"MAGIC" IN MODERN SCIENCE

Articles by H. P. Blavatsky
BLACK MAGIC IN SCIENCE
ANCIENT MAGIC IN MODERN SCIENCE
SOME SCIENTIFIC QUESTIONS ANSWERED
THE PRALAYA OF MODERN SCIENCE
THE IMPERFECTIONS OF SCIENCE

FOREWORD

In her Preface to *Isis Unveiled* H.P.B. spoke of the need for "a restitution of borrowed robes, and the vindication of calumniated but glorious reputations." Her article, "Black Magic in Science," which appeared in *Lucifer* for June, 1890, is apart of this task. In it she sought to do justice to Anton Mesmer, so long eclipsed by the exploits of the hypnotists and denied his place in the annals of psycho-physical discovery. This article is more, however, than a defense of Mesmer, who was, as she shows, one of a long line of practitioners of the ancient occult art of healing. Psycho-dynamics, it becomes quite evident, is not an invention of modern therapeutics, but was linked in ancient times with the larger knowledge of cosmology and psychological discipline (magic) which involved the use of natural powers. At issue in this discussion is the extent of the capacities of the fully developed man

Earlier, in the *Theosophist* for October, 1886, in the teeth of modern skepticism, H P.B. reproduced under the heading, "Ancient Magic in Modern Science," portions of the contents of Lepsius Papyrus, giving evidence of a thorough familiarity with magical phenomena on the part of the ancient Egyptians. Her purpose was to show that, as Jacolliot remarked, the modern West had not yet learned the ABC's of this branch of psychology!

The article, "Some Scientific Questions Answered," while not from the pen of H.P.B., as the editorial note explains, is of obvious importance in linking man's occult powers with the universal principles of Nature, and in using the phenomena which became known in the nineteenth century through the Spiritualists as key to the explanation of evolutionary processes wholly hidden from Western science. This article was printed in the *Theosophist* for October, 1883.

Again, in "ThePralaya of Modern Science," which appeared in the first issue of the second volume of the *Theosophist* (October, 1880), H.P.B. shows how the "heat death" of our solar system, far from being a recent theory of modern astronomers, was anticipated in ancient doctrines of the final dissolution of the planet. These ideas, she says, were "based upon scientific, mathematical deductions," and "are *not* new."

Despite appearances, it was not H.P.B.'s intention to deprecate the achievements of modern science, nor to deny the undoubted skills and high abilities revealed in experimental research Her concern was rather to contrast the philosophical science of antiquity with the fruit of investigations pursued in the anti-metaphysical temper of men who were polemicists against the dogmas of organized religion as much or more than they were searchers for impartial truth. She wished to demonstrate that ancient science was a reality, that it was informed by a spirit more impartial than any which materialistic contentiousness could permit, and that the psychological science of the ancients, however strange its vocabulary and improbable its transcendental assumptions might sound to modern scholars, was far in advance of anything the West had produced. Meanwhile, in the physical science of her times, there were many obvious contradictions among experts. More to explode the assumption of scientific "infallibility" than for any other reason, H.P.B. gave brief space to the different claims of the temperature of the sun in an article, "The Imperfections of Science," which was published in the *Theosophist* for February, 1881.

While not all these articles are signed by H.P.B., her use of them as Editor indicates approval, except in cases where she added corrective or qualifying notes.

BLACK MAGIC IN SCIENCE

... Commence research where modern conjecture closes its faithless wings (Bulwer's *Zanoni*).

The flat denial of yesterday has become the scientific axiom of **to-day** *{Common Sense Aphorisms*),

HOUSANDS of years ago the Phrygian Dactyls, the initiated priests, spoken of as the "magicians and exorcists of sickness," healed diseases by magnetic processes. It was claimed that they had obtained these curative powers from the powerful breath of Cybele, the many-breasted goddess, the daughter of Ccelus and Terra. Indeed, her genealogy and the myths attached to it show Cybele as the personification and type of the vital essence, whose source was located by the ancients between the Earth and the starry sky, and who was regarded as the *very fons vitod* of all that lives and breathes. The mountain air being placed nearer to that fount fortifies health and prolongs man's existence; hence, Cybele's life, as an infant, is shown in her myth as having been preserved on a mountain. This was before that *Magna* and *Bona Dea*, the prolific *Mater*, became transformed into Ceres-Demeter, the patroness of the Eleusinian Mysteries.

Animal magnetism (now called Suggestion and Hypnotism) was the principal agent intheurgic mysteries as also in the *Asclepieia*—the healing temples of iEsculapius, where the patients once admitted were treated, during the process of "incubation," magnetically, during their sleep.

This creative and life-giving Force—denied and laughed at when named theurgic magic, accused for the last century of being principally based on superstition and fraud, whenever referred to as mesmerism—

is now called Hypnotism, Charcotism, Suggestion, "psychology," and what not. But, whatever the expression chosen, it will ever be a loose one if used without a proper qualification. For when epitomized with all its collateral sciences—which are all sciences within *the* science it will be found to contain possibilities the nature of which has never been even dreamt of by the oldest and most learned professors of theorthodoxphysical science. The latter, "authorities" so-called, are no better, indeed, than innocent bald infants, when brought face to face with the mysteries of antediluvian "mesmerism." As stated repeatedly before, the blossoms of magic, whether white or black, divine or infernal, spring all from one root. The "breath of Cybele"— Akasa tattwa, in India—is the onechiefagent, andit underlay the socalled "miracles" and "supernatural" phenomena in all ages, as in every clime. As the parent-root or essence is universal, so are its effects innumerable. Even the greatest adepts can hardly say where its possibilities must stop.

The key to the very alphabet of these theurgic powers was lost after the last gnostic had been hunted to death by the ferocious persecutionoftheChurch; and as gradually Mysteries, Hierophants, Theophany and Theurgy became obliterated from the minds of men until they remained in them only as a vague tradition, all this was finally forgotten. But at the period of the Renaissance, in Germany, a learned Theosophist, a Philosopher/^/* ignem, astheycalledthemselves, rediscovered some of the lost secrets of the Phrygian priests and of the Asclepieia. It was the great and unfortunate physician-Occultist, Paracelsus, the greatest Alchemist of the age. That genius it was, who during the Middle Ages was the first to publicly recommend the action of the magnet in the cure of certain diseases. Theo-phrastus Paracelsus—the "quack" and "drunken impostor" in the opinion of the said scientific "bald infants" of his day, and of their successors in ours—inaugurated among other things in the seventeenth century, that which has become a profitable branch in trade in the nineteenth. It is he who invented and used for the cure of various muscular and nervous diseases magnetized bracelets, armlets, belts, rings, collars and leglets; only his magnets cured far more efficaciously than do the electric belts of to-day. Van Helmont, the successor of Paracelsus, and Robert Fludd, the Alchemist and Rosicrucian, also applied magnets in the treatment of their patients. Mesmer in the eighteenth, and the Marquis de Puysegur in the nineteenth century only followed in their footsteps.

In the large curative establishment founded by Mesmer at Vienna, he employed, besides magnetism, electricity, metals and a variety of woods. His fundamental doctrine was that of the Alchemists. He believed that metals, as also woods and plants have all an affinity with, and bear a close relation to, the human organism. Everything in the Universe has developed from one homogeneous primordial substance differentiated into incalculable species of matter, and everything is destined to return thereinto. The secret of healing, he maintained, lies in the knowledge of correspondences and affinities between kindred atoms. Find that metal, wood, stone, or plant that has the most correspondential affinity with the body of the sufferer; and, whether through internal or external use, that particular agent imparting to the patient additional strength to fight disease—(developed generally through the introduction of some foreign element into the constitution)—and to expel it, will lead invariably to his cure. Many and marvellous were such cures effected by Anton Mesmer. Subjects with heart-disease were made well. A lady of high station, condemned to death, was completely restored to health by the application of certain sympathetic woods. Mesmer himself, suffering from acute rheumatism, cured it completely by using specially-prepared magnets.

In 1774 he too happened to come across the theurgic secret of direct vital transmission; and so highly interested was he, that he abandoned all his old methods to devote himself entirely to the new⁷ discovery. Henceforward he *mesmerised* by gaze and passes, the natural magnets being abandoned. The mysterious effects of such manipulationswere called by him—*animal* magnetism. Thisbrought to Mesmer a mass of followers and disciples. The *new* force was experimented with in almost every city and town of Europe and found everywhere an actual fact.

About 1780, Mesmer settled in Paris, and soon the whole

metropolis, from the Royal family down to the last hysterical bourgeoise, were at his feet. The clergy got frightened and cried—"the Devil"! The licensed "leeches" felt an ever-growing deficit in their pockets; and the aristocracy and the Court found themselves on the verge of madness from mere excitement. No use repeating too well-known facts.but the memory of thereadermay be refreshed with a few details he may have forgotten.

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It so happened that just about that time the official Academical Science felt very proud. After centuries of mental stagnation in the realm of medicine and general ignorance, several determined steps in the direction of real knowledge had finally been made. Natural sciences had achieved a decided success, and chemistry and physics were on a fair way to progress. As the Savants of a century ago had not yet grown to that height of sublime modesty which characterizes so preeminently their modern successors—they felt very much puffed up with their greatness. The moment for praiseworthy humility, followed by a confession of the relative insignificance of the knowledge of the period—and even of modern knowledge for the matter of that compared to that which the ancients knew, had not yet arrived. Those were days of naive boasting of the peacocks of science displaying in a body their tails, and demanding universal recognition and admiration. The Sir Oracles were not as numerous as they are now, yet their number was considerable. And indeed, had not the Dulcamaras of public fairs been just visited with ostracism? Had not the leeches well nigh disappeared to make room for diploma-ed physicians with royal licenses to kill and bury apiacere ad libitum? Hence, the nodding "Immortal"iinhis academical chair was regarded as the sole competent authority in the decision of questions he had never studied, and for rendering verdicts about that which he had never heard of. It was the REIGN OF REASON, and of Science—in its teens; the beginning of the great deadly struggle between Theology and Facts, Spirituality and Materialism. In the educated classes of Society too much faith had been succeeded by no faith at all. The cycle of Science-worship had just set in, with its pilgrimages to the Academy, the Olympus where the "Forty Immortals" are enshrined, and its raids upon every one who refused to manifest a noisy admiration, a kind of juvenile calf's

enthusiasm, at the door of the Fane of Science. When Mesmer arrived, Paris divided its allegiance between the Church which attributed allkinds of phenomena except its own *divine miracles* to the Devil, and the Academy, which believed in neither God nor Devil, but only in its own infallible wisdom.

But there were minds which would not be satisfied with either of these beliefs. Therefore, after Mesmer had forced all Paris to crowd to his halls, waiting hours to obtain a place in the chair round the miraculous *baquet*, some people thought that it was time real truth should be found out. They had laid their legitimate desires at the royal feet, and the King forthwith commanded his learned Academy to look into the matter. Then it was, that awakening from their chronic nap, the "Immortals" appointed a committee of investigation, among which was Benjamin Franklin, and chose some of the oldest, wisest and baldest among their "Infants" to watch over the Committee. This was in 1784. Every one knows what was the report of the latter and the final decision of the Academy. The whole transaction looks now like a general rehearsal of the play, one of the acts of which was performed by the "Dialectical Society" of London and some of England's greatest Scientists, some eighty years later.

Indeed, notwithstanding a counter report by Dr. Jussieu, an Academician of the highest rank, and the Court physician D'Eslon, who, as eye-witnesses to the most striking phenomena, demanded that a careful investigation should be made by the Medical Faculty of the therapeutic effects of the magnetic fluid—their demand fell through. The Academy disbelieved her most eminent Scientists. Even Sir B.Franklin,so much at home with cosmic electricity,would not recognize its fountain head and primordial source, and along with Bailly, Lavoisier, Magendie, and others, proclaimed Mesmerism a delusion. Nor had the second investigation which followed the first—namely in 1825—any better .results. The report was once more squashed *{vide 'Tsis Unveiled,'' vol. i, pp. 171-176}*.

Even now when experiment has amply demonstrated that "Mesmerism" or animal magnetism, now known as hypnotism (a sorry effect, forsooth, of the "Breath of Cybele") is *a fad*, we yet get the majority of scientists denying its actual existence. Small fry as it is in

the majestic array of experimental psycho-magnetic phenomena, even hypnotism seems too incredible, too mysterious, for our Darwinists and Haeckelians. One needs too much moral courage, you see,to face the suspicion of one's colleagues, the doubt of the public, and the giggling of fools. "Mystery and charlatanism go hand in hand," they say; and "self-respect and the dignity of the profession," as Magendie remarks in his *Physiologie Humaine*, "demand that the well informed physician should remember how readily mystery glides into charlatanism."Pity the"wellinformedphysician"should fail to remember thatphysiology among the rest is full of mystery—profound, inexplicable mystery from A to Z—and ask whether, starting from the above "truism," he should not throw overboard Biology and Physiology as the greatest pieces of charlatanry in modern Science. Nevertheless, a few in the well-meaning minority of our physicians havetakenupseriously theinvestigation of hypnotism. But even they, having been reluctantly compelled to confess the reality of its phenomena, still persist in seeinginsuchmanifesta-t ions no higher a factor at work than the purely m ater ial and physical forces, and deny these their legitimate name of animal magnetism. But as the Rev. Mr. Haweis (of whom more presently) just said in the Daily Graphic . . . "The Charcot phenomena are, for all that, in many ways identical with the mesmeric phenomena, and hypnotism must properly be considered rather as a branch of mesmerism than as something distinct from it. Anyhow, Mesmer's facts, now generally accepted, were at first stoutly denied "And they are still so denied.

But while they deny Mesmerism, they rush into Hypnotism, despite the now scientifically recognised dangers of this science, in which medical practitioners in France are far ahead of the English. And what the former say is, that between the two states of mesmerism (or magnetism as they call it, across the water) and hypnotism "there is an abyss." That one is beneficent, the other maleficent, as it evidently must be; since, according to both Occultism and modern Psychology, hypnotism is produced by the withdrawal of the nervous fluid from the capillary nerves, which being, so to say, the sentries that keep the doors of our senses opened, getting anoesthetizedunder:

hypnotic conditions, allowthesetoget closed. A.H. Simonin reveals many a wholesome truth in his excellent work, "Solution du probleme de la suggestion hypnotique." Thus he shows that while "in Magnetism (mesmerism) there occurs in the *subject* a great development of moral faculties"; that his thoughts and feelings "become loftier, and the senses acquire an abnormal acuteness"; in hypnotism, on the contrary, "the subject becomes a simple mirror." It is Suggestion which is the true motor of every action in the hypnotic: and if, occasionally, "seemingly marvellous actions are produced, these are due to the hypnotiser, not to the subject." Again "In hypnotism instinct, i.e., the an imal, reaches its greatest development; so much so, indeed, that the aphorism 'extremes meet' can never receive a better application than to magnetism and hypnotism." How true these words, also, as to the difference between the mesmerised and the hypnotised subjects. "In one, his ideal nature, his moral self—the reflection of his divine nature—are carried to their extreme limits, and the subject becomes almost a celestial being (un ange). In the other, it is his *instincts* which develop in a most surprising fashion. The hypnotic lowers himself to the level of the animal. From a physiological standpoint, magnetism (Mesmerism) is comforting and curative, and hypnotism, which is but the result of an unbalanced state, is—most dangerous." Thus the adverse Report drawn by Bailly atthe end of last century has had direeffects in the present, but ithadits A^rmtfalso. Intended to kill the "Mesmeric" craze, it reacted as a death-blow to the public confidence in scientific decrees. In our day the Non-Possumus of the Royal Colleges and Academies is quoted on the Stock Exchange of the world's opinion at a price almost as low as the Non-Possumus of the Vatican. The days of authority whether human or divine, are fast gliding away; and we see already gleaming on future horizons but one tribunal, supreme and final, before which mankind will bow —the Tribunal of Fact and Truth.

Aye, to this tribunal without appeal even liberal clergymen and famous preachers make obeisance in our day. The parts have now changed hands, and in many instances it is the successors of those

I See the review of his work in the Journal du Magnetisme, Mai, Juin, 1890, founded in 1845 by Baron du Potet and now edited by H. Durville, in Paris.

who fought tooth and nail for the reality of the Devil and his direct interference with psychic phenomena, for long centuries, who come out publicly to upbraid science. A remarkable instance of this is found in an excellent letter (justmentioned) by the Rev. Mr. Haweis to the *Graphic*. The learned preacher seems to share our indignation at the unfairness of the modern scientists, at their suppression of truth, and ingratitude to their ancient teachers. His letter is so interesting that its best points must be immortalized in our magazine. Here are some fragments of it. Thus he asks:—

Why can't our scientific men say: "We have blundered about Mesmerism; it's practically true"? Not because they are men of science, but simply because they are human. No doubt it is humiliating when you have dogmatised in the name of science to say, "I was wrong." But is it not more humiliating to be found out; and is it not most humiliating, after shuffling and wriggling hopelessly in the inexorable meshes of serried facts, to collapse suddenly, and call the hated net a "suitable enclosure," in which forsooth, you don't mind being caught? Now this, as it seems to me, is precisely what Messrs. Charcot and the French hypnotists and their medical admirers in England are doing. Ever since Mesmer's death at the age of eighty, in 1815, the French and English "Faculty", with some honorable exceptions, have ridiculed and denied the facts as well as the theories of Mesmer, but now, in 1890, a host of scientists suddenly agree, while wiping out as best they may the name of Mesmer, to rob him of all his phenomena, which they quietly appropriate under the name of "hypnotism," "suggestion," "Therapeutic Magnetism," "psychopathic Message," and all the rest of it. Well, "What's in a name?"

I care more for things than names, but I reverence the pioneers of thought who have been cast out, trodden under foot, and crucified by the orthodox of all ages, and I think the least scientists can do for men like Mesmer, Du Potet, Puys&gur, or Mayo and Elliotson, now they are gone, is to ''build their sepulchres."

But Mr. Haweis might have added instead, the amateur Hypnotists of Science dig with their own hands the graves of many a man and woman's intellect; they enslave and paralyse freewill in their "subjects," turn immortalmeninto soulless, irresponsibleautomata, and vivisect *their souls* with as much unconcern as they vivisect the bodies of rabbits and dogs. In short, they are fast blooming into "sorcerers," and are turning science into a vast field of black magic. The rev. writer, however, lets the culprits off easily; and, remarking that he accepts

"the distinction" [between Mesmerism and Hypnotism] "without pledging himself to any theory," he adds:—

I am mainly concerned with the facts, and what I want to know is why these cures and abnormal states are trumpeted about as modern discoveries, while the "faculty" still deride or ignore their great predecessors without having themselves a theory which they can agree upon or a single fact which can be called new. The truth is we are just blundering back with toil to work over again the old disused mines of the ancients; the rediscovery of these occult sciences is exactly matched by the slow recovery of sculpture and painting in modern Europe. Here is the history of occult science in a nutshell. (1) Once known. (2) Lost. (3) Rediscovered. (4) Denied. (5) Reaffirmed, and by slow degrees, under new names, victorious. The evidence for all this is exhaustive and abundant. Here it may suffice to notice that Diodorus Siculus mentions how the Egyptian priests, ages before Christ, attributed clairvoyance induced for therapeutic purposes to Isis. Strabo ascribes the same to Serapis, while Galen mentions a temple near Memphis famous for these Hypnotic cures. Pythagoras, who won the confidence of the Egyptian priests, is full of it. Aristophanes in "Plutus" describes in some detail a Mesmeric cure—"and first he began to handle the head." Caelius Aurelianus describes manipulations (1569) for disease "conducting the hands from the superior to the inferior parts"; and there was an old Latin proverb—Ubi dolor ibi digitus, "Where pain there finger." But time would fail me to tell of Paracelsus (1462)² and his "deep secret of Magnetism"; of Van Helmont (1644)³ and his "faith in the power of the hand in disease." Much in the writings of both these men was only made clear to the moderns by the experiments of Mesmer, and in view of modern Hypnotists it is clearly with him and his disciples that we have chiefly to do. He claimed, no doubt, to transmit an animal magnetic fluid, which I believe the Hypnotists deny.

They do, they do. But so did the scientists with regard to more than one truth. To deny "an animal magnetic fluid" is surely no more absurd than to deny the circulation of the blood, as they have so energetically done.

A few additional details about Mesmerism given by Mr.Haweis may prove interesting. Thus he reminds us of the answer written by the much wronged Mesmer to the Academicians after their unfavorable Report, and refers to it as "prophetic words."

"You say that Mesmer will never held up his head again. If such is the

² This date is an error. Paracelsus was born at Zurich in 1493.

³ This is the date of Van Helmont's death; he was born in 1577.

destiny of the man it is not the destiny of the truth, which is in its nature imperishable, and will shine forth sooner or later in the same or some other country with more brilliancy than ever, and its triumph will annihilate its miserable detractors." Mesmer left Paris in disgust, and retired to Switzerland to die; but the illustrious Dr. Jussieu became a convert. Lavater carried Mesmer's system to Germany, while Puysegur and Deleuze spread it throughout provincial France, forming innumerable "harmonic societies" devoted to the study of therapeutic magnetism and its allied phenomena of thought-transference, hypnotism, and clairvoyance.

Some twenty years ago I became acquainted with perhaps the most illustrious disciple of Mesmer, the aged Baron du Potet.⁴ Round this man's therapeutic and mesmeric exploits raged, between 1830 and 1846, a bitter controversy throughout France. A murderer had been tracked, convicted, and executed solely on evidence supplied by one of Du Potet's clairvoyantes. The Juge de Paix admitted thus much in open court. This was too much for even sceptical Paris, and the Academy determined to sit again and, if possible, crush out the superstition. They sat, but, strange to say, this time they were converted. Itard, Fouquier, Guersent, Bourdois de la Motte, the cream of the French faculty, pronounced the phenomena of mesmerism to be genuine—cures, trances, clairvoyance, thought-transference, even reading from closed books; and from that time an elaborate nomenclature was invented, blotting out as far as possible the detested names of the indefatigable men who had compelled the scientific assent, while enrolling the main facts vouched for by Mesmer, Du Potet, and Puysegur among the undoubted phenomena to be accepted, on whatever theory, by medical science....

Then comes the turn of this foggy island and its befogged scientists. "Meanwhile," goes on the writer,

England was more stubborn. In 1846 the celebrated Dr. Elliot-son, a popular practitioner, with a vast *clientele*, pronounced the famous Harveian oration, in which he confessed his belief in Mesmerism. He was denounced by the doctors with such thorough results that he lost his practice, and died well-nigh ruined, if not heart-broken. The Mesmeric Hospital in Marylebone Road has been established by him. Operations were successfully performed under Mesmerism, and all the phenomena which have lately occurred at Leeds and elsewhere to the satisfaction of the doctors were produced in Marylebone fifty-six years ago. Thirty-five years ago Professor

Lister did the same—but the introduction of chloroform being more speedy and certain as an anaesthetic, killed for a time the mesmeric treatment. The public interest in Mesmerism died down, and the Mesmeric Hospital in the Marylebone Road, which had been under a cloud since the suppression of Elliotson, was at last closed. Lately we know what has been the fate of Mesmer and Mesmerism. Mesmer is spoken of in the same breath with Count Cagliostro, and Mesmerism itself is seldom mentioned at all; but, then, we hear plenty of electro-biology, therapeutic magnetism and hypnotism—just so. Oh, shades of Mesmer, Puysegur, Du Potet, Elliotson—sic vos non vobis. Still, I say Palmam qui meruit ferat. When T knew Baron du Potet he was on the brink of the grave, and nearly eighty years old. He was an ardent admirer of Mesmer; he had devoted his whole life to therapeutic magnetism, and he was absolutely dogmatic on the point that a real magnetic aura passed from the Mesmerist to the patient. "I will show you this," he said one day, as we both stood by the bedside of a patient in so deep a trance that we ran needles into her hands and arms without exciting the least sign or movement. The old Baron continued: "I will, at the distance of a foot or two, determine slight convulsions in any part of her body by simply moving my hand above the part, without any contact." He began at the shoulder, which soon set up a twitching. Quiet being restored, he tried the elbow, then the wrist, then the knee, the convulsions increasing in intensity according to the time employed. "Are you quite satisfied?" I said, "Quite satisfied"; and, continued he, "any patient that I have tested I will undertake to operate upon through a brick wall at a time and place where the patient shall be ignorant of my presence or my purpose. This," added Du Potet, "was one of the experiences which most puzzled the Academicians at Paris. I repeated the experiment again and again under every test and condition, with almost invariable success, until the most sceptical was forced to give in."

We have accused science of gliding full sail down to the Maelstrom of Black Magic, by practising that which ancient Psychology—the most important branch of the Occult Sciences—has always declared as Sorcery in its application to the *inner* man. We are prepared to maintain what we say. We mean to prove it one of these days, in some future articles, basing ourselves on facts published andtheactionsproduced by the Hypnotism of Vivisectionists themselves. That they are unconscious sorcerers does not make away with the fact that they do practice theBlackArt *bel et bien*. In short thesituationisthis. Theminorityofthelearned'physiciansand other scientists experiment in "hypnotism" becausethey have come to see something in it; while the majority of the members of the R.C.P.'s still

⁴ Baron du Potet was for years Honorary member of the Theosophical Society. Autograph letters were received from him and preserved at Adyar, our Head-quarters, in which he deplores the flippant unscientific way in which Mesmerism (then on the eve of becoming the "hypnotism" of science) was handled "par les charlatans du jour." Had he lived to see the secret science in its full travesty as hypnotism, his powerful voice might have stopped its terrible present abuses and degradation into a commercial Punch and Judy show. Luckily for him, and unluckily for truth, the greatest adept of Mesmerism in Europe of this century—is dead.

deny the actuality of animal magnetism in its mesmeric form, even under its modern mask—hypnotism. The former—entirely ignorant of thefundamentallawsof animalmagnetism—experiment athaphazard, almost blindly. To remain consistent with their declarations (a) that hypnotism is *not* mesmerism, and (b) that a magnetic aura or fluid passing from the mesmeriser (or hypnotiser) is pure fallacy they have no right, of course, to apply the laws of the older to the younger science. Hence they interfere with, and awaken to action the most dangerous forces of nature, without being aware of it. Instead of healing diseases—the only use to which animal magnetism under its new name can be *legitimately* applied—they often inoculate the subjects with their own physical as wellas mental ills and vices. For this, and the ignorance of their colleagues of the minority, the disbelieving majority of the Sadducees are greatly responsible. For, by opposing them, they impede free action, and take advantage of the Hypocratic oath, to make them powerless to admit and do much that the believers might and would otherwise do. But as Dr. A. Teste truly says in his work—"There are certain unfortunate truths which compromise those who believe in them, and those especially who are so candid as to avow them publicly." Thus the reason of hypnotism not being studied on its proper lines is self-evident.

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Years ago it was remarked: "It is the duty of the Academy and medical authorities to study Mesmerism (i.e., the occult sciences in its spirit) and to subject it to trials; finally, to take away the use and practice of it from persons quite strangers to the art, who abuse this means, and make it an object of lucre and speculation." He who uttered this great truth was "the voice speaking in the desert." But those having some experienceinoccultpsychology would go further. They would say it is incumbent on every scientific body—nay, on every government—to put an end to public exhibitions of this sort. By trying the magic effect of the human will on weaker wills; by deriding the existence of occult forces in Nature—forces whose name is legion—and yet calling out these, under the pretext that they are no independent forces at all, not even psychic in their nature, but "connected with known physical laws" (Binet and Fere), men in authority are virtually responsible for all the dire effects that are and

will be following their dangerous public experiments. Verily Karma the terrible but just Retributive Law-will visit all those who develop the most awful results in the future, generated at those public exhibitions for the amusement of the profane. Let them only thinkof dangers bred, of new forms of diseases, mental and physical, begotten by such insane handling of psychic will! This is as bad onthemoralplaneastheartificial introduction of animal matter into the human blood, by the infamous Brown Sequard method, is on the physical. They laugh at the occult sciences and deride Mesmerism? Yet this century will not have passed away before they have undeniable proofs that theidea of acrimesuggested for experiment's sake is not removed by a reversed current of the will as easily as it is inspired. They may learn that if the outward expression of the idea of a misdeed "suggested" may fade out at the will of the operator, the active living germ artificially implanted does not disappear with it; that once dropped into the seat of the human—or, rather, the animal—passions, it may lie dormant there for years sometimes, to become suddenly awakened by some unforeseen circumstance into realisation. Crying children frightened into silence by the suggestion of a monster, a devil standing in the corner, by a foolish nurse, have been known to become insane twenty or thirty years later on the same subject. There are mysterious, secret drawers, dark nooks and hiding-places in the labyrinth of our memory, still unknown to physiologists, and which open only once, rarely twice, in man's lifetime, and that only under very abnormal and peculiar conditions. But when they do, it is always some heroic deed committed by a person the least calculated for it, or—a terrible crime perpetrated, the reason for which remains for ever a mystery. . . .

Thus experiments in "suggestion" by persons ignorant of the occult laws, are the most dangerous of pastimes. The action and reaction of ideas on the *inner lower* "Ego," has never been studied so far, because that Ego itself is *terra incognita* (even when not denied) to the men of science. Moreover, such performances before a promiscuous publicare adanger in themselves. Men of undeniable scientific education who experiment on Hypnotism in public, lend thereby the sanction of their names to such performances. And then every unworthy speculator acute enough to understand the process may, by

developing by practice and perseverence the same force in himself, apply it to his own selfish, often criminal, ends. *Result on Karmic lines:* every Hypnotist, every man of Science, how-ever well-meaning and honorable, once he has allowed himself to become the unconscious instructor of one who learns but to abuse the sacred science, becomes, of course, morally the confederate of every crime committed by this means.

Such is the consequence of public "Hypnotic" experiments which thus lead to, and virtually are, BLACK MAGIC.

ANCIENT MAGIC IN MODERN SCIENCE

AULTHIER, the French Indianist, may, or may not, be taxed with too much enthusiasm when saying that India appears before him as the grand and primitive focus of human thought, whose steady flame has ended by communicating itself to, and setting on fire the whole ancient world¹—yet, he is right in his statement. It is Aryan metaphysics² that have led the mind to occult knowledge—the oldest and the mother science of all, since it contains within itself all the other sciences. And it is occultism—the synthesis of all the discoveries in nature and, chiefly, of the psychic potency within and beyond every physical atom of matter—that has been the primitive bond that has cemented into one cornerstone the foundations of all the religions of antiquity.

The primitive spark has set on fire every nation, truly, and Magic underlies now every national faith, whether old or young. Egypt and Chaldea are foremost in the ranks of those countries that furnish us with the most evidence upon the subject, helpless as they are to do as India does—to protect their paleographic relics from desecration. The turbid waters of the canal of Suez carry along to those that wash the British shores, the magic of the earliest days of PharaonicEgypt, to fill up with its crumbled dusttheBritish,French, German and Russian museums. Ancient, *historical* Magic is thus reflecting itself upon the scientific records of our own all-denying century. It forces the hand and tires the brain of the scientist, laughing at his efforts to interpret its meaning in his own materialistic way, yet helps the occultist better to understand modern Magic, the rickety, weak grandchild of her

I Essay. Preface by Colebrooke.

² It is only through Mr. Barthelemy St. Hilaire that the world has learned that "with regard to metaphysics, the Hindu genius has ever remained in a kind of infantile underdevelopment"!!

powerful, archaic grandam. Hardly a hieratic papyrus exhumed alongwiththeswathed mummy of Kingor Priest-Hierophant, or a weather-beaten, indecipherable inscription from the tormented sites of Babylonia or Ninevah, or an ancient tile-cylinder—that does not furnish new food for thought or some suggestive information to the student of Occultism. Withal, magic is denied and termed the "superstition" of the ignorant ancient philosopher.

Thus, magic in every papyrus; magic in all the religious formulae; magic bottled up in hermetically-closed vials, many thousands of years old; magic in elegantly bound, modern works; magic in the most popular novels; magic in social gatherings; magic—worse than that, SORCERY—in the very air one breathes in Europe, America, Australia: the morecivilized and cultured a nation, the more formidable and effective the effluvia of unconscious magic it emits and stores away in the surrounding atmosphere . . .

Tabooed, derided magic would, of course, never be accepted under her legitimate name; yet science has begun dealing with that ostracised science under modern masks, and very considerably. But what is in a name? Because a wolf is scientifically defined as an animal of the genus canis, does it make of him a dog? Men of science mayprefertocallthemagicinquired into by Porphyry and explained by lamblichus hysterical hypnosis, but that does not make it the less magic. The result and outcome of primitive *Revelation* to the earlier races by their "Divine Dynasties" the kings-instructors, became innate knowledge in the Fourth race, that of the Atlanteans; and that knowledge is now called in its rare cases of "abnormal" genuine manifestations, mediumship. The secret history of the world, preserved only in far-away, secure retreats, would alone, if told unreservedly, inform the present generations of the powers that lie latent, and to most unknown, in man and nature. It was the fearful misuse of magic by the Atlanteans, that led their race to utter destruction, and—to oblivion. The tale of their sorcery and wicked enchantments has reached us, through classical writers,in fragmentary bits, as legends and childish fairy-tales, and as fathered on smaller nations. Thence the scorn for necromancy, goetic magic, and theurgy. The "witches" of Thessaly are not less laughed at in our day than the modern medium

or the credulous Theosophist. This is again due to *sorcery*', and one should never lack the moral courage to repeat the term; for it is the fatally abused magic that forced the adepts, "the Sons of Light," to bury it deep, after its sinful votaries had themselves found a watery grave at the bottom of the ocean; thus placing it beyond the reach of the profane of the race that succeeded to the Atlanteans. It is, then, to sorcery that the world is indebted for its present ignorance about it. But who or what class in Europe or America, will believe the report? With one exception, none; and that exception is found in the Roman Catholics and their clergy;but even they, while bound by their religious dogmas to credit its existence, attribute to it a satanic origin. It is this theory which, no doubt, has to this day prevented magic from being dealt with scientifically.

Still, *nolens volens*, science has to take it in hand. Archaeology in its most interesting department—Egyptology and Assyriology— is fatally wedded to it, do what it may. For magic is so mixed up with the world's history that, if the latter is ever to be written at all in its completeness, giving the truth and *nothing* but the truth, there seems to be no help for it. If Archaeology counts still upon discoveries and reports upon hieratic writings that will be free from the hateful subject, then History will never be written, we fear.

One sympathises profoundly with, and can well imagine, the embarrassing position of the various savants and "F.R S.'s" of Academicians and Orientalists. Forced to decipher, translate and interpret old mouldy papyri, inscriptions on steles and Babylonian *rhombs*, they find themselves at every moment face to face with MAGIC! Votive ofi°erings,carvings,hieroglyphics, incantations—the whole paraphernalia of that hateful "superstition"—stare them in the eyes, demand their attention, fill them with the most disagreeable perplexity.Only think what must be their feelings in the following case in hand. An evidently precious papyrus is exhumed. It is the *postmortem* passport furnished to the osirified soul³ of a just-translated Prince or even Pharaoh, written in red and black characters by a

³ The reader need not be told that every soul newly born into its cycle of 8000 years after the death of the body it animated, became, in Egypt, an "Osiris,*" was osirified, viz., the personality became reduced to its higher principles, a spirit.

learned and famous scribe, say of the IVth Dynasty, under the supervision of an Egyptian Hierophant—a class considered in all the ages and held by posterity as the most learned of the learned, among the ancient sages and philosophers. The statements therein were written at the solemn hours of the death and burial of a King-Hierophant, of a Pharaoh and ruler. The purpose of the paper is the introduction of the"soul"totheawful region of Amenti, before its judges, there where a lie is said to outweigh every other crime. The Orientalist carries away the papyrus and devotes to its interpretation days, perhaps weeks, of labour, only to find in it the following statement: "In the XIII th year and the second month of *Schomoo*, in the 28th day of the same, we, the first High-priest of Ammon, the king of the gods, Penotman, the son of the delegate(or substitute)⁴ for the High-priest Pion-kimoan, and the scribe of the templeof Sosser-soo-khons and of the Necropolis Bootegamonmoo, began to dress the late Prince OozirmariPionokha, etc., etc., preparing him for eternity. When ready, the mummy was pleased to arise and thank his servants, as also to accept a cover worked for him by the hand of the "lady singer," Nefrelit Nimutha, gone into eternity the year so and so—"some hundred years before!" The whole in hieroglyphics.

"MAGIC" IN MODERN SCIENCE

This may be a mistaken reading. There are dozens of papyri, though, well authenticated and recording more curious readings and narratives than that corroboratedin this, by Sanchoniathon and Manetho, by Herodotus and Plato, Syncellus and dozens of other writers and philosophers, who mention the subject. Those papyri note down very often, as seriously as any historical fact needing no special corroboration, whole dynasties of *Kings-manes*, viz., of *phantoms and ghosts*. The same is found in the histories of other nations.

All claim for their first and earliest dynasties⁵ of rulers and kings, what the Greeks called *Manes* and the Egyptians *Ourvagan*, "gods," etc. Rossellius has tried to interpret the puzzling statement, but in

vain. "The word manes meaning *urvagan*" he says, "and that term in its literal sense signifying *exterior image*, we may suppose, if it were possible to bring down that dynasty within some historical period—that the word referred to *some form of theocratic government, represented by the images of the gods* and *priests*" !!6

A dynasty of, to all appearance, *living*, at all events acting and ruling, kings turning out to have been simply mannikins andimages, would require, to be accepted, a far wider stretch of modern credulity than even "kings' phantoms."

Were these Hierophants and Scribes, Pharaohs and King-Initiates all fools or frauds, confederates and liars, to have either believed themselves or tried to make other people believe in such cock-and-bull stories, if there were no truth at the foundation? And that for a long series of millenniums, from the first to the last Dynasty?

Of the *divine* Dynasty *of Manes*, the text of the "SecretDoctrine" will treat more fully ;but a few such feats may be recorded from genuine papyri and the discoveries of archaeology. The Orientalists have found a plank of salvation: though forced to publish the contents of some famous papyri, they now call them *Romances* of the days of Pharaoh so-and-so. The device is ingenious, if not absolutely honest. The literary Sadducees may fairly rejoice.

One of such is the so-called "Lepsius Papyrus" of the Berlin Museum, now purchased by the latter from the heirs of Richard Lepsius. It is written in hieratic characters in the archaic Egyptian (old Coptic) tongue, and is considered one of the most important archaeological discoveries of our age, inasmuch as it furnishes dates for comparison, and rectifies several mistakes in the order of dynastical successions. Unfortunately *its most important fragments* are *missing*. The learned Egyptologists who had the greatest difficulty in deciphering it have concluded that it was "an historical romance of

^{4 &}quot;Substitute" was the name given to the father of the "Son" adopted by the High-priest Hierophant; a class of these remaining unmarried, and adopting "Sons" for purposes of transmission of power and succession.

⁵ The Secret Doctrine teaches that those dynasties were composed of divine beings, "the ethereal images of human creatures," in reality, "gods." in their luminous astral bodies; the Sishta of preceding manyantaras.

⁶ Rossellius (vol. i, "Storia degli Monumenti dell Egitto," (p. 8). He adds that Manetho and the old Chronicles agree in translating the word manes by nekhues. In the Chronicles of Eusebius Pamphilius, discovered at Milan and annotated by Cardinal Mai, the word nekhues is also translated urvagan, "the exterior shadow" or "ethereal image of men"; in short, the astral body.

the XVIth century B.C.,⁷ dating back to events that took place during the reign of Pharaoh Cheops, the supposed builder of the pyramid of that name, who flourished in the XXVIth(?) century before our era." It shows Egyptian life and the state of society at the Court of that great Pharaoh, nearly 900 years before the little unpleasantness between Joseph and Mrs. Potiphar.

The first scene opens with King Cheops on his throne, surrounded by his sons, whom he commands to entertain him with narratives about hoar antiquity and the miraculous powers exercised by the celebrated sages and magicians at the Court of his predecessor. Prince Chefren then tells his audience how a magus during the epoch of Pharaoh Nebkha fabricated a crocodile out of wax and endowed him with life and obedience. Having been placed by a husband in the room of his faithless spouse, the crocodile snapped at both the wife and her lover, and seizing them carried them both into the sea. Another prince told a story of his grandfather, the parent of Cheops, Pharaoh SENEFRU. Feeling seedy, he commanded a magician into his presence, who advised him as a remedy the spectacle of twenty beautiful maidens of the Court sporting in a boat on the lake near by. The maidens obeyed and the heart of the old despot was "refreshed." But suddenly one of the ladies screamed and began to weep aloud. She had dropped into the water, 120 feet deep in that spot, a rich necklace. Then a magician pronounced a formula, called the genii of the airandwater to his help, and plunginghis hand into the waves brought back with it the necklace. The Pharaoh was greatly struck with the feat. He looked no more at the twenty beauties, "divested of their clothes, covered with nets, and with twenty oars made of ebony and gold"; but commanded that sacrifices should be made to the manes of those two magicians when they died. To this Prince Gardadathu remarked that the highest among such magicians never die, and that one of them lived to that day, more than a centenarian, at the town of Deyd-Snefroo; that his name was Deddy; and that he had the miraculous power of reuniting cut-off heads to their bodies and recalling the whole to life, as also full authority and sway over the lions of the desert. He,

Deddy, knew likewise where to procure the needed expensive materials for the temple of the god Thoth (the *wisdom* deity), which edifice Pharaoh Cheops was anxious to raise near his great pyramid. Upon hearing this, the mighty king Cheops expressed desire to see the old sage at his Court! Thereupon the Prince Gardadathu started on his journey, and brought back with him the great magician.

After long greetings and mutual compliments and obeisance, according to the papyrus, a long conversation ensued between the Pharaoh and the sage, which goes on briefly thus:—

"I am told, oh sage, that thou art able to reunite heads severed from their bodies to the latter."

"I can do so, great King,"—answered Deddy.

"Let a criminal be brought here, without delay," quoth the Pharaoh.

"Great King, my power does not extend to men. I can resurrect only animals,"—remarked the sage.

A goose was then brought, its head cut off and placed in the east corner of the hall, and its body at the western side. Deddy extended his arm in the two directions in turn and muttered a magic formula. Forthwith the body of the bird arose and walked to the centreof the hall, and the head rolled up to meet it. Then the head jumped on the bleeding neck; the two were reunited; and the goose began to walk about, none the worse for the operation of beheading.

The same wonderful feat was repeated by Deddy upon canaries and a bull. After which the Pharaoh desired to be informed with regard to the projected temple of Thoth.

The sage-magician knew all about the old remains of the temple, hidden in a certain house at Heliopolis: but he had no right to reveal it to the king. The revelation had to come from the eldest of the three triplets of Rad-Dedtoo."The latter is the wife of the priest of the Sun, at the city of Saheboo. She will conceive the triplet-sons from the sun-god, and these children will play an important part in the history of the land of Khemi (Egypt), inasmuch as they will be called to rule it. The eldest, before he becomes a Pharaoh, will be High-priest of the Sun at the city of Heliopolis.

⁷ Suppositiously—during the XVIIIth Dynasty of kings, agreeably to Manetho's Synchronistic Tables, disfigured out of recognition by the able Eusebius, the too clever Bishop of Caesarea.

"Upon hearing this, Pharaoh Cheops rent his clothes ingrief:his dynasty would thus be overthrown by the son of the deity to whom he was actually raising a temple!"

Here the papyrus is torn; and a large portion of it being missing, posterity is denied the possibility of learning what Pharaoh Cheops undertook in this emergency.

The fragment that follows apprizes us of that which is evidently the chief subject of the archaic record—the birth of the three sons of the sun-god. As soon as Rad-Dedtoo felt the pangs of childbirth the great sun-god called the goddesses Isis, Nephthys, Mesehentoo, and Hekhtoo, and sent them to help the priestess, saying: "She is in labour with my three sons who will, one day, be the rulers of this land. Help her, and they will raise temples for you, will make innumerable libations of wine and sacrifices." The goddesses did as they were asked, and three boys, each one yard long and with very long arms, 8 were born. Isis gave them their names and Nephthys blessed them, while the two other goddesses confirmed on them their glorious future. The three young men became eventually kings of the Vth Dynasty, their names being Ouserkath, Sagoorey and Kakay. After the goddesses had returned to their celestial mansions some great miracles occurred. The corn given the mother-goddesses returned of itself into the cornbin in an out-house of the High-priest, and the servants reported that voices of invisibles were singing in it the hymns sung at the birth of hereditary princes, and the sounds of music, and dances belonging to thatritewere distinctly heard. This phenomenon endangered, later on, the lives of the future kings—the triplets.

A female slave having been punished once by the High priestess, the former ran away from the house, and spoke thus to the assembled crowds: "How dare she punish me, that woman who gave birth to three kings? I will go and notify it to Pharaoh Cheops, our lord."

At this interesting place, the papyrus is again torn; and the reader left once more in ignorance of what resulted from the denunciation, and how the three boy-pretenders avoided the persecution of the paramount ruler.9

Another magical feat is given by Mariette Bey {Mori. Dir. pi. 9, Persian epoch) from a tablet in the Bulak Museum, concerning the Ethiopian kingdom founded by the descendants of the High-priests of Ammon, wherein flourished absolute theocracy. It was the god himself, it appears, who selected the kings at his fancy, and "the stele 114 which is an official statement about the election of Aspa-lout,shows how such events took place." (Gebel-Barkal.)The army gathered near the Holy Mountain at Napata, choosing six officers who had to join other delegates of state, proposed to proceed to the election of a king.

"Come," reads the inscribed legend, "come, let us choose a master who would be like an irresistible young bull." And the army began lamenting, saying—"Our master is with us, and we know him not!" And others remarked, "Aye, but we can know him, though till now no one save Ra (the god) does so: may the great God protect him from harm wherever he be" Forthwith the whole army cried out—"But there is that god Ammon-Ra, in the Holy Mountain, and he is the god of Ethiopia! Let us to him; do not speak in ignorance of him, for the word spoken in ignorance of him is not good. Let him choose, that god, who is the god of the kingdom of Ethiopia, since the days of Ra He will guide us, as the Ethiopian kings are all his handiwork, and he gives the kingdom to the son whom he loves." "This is what the entire army saith: Tt is an excellent speech, in truth ... a million of times'."

Then the narrative shows the delegates duly purified, proceeding

⁸ Long arms in Egypt meant as now in India, a sign of mahatmaship, or adeptship.

⁹ This is the more to be regretted—says the translator of the papyrus—that "legendary details, notwithstanding the contents of the Lepsius papyrus are evidently based upon the most ancient traditions; and as a matter of fact emanate from eye-witnesses and first-hand evidence." The data in the papyrus are absolutely coincident with facts known, and agree with the discoveries made by Egyptology and the undeniable information obtained concerning the history and far away events of that "land of mystery and riddle," as Hegel called it. Therefore we have no cause whatever to doubt the authenticity of the general narrative contained in our papyrus. It reveals to us, likewise, entirely new historical facts. Thus, we learn, first of all, that (Kefren) or Chephren was the son of Cheops; that the Vth Dynasty originated in the town of Saheboo; that its first three Pharaohs were three brothers—and that the elder of the triplets had been a solar High-priest at Heliopolis before ascending to the throne. Meagre as the details appear, they become quite important in the history of events removed from us by more than forty centuries. Finally, the Lepsius papyrus is an extremely ancient document written in the old Egyptian tongue, while the events narrated therein may, for their originality (magic?!/, be placed on a par with the best Egyptian narratives translated and published by the famous Egyptologist and Archaeologist, Mr. Maspero, in his work called "Contes de l'ancienne Egypte."

to the temple and prostrating themselves before the huge statue of Ammon-Ra, while framing their request. "The Ethiopic priests are mighty ones. They know how to fabricate miraculous images and statues, capable of motion and speech, to serve as vehicles for the gods; it is an art they hold from their Egyptian ancestors."

All the members of the Royal family pass in procession before the statue of Ammon-Ra—still it moveth not. But as soon as Aspalout approaches it, the huge statue seizes him with both arms, and loudly exclaims—"This is your king! This is your Master who will make you livq!": and the army chiefs greet the new Pharaoh. He enters into the sanctuary and is crowned by thegod, personally, and with his own hands; then joins his army. The festival ends with the distribution of bread and beer." (Gebel-Barkal.)

There is a number of papyri and old inscriptions proving beyond the slightest doubt that for thousands of years High-priests, magicians and Pharaohs *believed*—as well as the masses—in magic, besides practising it; the latter being liable to be referred to clever jugglery. The statues *had* to be *fabricated*; for, unless they were made of certain elements and stones, and were prepared under certain constellations, in accordance with the conditions prescribed by magic art, the *divine* (or *infernal*, if some will so have it) powers, or Forces, that were expected to animate such statues and images, could not be made to act therein. A galvanic-battery has to be prepared of specific metals and materials, not made at random, if one would have it produce *its* magical effects. A photograph has to be obtained under specific conditions of darkness and certain chemicals, before it can result in a given purpose.

Some twenty years ago, archaeology was enriched with a very curious Egyptian document giving the views of that ancient religion upon the subject of ghosts *[manes]* and magic in general. It is called the "Harris papyrus on Magic" (Papyrus Magique). It is extremely curious in its bearing upon the esoteric teachings of Occult Theosophy, and is very suggestive It is left for our next article—on Magic.

H. P. BLAVATSKY

SOME SCIENTIFIC QUESTIONS ANSWERED

[A letter was recently received by the Editor from one of our most eminent Australasian Fellows, asking some questions in science of such importance that the replies are, with permission, copied for the edification of our readers. The writer is a Chela who has a certain familiarity with the terminology of Western science. If we mistake not this is the first time that the rationale of the control exercised by an Adept Occultist over the relations of atoms, and of the phenomena of the "passage of matter through matter," has been so succinctly and yet clearly explained.—Ed., *Theosophist.*, *J*

REPLIES TO PROF. 's QUESTIONS

(1) The phenomenon of "osmosing" (extracting. Ed.) your note from the sealed envelope in which it was sewn with thread, and substituting for it his own reply, without breaking either seal or thread, is to be considered first. It is one of those complete proofs of the superior familiarity with and control over atomic relations among our Eastern Adepts as compared with modern Western men of science, to which "custom has mademefamiliar. It was the same power as that employed in the formation of the letter in the air of your room at __; in the case of many other air-born letters; of showers of roses; of the gold ring which leaped from the heart of a moss-rose while held in_____'s hand; of a sapphire ring doubled for a lady of high position here, a short time ago, and of other examples. The solution is found in the fact that the "attraction of cohesion" is a manifestation of the Universal Divine Force, and can be interrupted and again set up as regards any given group of atoms in the relation of substance by the same Divine power as that localised in the human monad. Atma, the eternal spiritual principle in man, has the same quality of power over brute force as has the Universal Principle of which it is a part. Adeptship is but the crown of spiritual self-evolution, and the powers of spirit develop themselves successively in the ratio of the aspirant's progress upward, morally and spiritually. This you see is to place our modern Evolution Theory upon a truly noble basis, and to give it the character of a lofty spiritual, instead of a debasing materialistic, philosophy. I have always felt sure of the warm approval of the most intuitional of your western men of science when they should come to take this view of our Aryan Arhat Science.

You should not find much difficulty in drawing the line between the "Spook" and the "Adept." The latter is a living man often fit to stand as the grandest ideal of human perfectibility; the former is but undissolved congeries of atoms recently associated in a living person as his lower—or better, his coarser, and more materialistic—corporeal envelopes; which during life were confined in the outermost shell, the body, and after death released to linger for a while in the astral (Etheric or Akasic) strata nearest the earth's surface. The law of magnetovital affinities explains the attraction of these "shells" to places and persons; and if you can postulate to yourself a scale of psychic specific gravity, you may realise how the greater density of a "soul" weighted with the matter of base (or even un-spiritual, yet not animal) feelings would tend to impede its rising to the clear realm of spiritual existence. Though I am conscious of the imperfection of my scientific exegesis, I feel that your superior capacity for apprehending natural laws, when a hint has been given, will fill all lacunae.

Note that no Adept even can disintegrate and reform any organism above the stage of vegetable: the Universal *Manas* has in the animal begun and in man completed its differentiation into individual entities: in the vegetable it is still an undifferentiated universal spirit, informing the whole mass of atoms which have progressed beyond the inert mineral stage, and are preparing to differentiate. There is movement even in the mineral, but it is rather the imperceptible quiver of that Life of life, than its active manifestation in the production of form—a ramification which attains its maximum not, as you may suppose, in the stage of physical man, but in the higher one of the Dhyan Chohans, or Planetary Spirits, /.<?.,once human beings who have run through the scale of evolution, but are not yet reunited, or coalesced with Parabrahma, the Universal Principle.

Before closing, a word more about the "passage of matter through matter." Matter may be defined as condensed Akasa (Ether); and inatomizing, differentiates, as the watery particles differentiate from superheated steam when condensed. Restore the differentiated matter to the state ante of undifferentiated matter, and there is no difficulty in seeing how it can pass through the interstices of a substance in the differentiated state, as we easily conceive of the travelof electricity and other forces through their conductors. The profound art istobe ableto interrupt at will and again restore the atomic relations in a given substance: to pull the atoms so far apart as to make them invisible, and yet hold them in polaric suspense, or within the attractive radius, so as to make them rush back into their former cohesive affinities. and re-compose the substance. And since we have had a thousand proofs that this knowledge and power is possessed by our Adept Occultists, who can blame us for regarding as we do those Adepts as the proper masters in science of the cleverest of our modern authorities? And then, as I above remarked, the outcome of this Philosophy of the Aryan Sages is to enable humanity to refresh the moral and awaken the spiritual nature of man, and to erect standards of happiness higher and better than those by which we now govern ourselves.

Theosophist, October, 1880

THE PRALAYA OF MODERN SCIENCE

of what we call the Universe—offers but little of hope or consolation for our descendants. Two of her votaries, Messrs. Thompson and Klansius, have simultaneously reached the conclusive opinion that the Universe is doomed, at some future and not so very remote period, to utter destruction. Such is also the theory of several other astronomers, one and all describing the gradual cooling off and the final dissolution of our planet in terms nearly identical with those used by the greatest Hindu, and even some of the Greek sages. One might almost think he were reading over again Manu, Kanada, Kapila and others. The following are some of the newest theories of our Western *pandits*.

"All theponderablemasses which must have separated themselves at the evolution or first appearance upontheearth from the primeval mass ot matter, will reunite themselves again into one gigantic and boundless heavenly body, every visible movement in this mass will be arrested, and alone the molecular motion will remain which will equally spread throughout this ponderous body under the form of heat. . ." say our scientists. Kanada, the atomist, the old Hindu sage, said as much. . . ."In creation,"he remarks,"two atoms begin to be agitated, till at length they become separated fromtheir former union, and then unite, by which a new substance is formed, which possesses the qualities of the things from which it arose."

Lohschmidt, the Austrian professor of mathematics and astronomy, and the English astronomer, Proctor, treating of the same subject, have both arrived at another and different view of the cause from which will come the future dissolution of the world. They attribute it to the

gradual and slow cooling off of the sun, which must result in the final extinction of this planet some day. All the planets will then, following the law of gravitation, tumble in upon the inanimate, cold luminary, and coalesce with it into one huge body. If this thing should happen, says the German *savant*, *and* such a period begins, then it is impossible that it should last forever, for such a state would not be one of absolute equilibrium. During a wonderful period of time, the sun, gradually hardening, will go on absorbing the radiant heat from the universal space, and concentrating it around itself.

But let us listen to Professor Tay upon this question. According to his opinion, the total cooling off of our planet will bring with it unavoidable death. Animal and vegetable life, which will have, previous to that event, shifted its quarters from the northern and already frozen regions to the equator, will then finally and for ever disappear from the surface of the globe, without leaving behind any trace of its existence. The earth will be wrapped in dense cold and darkness; the now ceaseless atmospheric motion will have changed into complete rest and silence; thelast clouds will have poured upon the earth their last rain; the course of the streams and rivers, bereaved of their vivifier and motor—the sun—will be arrested; and the seas frozen into a mass. Our globe will have no other light than the occasional glimmering of the shooting stars, which will not yet have ceased to penetrate into and become inflamed in our atmosphere. Perhaps, too, the sun, under the influence of the cataclysm of the solar mass, will yet exhibit for a time some signs of vitality; and thus heat and light will re-enter it for a short space of time, but thereactionwill not fail to re-assert itself: the sun, powerless and dying, will again become extinct and this time for ever. Such a change was remarked and actually took place in the now extinct constellations of the Swan, the Crown, and the Ophiuchus in the period of their cooling. And the same fate will reach all the other planets, which, meanwhile, obeying the law of inertia, will go on revolving around the extinct sun.... Further on, the learned astronomer depicts the last year of the expiring globe in the very words of a Hindu philosopher depicting thcPralaya:—"Cold and death blow from the northern pole, and spread along the entire face of the earth, ninetenths of which have already expired. Life, hardly perceptible, is all

concentrated at her heart—the equator, in the few remaining regions which are yet inhabited, and where reigns a complete confusion of tongues and nationalities. The surviving representatives of the human race are soon joined by the largest specimens of animals which are also driven there by the intense cold. One object, one aspiration huddles together all this varied mass of beings—thestrug-gle for life. Groups of animals, without distinction of kinds, crowd together intooneherdin the hope of finding some heat in the rapidly freezing bodies; snakes threaten no more with their poisonous fangs, nor lions and tigers with their sharp claws; all that each of them begs for is-life, nothing but life, life to the last minute! At last comes that lastday, and the paleand expiring rays of the sun illuminate the following gloomy scene; the frozen bodies of the last of the human family, dead from cold and lack of air, on the shores of a likewise rapidly freezing, motionless sea!" ...

The words may not be precisely those of the learned professor for they are utilized from notes taken in a foreign language; but the ideas are literally his. The picture is indeed gloomy. But the ideas, based upon scientific, mathematical deductions are *not* new, and we have read in a Hindu author of the pre-christian era a description of the same catastrophe as given by Manu in a language far superior to this one. The general reader is invited to compare, and the Hindu reader to see in this, one more corroboration of the great wisdom and knowledge of his forefathers, who anticipated the modern researches in almost everything.

"Strange noises are heard, proceeding from every point. .. . These are the precursors of the Night of Brahma. Duskrises atthehorizon and the sun passes away.... Gradually light pales, heat diminishes, uninhabitable spots multiply on the earth, the air becomes more and more rarified; the springs of waters dry up, the great rivers see their waves exhausted, the ocean shows its sandy bottom, and plants die. . . . Life and motion lose their force, planets can hardly gravitate in space; they are extinguished one by one.... Surya (the Sun) flickers and goes out; matter falls into dissolution; and Brahma (the creative force) merges backinto Dyaus, the unrevealed, and histask being accomplished, he falls asleep.... Night for the Universe has come!" . .. (By Vamadeva.)

THE IMPERFECTIONS OF SCIENCE

R.ROBERT WARD, discussing the questions of Heat and Light in the November Journal of Science, shows Lus how utterly ignorant is science about one of the commonest facts of nature—the heat of the sun. He says:—"The question of the temperature of the sun has been the subject of investigation by many scientists. Newton, one of the first investigators of the problem, tried to determine it, and after him all the scientists who have been occupied with calorimetry have followed his example. All have believed themselves successful, and have formulated their results with great confidence. The following, in the chronological order of the publication of the results, are the temperature (in centigrade degrees) found by each of them: Newton, 1,669,300°; Pouillet, 1,461°; Zollner, 102,200°; Secchi, 5,344,840°; Ericsson, 2,726,700°; Fizeau, 7,500°; Waterston, 9,000,000°; Spoeren, 27,000°; . . . Deville, 9,500°; Soret, 5,801,846°; Vicaire, 1,398°; Violle, 1,500°; Rosetti, 20,000°. The difference is, as 1,400° against 9,000,000°, or no less than 8,998,600°! There probably does not exist in science a more astonishing contradiction than that revealed in these figures." And again. Ever since the science of geology was born, scientists have accepted the theory that the heart of our globe is still a mass of molten matter, or liquid fire and only a thin crust is cool and solid. Assuming the earth's diameter to be about 9,000 miles, this crust they have estimated to be relatively to it only as thick as the film of a huge soap-bubble to its entire diameter. And they have assumed that the alleged increasing temperature in certain deep mines as wego from the surface downwards supported this theory. But science, through the mouth of Mr. Ward, rebukes this as a fallacious theory though still without sufficient data—"it is confidently asserted that the interior of the earth is in a red-hot molten condition, and that it is radiating its heat into space, and so growing colder. One of the results of the Challenger and other explorations of the deep ocean is to determine that the water towards its bottom is freezing cold. Considering that the ocean covers nearly three-fourths of the entire globe, this fact certainly does not support the theory of central heat accompanied by radiation. The coldest water, it is true, usually sinks by its greater weight towards the bottom, and that, it may be said, accounts for its coldness; but, on the theory of radiation the water of the ocean has been for long geological ages supported on the thin crust of the earth, through which the central heat has been constantly escaping; and yet it is still of freezing coldness! Experience would say that the heat cannot have escaped through the water without warming it, because the capacity of water for heat is greater than that of any other substance. We can no more imagine such a radiation, and consequent accumulation of heat in the ocean, without the natural result of a great rise in temperature, than we can believe in a pot resting for hours on a hot fire without the usual result of boiling water. We have no reason, therefore, to believe, as has been suggested, that the earth is growing colder, or that we, in common with all living things, are destined to be frozen out of existence and the earth itself finally swallowed up by the sun."

And now let us ask our smart young graduates of Bombay, Calcutta, Madras and Lahore how they like this viewof the infallibility of that modern science for whose sake they are ready to abandon the teachings of their ancestors. Is there anything more unscientific in their speculations, granting, even, that they are as stupid?