upon the death of the physical body, the Real Man remains unaffected. He transfers his consciousness to the astral sheath, and when he has finished with this state he moves to the next plane, which is made up of the highest ideas of the life just completed. The astral shell is left on its own plane to disintegrate as the body does on earth. Once the Ego is absorbed in the Devachanic dream he cannot return to earth-life until the potentialities of that state are exhausted.

Since the Ego does not enter Devachan until there is a complete and permanent separation from the lower principles, it is clear that in temporary death or coma, the Soul must remain in some other state and condition. In deep sleep the physical body and the other sheaths are only asleep while the Real Man ascends to and remains on his own plane until equilibrium is restored in his instruments. What, then, is the condition of the Soul and on what plane is it functioning in cases of "temporary death"? Actually, the body only appears to be senseless and dead. The fact that one can be resuscitated shows that the connection between the principles has not really been broken. His condition may be likened to that of a normal man who has entered a subjective state, the character of which has been determined by his own nature. It might be like a "brown study" or a vivid dream.

(b) When the Ego has entered Devachan, after the death of the body and the separation from the astral body, and after he has appraised and evaluated the events of the life last lived at each of these two deaths, he is then so absorbed in deep contemplation that none but an adept can arouse him from his meditation. In the case of "temporary death," a man may enter a "devachanic" state only analogically, as anyone may be absorbed in deep happiness in wak-

ing life.

A consideration of "death reviews" will show that the state of each man after leaving the body, whether permanently or temporarily, grows out of and is caused entirely by the individual's own disposition, his life-time's meditation, his fear of death or his courage to face life or death. There are no eternal places or states "prepared" for men to enter. We take our states with us, we make

them and then move into them.

Men in the shadow of death, men falling from high places, men who have expected death, tell of having a kind of death review. Men unconscious from nearly drowning often experience a vision of the events they have lived through. Men unconscious from asphyxiation go through a review of the life they had thought was ending. Death reviews differ with the occasion. If it is only an anticipation of death, if it is the death of the body, if it is the death of the astral body, in each case there is a difference. Persons who have narrowly escaped death have reported that even the anticipation set going a review, but when examined it is seen that these reviews were not moral evaluations of the life last lived, but merely physical reviews, pictures of past events. Each time the Ego discards a principle he seems to examine the memories embedded in that principle. When men only anticipate death, it seems that the separation of the body from its environment actuates the kind of reviewing done. Real death, in which the physical body is finally discarded, gives the examination of events a moral character. When, after Kama Loka has been experienced, the astral body is about to be thrown off, the evaluation would by analogy have a more spiritual quality than the other reviews. The Ego is the Great Accountant and to him each event and its value to him as Soul are very important. At each great change he examines his accumulated experience.

Temporary death may be preceded by anticipation of death, or it may come so gradually that the individual does not expect to die. There may be no separation from the astral, as in suspended animation, or, again, separation may occur. In *Isis Unveiled* (I, 483), H.P.B. says that in cases of what physiologists call real death, but which is not actually so, the astral body has withdrawn. Even local decomposition may set in without real death. In some cases the individual can throw himself into a trance; his breathing stops, his eyes are glazed, his muscles are rigid and physicians will pronounce him dead. But he can bring himself out of this state, which is somnambulic trance. Obviously, the states of consciousness of the ego

during temporary death must differ in all these cases.

Some men can face death without fear, calmly considering the event. Temporary death could not throw such a man into the night-mare state which some report having suffered during apparent

death. The waking consciousness of one who is fearless has been far more controlled than that of the ordinary person and such a

man might pass to the state of "deep sleep."

Theosophy teaches that the physical man is one, but that the thinking man is septenary—thinking, acting, feeling, and living on seven planes of being—and that the permanent Ego has a distinct set of senses or modes of perception for each plane. The question of what the Ego is doing in any but the waking state is therefore not a simple one. Once in each twenty-four-hour cycle, every man, even the criminal, goes into the state of deep sleep, that fountain of knowledge which is within himself. The Ego retreats until he becomes one with the source of his own being, where he sees and knows himself as he really is. This state of self-knowledge is part also of the larger cycle which carries him around and back into rebirth. At the entrance to this life he looks backward and forward and understands the meaning and justice of his karma. Since temporary death is an unnatural ejection from the body, caused by shock, illness, or drugs, it would not seem to follow that the ordinary man would pass into the highest state, but rather that he would be held by dreams or fears. There is record of a father who refused to have his son buried, even after all known tests had convinced the doctors that the son was dead. Upon regaining control of his body, the son reported that he had been conscious and in terror lest his father might yield to the doctors' insistence.

Observation of animal behavior leads me to conclude that an entity is incarnated in each animal form. As each dog, for example, is made up of trillions of cells, surely a co-ordinating and guiding entity is responsible for the unified action of those cells and the animal's purposive behavior. What objection has Theosophy to

this?

The questioner has made a true observation and drawn a just conclusion about animals in stating that there must be intelligence behind the co-ordination of the cells which make up the animal, but he has gone too far in regarding its behavior as purposive. Theosophy teaches that only self-conscious beings are capable of deliberate choice, of purposive or creative action. The teaching makes an important distinction between elemental intelligence and purposive or creative action. The forms of the lower kingdoms are not sufficiently developed to be vehicles for self-conscious egos.

The many cells making up any body, be it plant, animal or human, are gathered around an ideal pattern called the astral body. Even stones have a rudimentary principle of form, the crystal, which we

recognize as the pattern throughout the mineral kingdom. Every plant, says H.P.B., from the gigantic tree down to the minutest blade of grass, "has an elemental entity of which it is the outward

clothing."

When we come to the animal, we find the psychic nature far more developed than in the kingdoms below. The animal is more intimately connected with man than are the other kingdoms, especially with man's lower nature. When we compare the conduct of a domestic animal in the presence of its friend with that of the same animal in the presence of a stranger, we get a clue to the psychic nature of animals. A pet or trained animal responds to the psychic nature of its master. An unfriendly dog may become friendly under the care of a kindly person. Animals are made up of the lives which man has used, both long ago and in the present. They are our "cast-off clothing," embodying lives impressed by human beings. The Atlanteans had "speaking animals" as servants, trained to warn against danger.

In Isis Unveiled the lower orders of evolution are declared to have emanated from higher intelligences. The mind principle is the origin of all forms in the universe and the basis of all law. All of nature is a great mirror in which man sees his own nature reflected. His virtues appear in the beauties of the world, in the flowers, in the apparent sacrifice of animals, in the community life of the bees. The same is true of his faults: waspish and mean thoughts are reflected in insect pests, tigerish thoughts in the tiger. There are healing herbs and poisonous plants in the vegetable kingdom. "The tiger and the donkey, the hawk and the dove, are each one as pure and innocent as the other, because irresponsible. Each follows its instinct, the tiger and hawk killing with the same unconcern as the donkey eats a thistle, or the dove pecks at a grain

of corn."

The vast field of being which we call the lower kingdoms—the mineral, the plant and the animal—are collectively a great alembic in which meet and mingle all the feelings and thoughts and results of man's actions. The tendencies which have resulted from man's use of the lives in long past periods of evolution are here sorted and arranged, awaiting their cyclic return to their creator. In each incarnation some of them come to him as his body, his disposition, his environment. Great Nature, as we perceive and are affected by it, is a reflection of human nature—the workshop of evolution.

THE KARMA OF CONQUEST

N The Ocean of Theosophy, Mr. Judge writes of the isolation of India which the Lodge "brought about deliberately" at the beginning of the Christian era, and which extended through the long centuries of the medieval period. This was done, he says, to preserve the ancient wisdom for "future generations"—who are ourselves and those to come. As the star of western expansion and imperialism rose and a growing intercourse between East and West became inevitable, the protecting shield of England was raised against the vandalism of the Catholic countries. In this way a seeming evil was turned to good purpose. Even if their motives have been wholly economic, the English have always endeavored to understand the peoples whom they have conquered by force of arms. In the preface to his rendering of the Laws of Manu, Sir William Jones tells his English readers that the well-directed industry of the millions of Hindus "would add largely to the wealth of Britain," arguing that knowledge of their laws and religious convictions should prove the key to successful administration.

The Karmic accounts between India and its European exploiters have yet to be balanced. The latter went to the East, not to find the pearl of great price, but from the commercial incentives which have animated the progress of western civilization ever since the first Phoenician galley clove the waters of the Mediterranean. Except for occasional and notable exceptions, the wisdom of the Orient has come to us as a mere by-product of the activities of fighting and trading peoples, and often through the biased vision of Christian sectaries. Forced into such circuitous channels in its westward flow, the eastern gnosis has suffered a systematic distortion at the hands of modern scholars and orientalists, all of whom have imagined themselves to be "pursuing a track on the royal high road to respec-

tability and duty."

A careful review of the ways in which Hindu and other oriental philosophy has penetrated the occidental world of thought would form an illuminating study in Karma. What concatenation of causes led Arthur Schopenhauer—whose writings have influenced profoundly countless thoughtful men of the West—to derive his inspiration from a Latin rendering of the Upanishads, done by Anquetil-Duperron, a French Orientalist who had for his source a Persian version which, in turn, was translated into that tongue at the instance of Akbar, the eclectic Mogul Emperor? What affinities of the past brought the German-born Max-Muller to India with a commission from the British East India Company to "edit" the

Rig-Veda? He it was who described Vedic hymns as "childish lispings," and of whom Swami Dyanand Sarasvati, "the greatest Sanskritist of his day in India," said to H.P.B.: "If Mr. Moksh Mooller, . . . were a Brahmin, and came with me, I might take him to a gupta cave (a secret crypt) near Okhee Math, in the Himalayas, where he would soon find out that what crossed the Kalapani (the black waters of the ocean) from India to Europe were only the bits of rejected copies of some passages from our sacred books. . . . the Mlechchhas will of course have to wait."

Further light is cast on this web of Karma by a statement from

W. Q. Judge:

... the phenomena of heresy, downfall of religion, rise of new religions, the birth in Europe of a Max Muller, who expatiates upon the greatness of the Vedic philosophy, and of Bradlaughs and other infidel sons of Christian parents—all these are due to the fact (and also other causes), that the individuals concerned had not done their duty to the nations (or religions), to which they respectively belonged. A study of the times when and in the manner in which the traits of these men are brought into play should be profitable in several ways.

If western peoples had been willing to accept instruction from the East at the hands of H. P. Blavatsky, some of the dread effects inexorably resulting from such unnatural relationships might have been averted. As it is, the strengthening current of interchange between the two hemispheres forebodes an increase of scholastic and dead-letter interpretations of oriental scriptures on the one hand, and of the morbid fascination of psychic practices on the other. H.P.B. was the Messenger of the Theosophical Mahatmas, and her mission was to re-present the archaic philosophy from which the wisdom of the East was drawn—a teaching which knows no geographical or religious limitations, a universal Wisdom-Religion. It was not the desire of the Brotherhood that the peoples of the West should fall prey to and repeat the crystallized errors of the Orient. This is made clear by Mr. Judge:

Nor is it the desire of the Lodge to have members think that Eastern methods are to be followed, Eastern habits adopted, or the present East made the model or goal. The West has its own work and its duty, its own life and development. Those it should perform, aspire to and follow, and not try to run to other fields where the duties of other men are to be performed. If the task of raising the spirituality of India, now degraded and almost suffocated, were easy, and if thus easily raised could it shine into and enlighten the whole world of the West, then,

indeed, were the time wasted in beginning in the West, when a shorter and quicker way existed in the old land. But in fact it is more difficult to make an entry into the hearts and minds of people who, through much lapse of time in fixed metaphysical dogmatism, have built, in the psychic and psycho-mental planes, a hard impervious shell around themselves, than it is to make that entry with Westerners who, although they may be meat eaters, yet have no fixed opinions deep laid in a foundation of mysticism and buttressed with a pride inherited from the past.

From the present indications of literature, in both the popular and the academic sense, the rising tide of psychic development in this century includes an insidious undertow of Hatha-Yogic ideas. The United States, particularly on its southwestern shore, harbors a number of psychic coteries whose doctrines are crude importations from the East. Such movements as that sponsored by the notorious Ballards are of the domestic variety, showing how widely pseudo-occultism has spread its virus and increased the susceptibilities of the unintelligent and passively inclined. Many thousands of souls seem destined to be caught in these currents of efflux which will hurry on to its doom the flotsam of human nature, the failures of

this and past races.

With the dark spectacle of these Karmic consequences all about, it is indeed heartening to turn to those rare exceptions to the general trend, who stand as unflickering beacons lighting the troubled seas of Kali Yuga. One Easterner to whom the West would do well to hearken carefully is Sir Sarvepalli Radhakrishnan, until recently Vice-Chancellor and Professor of Philosophy at Andhra University, Waltair, India, and who last year accepted an appointment to the Spalding Chair of Eastern Philosophy and Religions at Oxford University. Steeped in the lore and philosophy of his own land, Professor Radhakrishnan brings to England a mind trained in the highest metaphysics known to the world. In an essay included in a recent volume entitled Contemporary Indian Philosophy, of which he was one of the editors, he goes to the heart of India's difficulties. While admitting that Indian philosophy is "essentially practical, dealing as it does with the fundamental anxieties of human beings," in his view, the neglect by Indians generally of the "essential duty of service to men" indicates that they "have not the slightest idea of the true nature of religion." This first principle of all philosophy is the keystone missing from western speculation, the lack of which accounts for the failures of modern philosophy and religion to influence appreciably the lives of men and women in the West. A professor who will courageously say such things to the

students of Oxford University may serve as a "protecting shield" for the rising generation in England, — an armor of ancient verity against the vicious materialism of today.

Some extracts from an address delivered by Professor Radhakrishnan before a meeting of the British Institute of Philosophy will illustrate the profound and salutary character of his thought.

Absence of any creative gradation of purposes has turned human society into a confused battlefield of groups holding passionate convictions that are irreconcilably opposed to one another. These groups, self-centered and exclusive, with clashing standards of value and diverse goals of action, are attempting to subdue and exploit the whole human commonwealth for the sake of their tribal aims. While modern science and the extraordinary progress of communications have made the world into a closely knit whole, and produced a unity in external and superficial things, the mental, moral, and emotional hostilities are effectively preventing the development of a world consciousness and community. Human beings seem to belong to many different mental species. We have today a world of increasing material contact and spiritual disunion.

Civilization does not proceed in a straight line upward or downward, but rather in a series of reaches. It follows an undulatory course. The great cultures of the past attained a pitch of perfection in many respects superior to anything of which we are capable. Due to the inertia and ill-will of man, dark ages occur off and on. Progress is not inevitable. It requires to be achieved by man who grows by aspiration and effort. Ideas rule the world. Man must have a clear consciousness of the goal he is aiming at. He can advance to his goal by knowledge and achievement. He must adopt a world view which will bring him under the control of the great ideals of spirit. Human society is yet in its infancy with vast spaces of time to fulfil the destiny that awaits it.

It is true that science does not take the ultimate dissolution of the universe as quite settled. It is suggested that the process of dissolution is being balanced by recreation, and so the physical universe will go on endlessly. Space-time is essentially incomplete, not merely at this stage, but at all stages. A genuine duration must always be passing and can never be complete. In principle it is incapable of being completed. There can never come a time when the cosmic process will attain perfection. It can approximate to it perhaps but can never reach it. Man's

¹Published in Philosophy, Journal of the Institute, July, 1937.

historical experience cannot be anything else than one of steady failure. This failure is inseparable from material relations. Nothing perfect can be realized in time. The end of man consists in an uninterrupted striving after an impossible ideal. His aspirations can never be satisfied though it is necessary for him to cherish them since they animate his other activities and desires which are capable of fulfilment. There is no heaven other than the joy of ascent.

The difficulties mentioned in the previous section are due to a confusion between progress and perfection which belong to two different planes. Progress refers to a future world-zoon and perfection to the ultimate depths of one's being. Progress deals with a solution in the stream of time at some undated moment in the future history of mankind. It thinks of an ultimate perfection within the time order, within the limits of the historical process. Perfection is a victory over time, a triumphant passage from the historical to the super-historical. Death is the symbol of time, and resurrection is the symbol of the consciousness which has triumphed over death. We break up time into past, present, and future and argue that the future or the past has greater reality than the present. Eternity suffers no such division. It is a duality, not a career, a possession not a pursuit. It is not a vonder state or a future consummation, but one here and now, a state we realize when we turn away from unreality and darkness to true light and life. The destiny of man is a realization higher than any that can be achieved in his purely historical experience. Man's inner division is reintegrated only in a higher and absolute reality. Perfection is not a goal at which the soul of man arrives, not a finality beyond himself. Release in this life (jivanmukti) of the Hindu, perfection here and now of the Buddhist (samditthakam nibbanam) is the apprehension of reality which is not to be confused with the historical succession which is only the actual. "By reality and perfection," says Spinoza, "I mean the same thing." What causes the mind of man to entertain the idea of the eternal is the presence of the eternal in him. It is this that makes man put forth his effort to be purer and nobler than he is. When he rises to the higher life and apprehends the real, he transcends the pleasures and delights of life as well as its suffering and sorrows.

Philosophy has lost its power because the over-intellectuals have reduced it to linguistic analysis and logical disputation. Protests against hard and crude rationalisms are uttered by romanticists who require us to become vital and dynamic. There is a tendency to confuse instinctive life with the spiritual. When

we pass from outer to inner life, we enter the region of imponderables, that both eludes rules and scientific measurement, a region that is summed up in the word "soul." In the life of instinct and that of spirit, we have spontaneity and immediacy. In the former they are the result of absence of checks; in the latter of self-control. Spiritual life is not something into which we slip passively but is the result of the activity of man's whole nature. It is the task of philosophy to declare to us the truths of spirit, the eternal values which are above the stream of change.

Humanitarian sentiment is not effective enough to change men's minds. The question of peace or war is not simply a matter of political arrangement. Peace is a state of mind. So long as individuals are filled with restless desire and do not have peace in their hearts, it is madness to expect peace in the world. While resolved to renounce nothing, this generation wishes to enjoy the fruits of renunciation. A new simplicity, a new asceticism is what we need. If men conquer their own inordinate desires, this inner victory will show forth in their outer relations. In the third century B. C., Asoka succeeded to a realm more extensive than modern British India. He achieved in early life a reputation as a military hero. The spectacle of the misery caused by war filled him with remorse and he became a man of peace and an enthusiastic disciple of Buddha. The results of his conversion may be told in his own words as they appeared in the edicts which he caused to be carved on rocks and pillars throughout his vast empire. In one of them he tells us of his profound sorrow at the thousands who had been slain in his war on the Kalingas and at the misery inflicted on the non-combatants. "If a hundredth or a thousandth part of these were now to suffer the same fate, it would be matter of deep sorrow to his majesty. Though one should do him an injury, his majesty now holds that it must be patiently borne, so far as it can possibly be borne." Here was a mighty emperor who not only repented of his lust for dominion but had his repentance cut in rocks for the instruction of future ages. If science and machinery get into other hands than those of warring Caesars and despotic Tamerlanes, if enough men and women arise in each community who are free from the fanaticisms of religion and politics, who will oppose strenuously every kind of mental and moral tyranny, who will develop in place of an angular national spirit a rounded world view, who can tell what might be done?

TIME AND REALITY

IVING as we do, in the world of appearance, in the illusion of phenomena, we should try to understand a little, if possible, about the world of reality, of noumena. Actually, of course, there are not two distinct worlds, for the world of sense perception does not really exist. This is not as startling as it sounds, for if one comes to think on these matters a little, one cannot help realizing that there can exist only one root cause, one Absolute Reality which permeates all beings and is separate from none of them.

Dualism, — the system that claims that God and Man, or God and the Universe, are entirely separate from each other, — can have no place in a sound, constructive philosophy. Dualism, based on two spiritual ideals, is simply an illusion of the lower mind, a product of the intellect reasoning from false premises.

In reality, there is only one existence, the root cause behind all visible effects. The manifested universe may be thought of as a projection or image in the Eternal Mind, as a reflection of divine

thought in the mirror of Infinity.

One result of experience in this world of the senses is what we know as Time. In the world of reality, time has no existence, no meaning, for the Absolute is beyond time—Eternal and Infinite. Eternity is not simply a limitless extension of time, backward into the past and forward into the future. It is not "extension" at all, and is not to be thought of in the way in which we ordinarily regard time. It is above and beyond the merely rational powers and can-

not be grasped or comprehended in terms of reason.

Time as measurable, or "thinkable," is nothing but a product of the mind and exists only in our consciousness. The lower mind is our limiting factor, confining our true consciousness within the realms of a self-created, illusory universe of space and time. Our idea of time is simply the consciousness of the experiences we pass through, as they are presented to us in a certain succession. And what are these experiences? They are the material representations of ideas and conceptions existing in the spiritual world. The external aspects of such experiences have no true meaning, for only the idea behind them is real. These ideas, being spiritual, and belonging to the world of reality, cannot exist in time, and all the experiences that have ever befallen us, that may or will befall us, are existing now in the form of spiritual ideas. But our lower mind,

being unable to comprehend reality, cannot be aware of these spiritual ideas, and has to have them presented as physical experiences

in temporal succession.

The velocity with which we pass through experiences determines what we may call the "velocity of time," and is, therefore, subjective and relative. We all know how, under certain circumstances, time seems to pass very quickly for us, while under others, it drags very slowly. So one realizes that time is a very unstable and unreal thing, wholly dependent on our consciousness for its existence.

What we call "memory" is one of the results of time, and here again, we perceive that memories are simply creations of the mind. Whenever we pass through an experience, the mind seizes hold of it and clings to it, attempting to bind the consciousness to the thoughts and feelings which stand for this experience. When our consciousness is so limited and bound by the past, all future actions are determined by these memories. In this view, free action is impossible, and we become nothing but mechanical automations.

What we have to do, in order to live fully and freely, is to transcend the limits of time, of memory, of our environment. Instead of being influenced by our memories, or by hopes and fears for the future, we must concentrate on what we are doing at the present moment and act spontaneously. Living in the present, we become detached from the influence of our environment, from selfish crav-

ings and desires.

Theosophy teaches this detached outlook on life so that we may forget the personal self in each experience we encounter. By removing our attention from our personal selves we come to ignore the sense-aspect of memories of past actions and the hopes and fears they raise for the future, thus coming to identify ourselves with the One, the Eternal Self, which is our true identity. The lower, personal self is as illusory as the phenomenal world to which it belongs.

We then escape entirely from the bonds of time, being unconditioned by any temporal occurrence. We are detached from all pairs of opposites; that is to say, we remain uninfluenced by extremes of heat and cold, pleasure and pain, love and hate, and

retain a calm and dispassionate equilibrium.

The eternal, spiritual world then becomes the only reality, the only goal worth striving for. When we work for the good of the whole of Humanity, for all living beings, then we are acting from the standpoint of Reality.

ON THE LOOKOUT

MIND AND BRAIN

Dr. Ales Hrdlicka, noted anthropologist of the Smithsonian Institution, is searching for a correlation between intellectual capacity and cranial development. It is well known to neurologists and psychologists (and taught by Theosophy) that mental abilities are reflected in the complexity of the convolutions of the brain rather

than in its actual volume. As put by H. P. B.:

The theory which would judge of the intellectual capacity of a man according to his cranial capacity, seems absurdly illogical to one who has studied the subject. The skulls of the stone period, as well as those of African Races (Bushman included) show that the first are above rather than below the average of the brain capacity of the modern man, and the skulls of the last are on the whole (as in the case of Papuans and Polynesians generally) larger by one cubic inch than that of the average Frenchman. Again, the cranial capacity of the Parisian of today represents an average of 1437 cubic centimetres compared to 1523 of the Auvergnat. (S. D. II, 168.)

SOME SKULL STATISTICS

Since the writing of The Secret Doctrine, scientific research has done much to supplement the facts pointed out by H. P. B. The largest skull on record is that of the Russian novelist, Turgeniev, who had a brain capacity of 2,030 cubic centimeters. Next is the skull of an unknown man believed to be an Aleutian islander who lived several centuries ago, unearthed by Dr. Hrdlicka during the summer of 1936. The Aleut's head was big enough to enclose 2,005 cc. of brains. Other large brains were those of Daniel Webster, 2,000 cc.; of Bismarck, 1,965; LaFontaine, 1,950; Beethoven, 1,750; and Kant, 1,740. According to Dr. Hrdlicka, the average skull capacity for the human race is about 1,450 cubic centimeters for men and from 1,250 to 1,300 for women. The smallest on record is that of a prehistoric Peruvian, with a capacity of 910 cc. (New York Times, Oct. 5, 1936.) However, as a Times editorial points out, anthropologists, Dr. Hrdlicka included, no longer hold that a mighty brain betokens mighty thoughts (Oct. 6, 1936):

If brain size and weight are of any significance, "Smoke," by TURGENIEV (brain weight 74 ounces), ought to outrank "Vanity Fair," by THACKERAY (brain weight a paltry 58.6 ounces). Rhymed singsong is all that we ought to expect from

Walt Whitman with a brain that weighed only 45.3 ounces. Theoretically, his 53-ounce brain should have held Napoleon down to the rank of a private.

WHAT CAUSES GENIUS?

Probably the extinct Aleut of the mighty brain was related to the Eskimo. If he was, the living testimony against him is strong. The Eskimo has a brain bigger than the average, and the Hindu one that is smaller. It is the Eskimo who ought to have given us the great philosophies, religions and dramatic poems of the East, and the Hindu who ought to be living in the hunting epoch. There is no reason to think that Dr. Hrdlicka's Aleut was any more intelligent than the Eskimo of our own time who spears fish and builds igloos. Not yet have we discovered what sets a Newton or a Shakespeare apart.

Theosophy answers, the Immortal Ego. Psychologists may debate forever over the relative importance of heredity and environment. Until they recognize the existence of the egoic, or intellectual and spiritual line of evolution, the problem of genius will continue to be wrapped in mystery. "Education," in the ordinary sense of the term, is certainly no explanation. One of the Teachers of Theosophy has said that you can take an African or a Mongolian, "and you can educate him—if taken from the cradle—save his physical appearance, and transform him into the most brilliant and accomplished English lord. Yet, he will still remain but an outwardly intellectual parrot."

CAN THOUGHT "SWELL" BRAINS?

In The Ocean of Theosophy Mr. Judge says, "The depth and variety of the brain convolutions in man are caused by the presence of Manas, and are not the cause of mind." (p. 58.) With this in view, let us consider the data collected by Dr. Hrdlicka, who now suspects that the brain may grow in size as a result of sustained thought. Although nerve cells, of which the brain is composed, do not regenerate as do other cells in the body, it is a fact that heavy thinking drives blood to the brain, causing a measurable increase of temperature in that organ, which may, in turn, be a factor inducing further growth. According to an account in the New York Herald-Tribune (April 3):

Dr. Hrdlicka has measured a great many people of all types. He has kept careful records of the members of the National Academy of Sciences, all of them distinguished scientists. Their head measurements were larger than those of the average popu-

action, but so were their body measurements. But these data gave no evidence that the brain expanded in size after these scientists reached maturity. The most rapid growth of the cranium takes place during the prenatal period and the rate decreases rapidly after childhood, which would seem to indicate that the brain had finished its growth by the time adult life has been reached.

Successive measurements which Dr. Hrdlicka has been accumulating in recent years have shown that in men certain facial features, particularly the nose and ears, exhibit considerable enlargement during the latter years of life. These measurements also show that other parts of the cranium grow larger, including that portion of the head which encloses the brain. He has received letters from some of his fellow scientists which state that their heads have grown considerably during adult years.

HUMAN AND ANIMAL BRAINS

We may neglect this tempting opportunity for a witticism to see what possible significance there may be in this reported growth. There is, of course, no particular reason why it should be limited to scientists, and Dr. Hrdlicka shows that he realizes this by asking for reports from mental workers in other fields. Supposing, however, that there is some sort of correlation between sustained intellectual effort and the growth of the brain after maturity, what may it mean? There is a statement bearing on this question in *The Secret Doctrine* (II, 301):

It is a curious fact that it is especially in human brains that the cerebral hemispheres and the lateral ventricles have been developed, and that the optic thalami, corpora quadrigemina, and corpora striata are the principal parts which are developed in the mammalian brain. Moreover it is asserted that the intellect of any man may to some extent be gauged by the development of the central convolutions and the forepart of the cerebral hemispheres. (S. D. II, 301.)

THE BRAIN'S "POTENTIAL POWER"

There can be no doubt that there is a broad correlation between brain capacity and indwelling intelligence—a fact which clearly asserts itself when the brain of a human is compared with that of an animal. (See S. D. II, 193 fn.) It also seems logical that the growth of the brain in individual cases has a definite relation to its intensive use by the ego. But these indications, as H. P. B. has pointed out, are in no sense a general index of intelligence. Dr. Frederick Tilney, a modern authority on the evolution of the brain,

believes that "It is doubtful whether the average human being ever develops more than a quarter of the brain's potential power." (New York Times, Feb. 2, 1937.) He thinks, moreover, that "the brain of modern man is only at some intermediate stage in the ultimate development of the master organ of life." Following is his summary of the development of the human brain:

The brain area in which the greatest development has occurred is the frontal lobe. Its growth conveys an accurate impression of the manner in which the brain has responded to the demands made upon it. These demands continue to be made.

The fact seems to point in a hopeful direction. . . .

It is possible to sense the irresistible force that has carried animal life onward and upward through the ages. . . This force may and probably still is at work. It may still carry us forward.

A Moral Implication

In his view, the retrograde periods of human history have occurred when there was "manifest lack of control over human nature," and the promise of future brain development holds out hope for "improvements and readjustments in human relations and behavior." (Compare with this idea statements in S. D. II, 301.)

John J. O'Neill, science editor of the New York Herald-Tribune, in commenting on other expressions of Dr. Tilney, remarks that "The weight of the brain is no index of intelligence" and notes that many idiots have very large brains. (June 20, 1937.) He observes further:

The indication of a higher order of intelligence is the depth of the fissures between convolutions and the complexity of the convolutions.

All areas of the brain do not appear to be occupied by sensory centers. There are large portions of the surface immediately back of the forehead, known to neurologists as "the silent area," which do not appear to be associated with any known senses or bodily activity. . . . It is possible that these silent areas are associated with activities of the mind which are not susceptible to direct testing, the so-called "sixth sense" or "second sight," which today would be classified as "extra-sensory perception" by the scientist and would include clairvoyance and telepathy. This, however, is pure speculation. . . .

"Speculation," perhaps, yet far closer to the truth than many of the "facts" determined by empirical research. (Again, see S. D. II, 301.)

BIOGENETIC LAW

To return to Dr. Hrdlicka's studies: He has found that some brains continue to grow until the age of fifty or sixty years, the length and the breadth of the head increasing both absolutely and relatively to the rest of the stature. (New York Times, Feb. 7, 1937.) The growth of the cranium is particularly noticeable in the forehead. Such growth is significant in connection with the so-called "Law of Recapitulation," which states that the development of the individual summarizes the development of the race. This principle is the key to the understanding of occult anthropology (see S. D. II, 683-5), and is generally accepted by modern embryology. As stated by Minot,

The embryo is looked upon as the representative of the actual ancestor by modification of which the adult form was evolved. It is further assumed that the change of the embryo into the adult type follows the same general course as the development of the remote ancestor into the particular species under consideration. Speaking broadly, this interpretation is undoubtedly justifiable. (Laboratory Text-Book of Embryology.)

AN IMPORTANT COMPARISON

The relation of Dr. Hrdlicka's observations to the nature of human evolution, past, present, and future, becomes evident when they are regarded in the light of this law and together with certain Secret Doctrine statements. H. P. B. quotes de Quatrefages for a comparison of the respective developments of the human and Simian brains:

It is evident, especially after the most fundamental principles of Darwinism, that an organized being cannot be a descendant of another whose development is in an inverse order to his own.

... Consequently, in accordance with these principles man cannot be considered as the descendant of any simian type whatever.

... In the ape the temporo-spheroidal convolutions, which form the middle lobe, make their appearance and are completed before the anterior convolutions which form the frontal lobe. In man, the frontal convolutions are, on the contrary, the first to appear, and those of the middle lobe are formed later. (The Human Species, p. 111.)

Then follows H. P. B.'s discussion:

Lucae's argument versus the Ape-theory, based on the different flexures of the bones constituting the axis of the skull in the cases of Man and the Anthropoids, is fairly discussed by Schmidt ("Doctrine of Descent and Darwinism," p. 290). He admits

that "the ape as he grows becomes more bestial; man... more human," and seems, indeed, to hesitate a moment before he passes on: e.g., "This flexure of the cranial axis may, therefore, still be emphasized as a human character, in contradistinction to the apes; the peculiar characteristic of an order can scarcely be elicited from it; and especially as to the doctrine of descent, this circumstance seems in no way decisive." The writer evidently is not a little disquieted at the argument. He assures us that it upsets any possibility of the present apes having been the progenitors of mankind. (S. D. II, 646.)

EVIDENCE OF ATAVISM

The same evidence is drawn in more detail from another anthropologist:

As proven by Gratiolet, with regard to the cavities of the brain of the anthropoids, in which species that organ develops in an inverse ratio to what would be the case were the corresponding organs in man really the product of the development of the said organs in the apes—the size of the human skull and its brain, as well as its cavities, increase with the individual development of man. His intellect develops and increases with age, while his facial bones and jaws diminish and straighten, thus being more and more spiritualized; whereas with the ape it is the reverse. In its youth the anthropoid is far more intelligent and good-natured, while with age it becomes duller; and, as its skull recedes and seems to diminish as it grows, its facial bones and jaws develop, the brain being finally crushed, and thrown entirely back, to make with every day more room for the animal type. The organ of thought—the brain—recedes and diminishes, entirely conquered and replaced by that of the wild beast—the jaw apparatus. (II, 682.)

Persisting Error

It is difficult to see how modern anthropologists, in the face of such facts—one of which has been so recently verified by Dr. Hrdlicka's research—can continue to regard as plausible the theory that man is descended from a species of ape. Yet the following extract from Early Forerunners of Man (1934) by W. E. Le Gros Clark, professor of anatomy at Oxford University, shows how deeply rooted is the doctrine:

The line of evolution of the Anthropoidea has been marked by the successive branching off of specialized groups from a central stem in which a progressive expansion of the brain has been accompanied by the retention of a bodily structure of a remarkably generalized type. It is this main stem which culminated in the appearance of Man himself. . . .

... the human stock separated from the anthropoid ape stock at a phase in which the body-weight of the common ancestor had not yet exceeded that of the modern gibbon, and . . . many of the remarkable similarities in structure between Man and the gorilla (for example) must therefore owe their origin to an evolutionary parallelism which dates back to at least this phase. The abundant remains of fossil anthropoid apes in Europe, Asia and Africa (Dryopithecus, Sivapithecus, Palaeopithecus, Australopithecus, etc.) bear witness to the prolific nature of the evolutionary development of this Primate group all over the Old World during the later part of the Tertiary period. While most of these fossils have been regarded as bearing a not very distant relation to recent anthropoid apes, some at least exhibit certain human features which make it probable that they are early derivatives of a stock which may also have given rise to Man's ancestors.

"THE GREATEST ABERRATION"

The later stages in Man's evolutionary history are represented by fossils such as Pithecanthropus, Sinanthropus and Eoanthropus, which have corroborated in a most remarkable way the inferences drawn by anatomists from the study of the structure of Man and the anthropoid apes. Such palaeontological evidence leads inevitably to the conclusion that the progenitors of the Hominidae, even if they avoided the specializations distinctive of the modern large apes such as the lengthening of the arms, the atrophy of the thumb and the hypertrophy of the canines, must have possessed features of the skull and jaws, teeth, brain, and limbs by which they would be quite consistently referred to the category of the anthropomorphous apes. That Man has been derived from a form which—without imposing any strain on commonly recognized definitions—can be properly called an "anthropoid ape" is a statement which no longer admits of doubt.

This is Prof. Clark's view, based on evidence which in its entirety is subject to the same criticisms as those made by H. P. B. against the then current speculations on the subject. A careful student, Dr. Clark illustrates the truth of Descartes' observation that, "The greatest minds, as they are capable of the highest excellencies, are open likewise to the greatest aberrations." The extract from this modern authority has been given to indicate that theosophists have yet their work to do in this most important field of thought.

TELEPATHY LOOKS AHEAD

The Journal of Parapsychology for March describes the results of experiments in "prophecy" begun in 1934 by Dr. J. B. Rhine. Now, after 113,075 trials undertaken by eleven experimenters and forty-nine subjects, he presents evidence indicating that the human mind can predict the order in which cards will be arranged by shuffling. The proportion of correct predictions was such that the odds against it having occurred by chance are greater than 400,000 to one!

The usual pack of twenty-five ESP cards bearing geometrical symbols was used. The subjects were required to choose one of the five available symbols twenty-five times, intending their order to coincide with the order that would result from shuffling. After the predictions were recorded the cards were shuffled and then the predictions were checked against the actual order. In the series of tests reported, this operation was gone through 4,523 times, with the result that the number of "hits" or correct calls were 614 more than could be expected to be made by chance. Dr. Rhine cautiously suggests that these tests have "produced some considerable presumptive probability of the occurrence of precognitive ESP" pointing to "a new line of experimentation." In reviewing previous literature on the subject, he observes that "the mere remote possibility of the ocurrence of precognition is serious enough to fire the dullest imagination."

TOWARD "A MAJOR INTELLECTUAL REVOLUTION"

Its implications are the most far-reaching conceivable, both for the theories of the mind itself and for the view of nature as a whole. There is no question that an adequate scientific demonstration of precognition would produce a major intellectual revolution. This fact alone would suffice to warrant an inquiry into the hypothesis of precognitive ESP.

He anticipates that the admission by orthodox psychologists of even a faint possibility of precognition will require most convincing evidence. He reviews the work of J. W. Dunne and of H. F. Saltmarsh of the London Society for Psychical Research. The latter investigator gathered together several hundred cases of prophecy—"apparently spontaneous precognitive experiences"—the accounts of which the Society had accumulated during more than half a century of research. He also notes a similar collection compiled by Richet in *The Future and Premonition*. Dr. Rhine is well aware

that any hypothesis of precognition contradicts virtually every

dogma of modern psychology:

The very fact that an hypothesis of such importance should not have had any systematic experimental investigation prior to the work of the present report is an indication of a deepseated conviction that to do so is absurd—against all common sense and science.

Indeed, had not the work of Dunne and Saltmarsh freshly raised the question, and the logic of distance ESP work pointed both to the hypothesis and to an apparently easy method of experimentation, it is very doubtful if the present research could have risen through the resistant layers of indifference and scepticism under which all serious consideration of the question has long lain. In a word, the "days of prophecy" like the "days of miracles" have long been regarded in the halls of science as "past."

SCIENTIFIC "IMPARTIALITY"

Some measure of the sceptical spirit which the ESP experimenters have had to meet is revealed in a letter to Dr. Rhine from Dr. J. McKeen Cattell, editor of The Scientific Monthly, in which the latter rejects an article the Duke University scientist had prepared on the subject of his research. Dr. Cattell, a former president of the American Association for the Advancement of Science, and sometimes informally styled the "dean" of American men of science, concludes his letter with the offer "to wager \$100 against \$120 that in either a short or a long series, none of your subjects can in my office guess correctly more cards than the chance expectation of one in five." Thus do the inhabitants of "Scientific Olympus" cavalierly dispose of innovators who dare to unearth unpleasant facts. Dr. Rhine publishes Dr. Cattell's letter without comment.

Waldemar Kaempsfert, the New York Times science editor, after a sympathetic review of Dr. Rhine's article on precognition, writes an apt summary of the inhibitions of modern scientists, which, he predicts, will cause them to greet this adventure in prophecy with "new outbursts of sarcasm, indignation and incredulity."

(April 17.) He says:

Both physicists and psychologists—and psychologists are completely dominated by physical methods of experimentation—would accept clairvoyance and telepathy if the "laws of nature" were not violated. In other words it makes no difference whether the distance that separates the subject from the cards is three feet or three miles. Light, heat, radio waves, magnetism, every form of energy with which we deal in everyday life diminishes

in effect as it ripples out into space—diminishes in accordance with the well-known inverse square law. But not the "force" or whatever it is that is involved in extra-sensory perception. In the new experiments we have another seemingly outrageous

violation of physical law.

Investigations of extra-sensory perception now are being made in more than fifty universities and colleges. A few physicists in industrial laboratories are also dabbling in the subject. There never was a time in the history of psychology when so much real scientific interest was manifested in a subject long regarded as

REVEALING THE PSYCHIC UNIVERSE

If Dr. Rhine's conclusions are correct—and there seems to be small probability of anything else—he has successively removed from the human mind the limitations of the objective universe first matter and space, and now, time. He has, in fact, demonstrated the existence of the psychic universe, in which quite other than physical laws prevail. That is, he has done these things at a time when our civilization in its course of intellectual and psychic development seems ready—with the exception of a few scientific "diehards"-to grasp his results as realities and attempt to understand them. It is perhaps difficult for the student of Theosophy to see a correlation between these experiments, so utterly lacking in moral and philosophical content, and the sublime teachings of the Secret Doctrine on the illusions of time and space. Yet in such ways, it may be, will the mind of the race be made receptive to the larger truths of psychology, truths which are implied only in germ by the Duke investigations.

"THE LIVING TORCH"

The long and productive life of A. E., the Irish poet, has its most characteristic exemplification in his work as editor of The Irish Homestead, an agricultural journal. Each week its pages brought to an audience of farmers and country folk the assimilated essence of the Theosophy that A. E. had made his own. Indeed, the real contribution of A. E. to modern letters may be measured by the extent to which theosophic ideas passed through the alembic of his heart and mind to become expressions of the eternal verities, emerging here and there in the brief paragraphs and essays of literary and artistic criticism which he contributed to The Irish Homestead. No theosophist, therefore, can turn the pages of The Living Torch (New York: Macmillan Co., 1938), an edition of A. E.'s prose writings edited by Monk Gibbon, without a welling sympathy for the work of this warmly compassionate man. Mr. Gibbon, an ardent admirer of A. E., has shown excellent judgment in his selections, and the long introductory essay on the life of the poet is a just and penetrating biographical sketch. Says Mr. Gibbon:

The hardest task before A. E.'s biographer will be to determine his precise debt to theosophy. There can be no question that he owed much to the original movement and to the contacts to which it introduced him, and that he remained sympathetic to his friends of those days to the end. He might even have said that all which was deepest in his nature had been learnt on that path on which he had first set foot in their company. But men of his spiritual calibre will always outgrow movements, especially when these display their inevitable tendency to split into sects and to quarrel among themselves. . . . It is significant that A. E. avoids the use of the word theosophy in his published works. That he does not use it is probably because it had acquired too specialized a meaning and had even come to be associated with charlatanry.

On the other hand he would always acknowledge his gratitude to those who turned his attention to the sacred books of the East, to the Bhagavad-gita, to Patanjali and the Upanishads. His deepest intuitions date back undoubtedly to the period of this introduction. It was the time of his spiritual discipleship. And though, later, his sympathies might widen and his intellect seem more critical and acute, he himself could speak of "a thickening of the walls of the psyche," as though he had failed to achieve the full enlightenment which had once seemed within his grasp, and as though there had been atrophy as well as growth.

LOYAL TO W. Q. J.

Although A. E., like many other old-time theosophists, thought it futile to attempt to stand before the world as a student of Theosophy, and thereby do his part in purifying that sacred word of its notorious associations in the public mind, he remained forever true to the Teachers, speaking of H. P. B. and Mr. Judge with the greatest respect. Every student should read the open letter he wrote at the time of the "Judge Case," in 1894, which was printed in The Theosophical Movement for March of this year. That A. E. realized the depths to which the T. S. had later sunk is made evident by his comment on Krishnamurti: "He has had a claque of charlatans about him since he was a boy, announcing him as an avatar." It is impossible to do justice to this book of A. E.'s work

in so brief a notice, yet something of his pithy utterance and cle perception may be indicated by a passage or two, which for t student will also suggest the extent of his "debt to Theosophy":

There is no more subtle pleasure under heaven than digging below the foundations of an intellectual, making ourselves immune to the poison of his error and enabling ourselves to enjoy his truth, of which he himself was doubtful.

It is the traditional way of the East to concentrate its wisdom in aphorisms just as it is our European sin to expand an aphorism into a volume. Kapila, Lao-Tse, Patanjali, Sankara and many another sage left us concentrated brevities. The Eastern sage gives his pupils a few aphorisms to meditate over and when they have fathomed the profundity of one the pupil is almost able to create philosophies for himself. When we meet this concentration at first it repels us, for it implies a conviction that the pupil must think at least as hard as the sage, and the European writer explains so much and is so clear that the reader has not to think at all. All he gets is ready-made opinions, whereas the brooding on the aphorisms of any of the great Eastern sages creates another with an original mind.

POPULARIZING REINCARNATION

While it may be doubted that anything good can come out Hollywood, the fact is that the motion picture industry now regar the idea of reincarnation "good for a laugh," if for nothing el And the industry is one that labors seriously to manufacture p palatable to the average mind-a rather modest intellectual a artistic criterion. The word "reincarnation" has unobtrusive slipped into some of the more ordinary screen plays. Metro-Goldwo Mayer recently released a "B" production (destined for the sm or "neighborhood" theaters) entitled "Love is a Headache," which the idea of reincarnation is exploited for laughter for seve reels. The story depicts a rather dull but earnest character w obtains a book entitled Reincarnation, and considerable footage the picture is devoted to his somewhat ludicrous efforts to assimil: the idea and explain it to others.

There is certainly nothing philosophical in such a presentati of reincarnation, but it is nevertheless a straw in the wind indicati the currents of the race mind. Motion picture writers are quick commercialize any idea of actual or possible interest to the man the street—as witness the amusement created by light references Einstein's theory of relativity, almost any presidential administ tion, or the Townsend Plan.