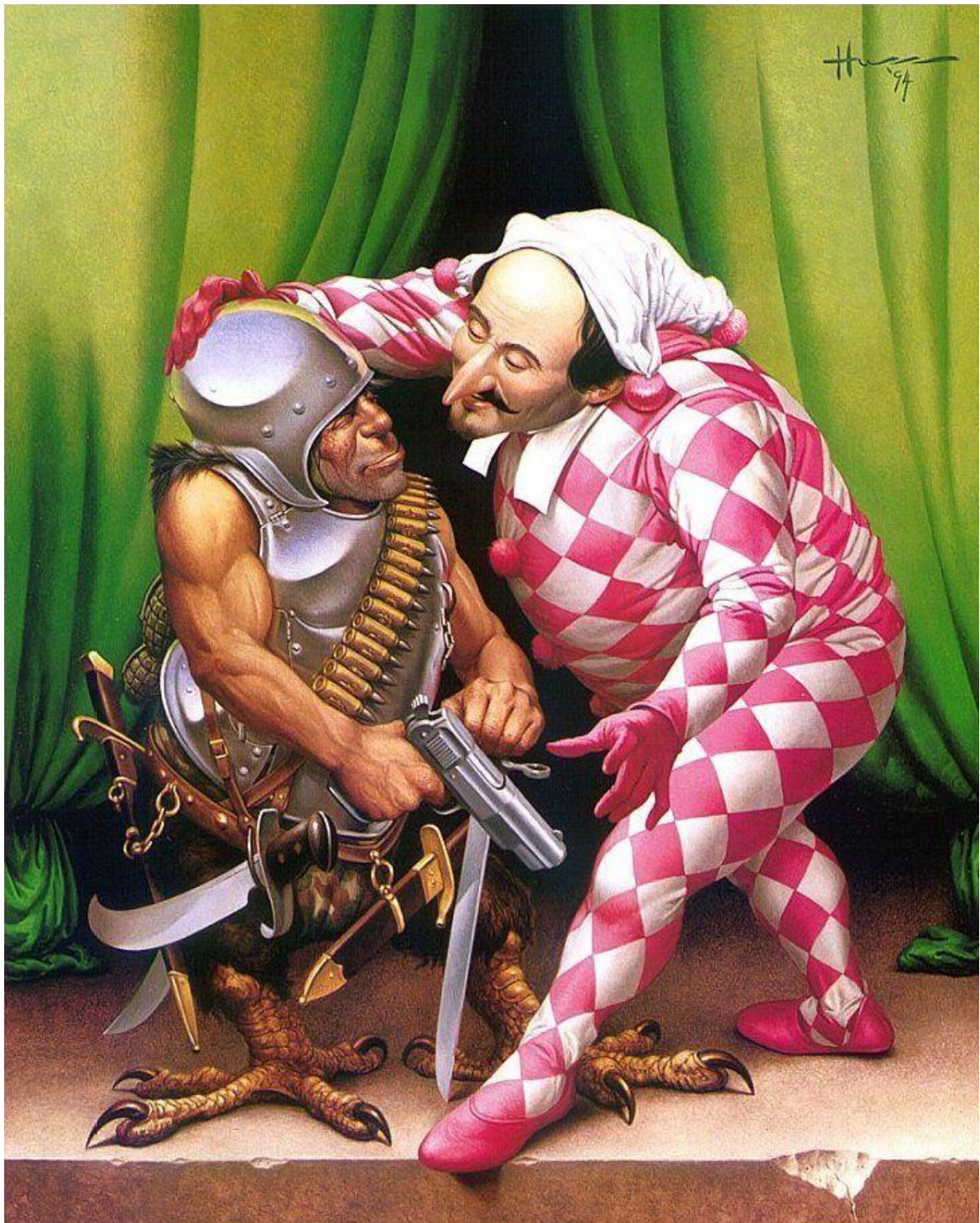


# *Madame Blavatsky on The Boogeymen of Science*



## Part 1

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**T**HE FANATICISM OF BLANK NEGATION is often more tenacious, more dangerous, and always far harder to deal with, and to combat, than that of mere assumption. Hence — as a result justly complained of — the gradual and steady crumbling of old and time-honoured ideals; the daily encroachment, and growing supremacy of the extreme physico-materialistic<sup>1</sup> thought; and a stubborn opposition to, and ignoring by, the major *portion* of Western society, of those psychological facts and phenomena advocated by the minority and proved by them as conclusively as a mathematical equation. Science, we are often told, is the necessary enemy of any and every metaphysical speculation, as a mode of questioning nature, and of occult phenomena under all their Protean forms; hence — of MESMERISM and HOMEOPATHY among the rest.

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<sup>1</sup> The expression “physico-materialism,” as well as its pendant “spirito” or “metaphysico-materialism,” may be newly coined words, but some such are rigorously necessary in a publication like *The Theosophist* and with its present non-English editor. If they are not clear enough, we hope C.C.M. or some other friend will suggest better. In one sense every Buddhist as well as every Occultist and even most of the educated Spiritualists, are, strictly speaking, Materialists. The whole question lies in the ultimate and scientific decision upon the nature or essence of FORCE. Shall we say that Force is — Spirit, or that Spirit is — a force? Is the latter physical or spiritual, *Matter* or SPIRIT? If the latter is something — it must *be* material, otherwise it is but a pure abstraction, a *no*-thing. Nothing which is capable of producing an effect on any portion of the physical — objective or subjective — Kosmos can be otherwise than material. Mind — whose enormous potentiality is being discovered more and more with every day, could produce *no* effect were it not material; and believers in a personal God, have themselves either to admit that the deity in doing its work has to use material force to produce a physical effect, or — to advocate miracles, which is an absurdity. As A.J. Manley, of Minnesota, very truly observes in a letter:

“It has ever been an impossibility with me to realize or comprehend an effect, which requires motion or force, as being produced by ‘nothing.’ The leaves of the forest are stirred by the gentlest breeze, and yet withhold the breeze, and the leaves cease to move. While gas continues to escape from the tube, apply the match and you will have a brilliant light; cut off the supply and the wonderful phenomenon ceases. Place a magnet near a compass, and the needle is attracted by it; remove the former and the needle will resume its normal condition. By will power the mesmerist compels his subject to perform various feats, but he becomes normal again when the will is withdrawn.

“I have observed in all physical phenomena, that when the propelling force is withdrawn, the phenomena invariably cease. From these facts, I infer that the producing causes must be material, though we do not see them. Again, if these phenomena were produced by ‘nothing,’ it would be impossible to withdraw the producing force, and the manifestations would never cease. Indeed, if such manifestations ever existed, they must of necessity be perpetual.”

Concurring fully with the above reasoning, it thus becomes of the utmost necessity for us, and under the penalty of being constantly accused of inconsistency, if not of flat contradictions, to make a well-marked difference between those *materialists* who, believing that nothing can exist outside of matter in however sublimated a state the latter, yet believe in various subjective forces unknown to, only because as yet undiscovered by, science; rank sceptics and those *transcendentalists* who, mocking at the majesty of truth and fact, fly into the face of logic by saying that “nothing is impossible to God”; that he is an extra-cosmic deity who created the universe out of nothing, was never subject to law, and can produce a *miracle* outside of all physical law and whenever it pleases him, *etc.*



It is grossly unfair, we think, to lay the blame so sweepingly at the door of genuine science. True science — that is, knowledge without bigotry, prejudice, or egotism — endeavours but to clear away all the rubbish accumulated by generations of false priests and philosophers. Sciolism<sup>1</sup> — that is, superficial learning, vain, narrow-minded and selfishly bigoted — unable to discern fact from false appearances, like a dog barking at the moon, growls at the approach of everything outside the limits of the narrow area of her action. True Science sternly enforces the discrimination of fact from hasty conclusion, and the true man of science will hardly deny that, of which the remotest possibility has once been demonstrated to him. It is but the unworthy votaries of science, those who abuse her name and authority and degrade her by making of her a shield behind which to give free sway to their narrow preconceptions, who alone ought to be held answerable for the *suppressio veri*<sup>2</sup> that is so common. To such it is that applies the pungent remark, recently made by a German physician: “he who rejects anything *a priori* and refuses it a fair trial, is unworthy of the name of a man of science; nay, *even of that of an honest man.*”<sup>3</sup>

The remedy best calculated to cure an unprejudiced man of science of a chronic disbelief, is the presentation to him of those same unwelcome facts he had hitherto denied in the name of exact science, as in reconciliation with that science, and supported by the evidence of her own unimpeachable laws. A good proof of this is afforded in the list of eminent men who, if they have not altogether passed “with arms and baggage” to the “enemy’s” camp, have yet bravely stood up for, and defended the most phenomenal facts of modern spiritualism, as soon as they had discovered them to be a scientific reality. It needs no close observer, but simply an unbiased mind, to perceive that stubborn, unintellectual scepticism, that knows no middle ground and is utterly unnameable to compromise, is already on the wane. Büchner’s and Moleschott’s gross conceptions of matter, have found their natural successor in the ultra-vagaries of Positivism, so graphically dubbed by Huxley as “Roman Catholicism minus Christianity,” and the extreme Positivists have now made room for the Agnostics. Negation and physico-materialism are the first twin progeny of young exact science. As the matron grows in years and wisdom, Saturn-like, she will find herself compelled to devour her own children. Uncompromising physico-materialism is being driven to its last entrenchments. It sees its own ideal — if an insane desire to convert everything that exists within the area of our limited *visible* universe into something that can be seen, felt, tasted, measured, weighed, and finally bottled by the aid of our physical senses may be called an “ideal” — vanishing like a mist before the light of awkward fact, and the daily discoveries made in the domain of invisible and intangible matter, whose veil is more and more rent with every such new discovery. The grim ideal is receding farther and farther; and the explorers into those regions where matter, which had been hitherto made subject to, and within the scope of the mental perceptions of, our *physical* brain escapes the control of both and loses its name — are also fast losing their footing. Indeed, the high pedestal on which gross matter has hitherto been elevated, is fairly breaking down. Dagon’s feet

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<sup>1</sup> [Opinionating upon subjects of which one has only superficial knowledge.]

<sup>2</sup> [A misrepresentation of truth by the omission or suppression of certain key facts; *cf. suggestio falsi.*]

<sup>3</sup> G. Jaeger

are crumbling under the weight of new facts daily gathered in by our scientific negators; and while the fashionable idol has shown its feet of clay, and its false priests their “faces of brass,” even Huxley and Tyndall, two of the greatest among our great men of physical science, confess that they had dreamed a dream, and found their Daniel (in Mr. Crookes) to explain it by demonstrating “Radiant matter.” Within the last few years a mysterious correlation of words, a scientific legerdemain shuffling and shifting of terms, has occurred so quietly as to have hardly attracted the attention of the uninitiated. If we should personify Matter, we might say that it awoke one fine morning to find itself transformed into FORCE. Thus, the stronghold of gross physical matter was sapped at its very foundation; and were Mr. Tyndall thoroughly and unexceptionally honest, he ought to have paraphrased by this time his celebrated Belfast manifesto, and say: “In FORCE I find the promise and potency of every form of life.” From that time began the reign of Force and the foreshadowing of the gradual oblivion of MATTER, so suddenly obliged to abdicate its supremacy. The Materialists have silently and unostentatiously transformed themselves into Energists.

But the old fogies of Conservative Science will not be so easily entreated into new ideas. Having refused for years the name of Force to Matter, they now refuse to recognize the presence of the former — even when legitimately recognized by many of their eminent colleagues — in the phenomena known as Hypnotism, Mesmerism, and Homeopathy. The potentiality of Force is sought to be limited in accordance with old prejudices. Without touching that group of manifestations, too mysterious and abnormal to be easily assimilated by the majority of the generally ignorant and always indifferent public (though vouched for by those lights of Science, named Wallace, Crookes, Zöllner, *etc.*), we will only consider a few of the more easily verifiable, though equally rejected, facts. We have in mind the above-named branches of psycho-physiological science, and shall see what several *savants* — outside the Royal Society of London — have to say. We propose to collect in these notes a few of the observations of Dr. Charcot upon Hypnotism — the old Mesmerism under its new name; and upon Homeopathy, by the famous Dr. Gustave Jaeger, together with certain arguments and remarks thereupon, by competent and unbiased French, German and Russian observers. Here, one may see Mesmerism and Homeopathy discussed and supported by the best medical and critical authorities, and may find out how far both “sciences” have already become entitled to recognition. To call an old fact by a new name does not change the nature of that fact, any more than a new dress changes an individual. Mesmerism, for being now called “Hypnotism,” and “Electro-biology,” is none the less that same animal magnetism hooted out from all the Academies of Medicine and Science at the beginning of our century. The wonderful experiments, recently produced in the hospitals by the world-famous Dr. Charcot, of Paris, and by Professor Heidenhain, in Germany, must not remain unknown to our readers any more than the new method of testing the efficacy of Homeopathy called *Neuralanalysis*, invented by Professor G. Jaeger, a distinguished zoologist and physiologist of Stuttgart.

But are any of these sciences and facts strictly new? We think not. Mesmerism, as well as Dr. Charcot’s *Metaloscopia* and *Xiloscopia* were known to the ancients; but later on, with the first dawn of *our* civilization and enlightenment, were rejected by

the wiseacres of those days as something too mystical and impossible.<sup>1</sup> As to Homeopathy, the possible existence of the law of *similia similibus curantur*<sup>2</sup> had already occurred in the earliest days of medicine. Hippocrates speaks of it, and later on Paracelsus, Haller, and even Stahl with several other renowned chemists of his time more than hinted at it, since some of them have absolutely taught it, and cured several patients by its means. As alchemy has become chemistry, so mesmerism and homeopathy with all the rest will ultimately become the legitimate branches of orthodox medicine. The experiments of Dr. Charcot with hysterical patients have almost revolutionized the world of medicine. Hypnotism is a phenomenon that is exercising all the thinking minds of the day, and is expected by many distinguished physicians — now that the keynote has been so loudly struck by that distinguished Parisian physician — to become in the near future a *science* of the greatest importance for humanity. The recent observations, in another direction, by Professor Heidenhain, in what he calls the “telephonic experiment,” is another proof of the gradual discovery and acceptance of means hitherto part and parcel of the occult sciences. The Professor shows that by placing one hand upon *the left side* of the brow, and the other upon the occiput of the subject, the latter when sufficiently hypnotized, will repeat words expressed by the experimenter. This is a very old experiment. When the High Lama of a College of *Chelas* in Tibet wants to force a pupil to *speak the truth*, he places his hand over the left eye of the culprit and the other on his head, and then — no power in the world is able to stop the words from pouring forth from the lad’s lips. He has to give it out. Does the Lama hypnotize or mesmerize him? Truly, if all such facts have been so long rejected, it is but on account of their close connection with occult sciences, with — MAGIC. Still accepted they are, however reluctantly. Dr. Riopel, of the United States, speaking of Hypnotism, and confessing the subject to be “so replete with interest, that metaphysicians have strong grounds for encourage-

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<sup>1</sup> To such “impossible” facts belong the phenomena of Hypnotism, which have created such a new stir in Germany, Russia and France, as well as the manifestations (belonging to the same kind) produced and observed by Dr. Charcot upon his hysterical patients. With the latter phenomena we must class those induced by the so-called *metaloscopy* and *xiloscopy*. Under the former are meant in medicine the now firmly established facts proving the characteristic influence on the animal organism of various metals and of the magnet, through their simple contact with the skin of the patient: each producing a different effect. As to *xiloscopy*, it is the name given to the same effects produced by various kinds of woods, especially by the quinine bark. *Metaloscopy* has already given birth to *Metalotherapy* — the science of using metals for curative means. The said “impossibilities” begin to be recognized as facts, though a Russian medical *Encyclopaedia* does call them “monstrous.” The same fate awaits other branches of the occult sciences of the ancients. Hitherto rejected, they now begin to be — although still reluctantly — accepted. Prof. Ziggler of Geneva has well-nigh proved the influence of metals, of quinine and of some parts of the living organisms (the ancient fascination of flowers) upon plants and trees. The plant named *Drosera*, the quasi-invisible hairs of which are endowed with partial motion, and which was regarded by Darwin as belonging to the insect-eating plants, is shown by Ziggler as affected even at a distance by animal magnetism as well as by certain metals, by means of various conductors. And a quarter century ago M. Adolphe Didier, the famous French somnambule and author, reports that an acquaintance of his met with much success in the experimental application of the mesmeric aura to flowers and fruits to promote their growth, colour, flavour, and perfume. Miss C.L. Hunt, who quotes this fact approvingly in her useful *Compendium of Mesmeric Information*, mentions (p. 180 *fn.*) that there

“ . . . are persons who are unable to wear or handle flowers, as they begin to wither and droop directly, as though the vitality of the plant were being appropriated by the wearer, instead of being sustained.”

To corroborate which foregoing observations by Western authorities, our Brahman readers need only to be reminded of the imperative injunction of their ancient *Sutras* that if anyone should even salute a Brahman when on his way to the river or tank for his morning *pūja* (devotions), he must at once throw away the flowers he is carrying according to the ritualistic custom, return home and procure fresh flowers. This simple explanation being that the magnetic current projected towards him by the saluter taints the floral aura and makes the blossoms no longer fit for the mystical psychic ceremony of which they are necessary accessories.

<sup>2</sup> [The homeopathic axiom expressing the law of similars or the doctrine that any drug capable of producing detrimental symptoms in healthy individuals will relieve similar symptoms occurring as an expression of disease.]

ment to continue their researches,” concludes nevertheless his article with the following extraordinary paradox:

A subject, first brought to light by Gall, who desired to establish the fact that the organ of speech had a definite position in the brain; then later by Marc Dax, and Bouillaud, and still later by Broca, and many other distinguished observers, has now come forward to brush away the mysteries of spiritualism and its pretended relations to psychology under the name of “hypnotism.”<sup>1</sup>

The “pretended relations” seems to be a felicitous remark and quite to the point. It is too late in the day to try to exclude transcendental psychology from the field of science, or to separate the phenomena of the spiritualists from it, however erroneous their *orthodox* explanations may appear. The prejudice so widely extant in society against the claims of spiritual phenomena, mesmerism, and homeopathy, is becoming too absurd to give it here a serious notice, for it has fallen into idiotic stubbornness. And the reason of it is simply this; a long established regard for an opinion becomes at last a habit; the latter is as quickly transformed into a conviction of its infallibility, and very soon it becomes for its advocate a dogma. Let no profane hand dare to touch it!

What reasonable grounds are there, for instance, for disputing the possible influence of the will impulses of one organism over the actions of another organism, without that will being expressed by either word or gestures?

Are not the phenomena of our will [asks a well-known Russian writer] and its constant action upon our own organism as great a puzzle as any to Science? And yet, who has ever thought of disputing or doubting the fact that the action of the will brings on certain changes in the economy of our physical organism, or, that the influence of the nature of certain substances upon that of others at a distance is not a scientifically recognized fact. Iron, in the process of getting magnetized, begins acting at a distance; wires once prepared to conduct electric currents begin to interact at a distance; all bodies heated to luminosity send forth visible and invisible rays to enormous distances, and so on. Why then should not WILL — an impulse and an energy — have as much potentiality as heat or iron? Changes in the state of our organism can thus be proved as scientifically to produce determined changes in another organism.

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Still better reasons may be given.

It is a well-known fact that force can be accumulated in a body and form a store, so to say, of what is termed *potential energy*; to wit, the heat and light given out by the process of combustion of wood, coals, *etc.*, represent simply the emission of energy brought down upon the earth by the solar rays and absorbed, stored up by the plant during the process of its growth and development. Gas of every kind represents a reservoir of energy, which manifests itself under the form of heat as soon as compressed, and especially during the transformation of the gas into a fluidic state. The so-called “Canton-phosphorus” (to

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<sup>1</sup> *Phrenol. Journal*

the practical application of which are due the luminous docks which shine in darkness) has the property of absorbing the light which it emits, later on, in darkness. Mesmerists assure us — and we do not see any valid reason why it should not be so — that in the same manner their will-impulses may be fixed upon any material object which will absorb and store it until forced by the same will to emit it back from itself.

But there are less intricate and purely scientific phenomena requiring no human organism to experiment upon; experiments which, finding themselves within an easy reach for verification, not only prove very forcibly the existence of the mysterious force claimed by the mesmerists and practically utilized in the production of every occult phenomenon by the adepts, but threaten to upset absolutely and forever to the last stone of that Chinese wall of blank negation erected by physical science against the invasion of the so-called occult phenomena. We mean Messrs. Crookes' and Guitford's experiments with radiant matter, and that very ingenious instrument invented by the former and called the electrical radiometer. Anyone who knows anything of them can see how far they carry out and corroborate our assertions. Mr. Crookes, in his observations on molecular activity in connection with the radiometer (the molecules being set in motion by means of radiations producing heat effects) makes the following discovery. The electric rays — produced by an induction spark, the electricity radiating from the negative pole and passing into a space containing extremely rarefied gas — when focused upon a strip of platinum, melted it! The energy of the current is thus transferred to a substance through what may be fairly called a *vacuum*, and produces therein an intense elevation of temperature, a heat capable of melting metals. What is the medium that transmits the energy, since there is nought in space but a little gas in its most attenuated condition? And how much, or rather how little, we see, is needed of that substance to make of it a medium and cause it to resist the pressure of such an enormous quantity of force or energy? But here we see quite the reverse of that which we should expect to find. Here, the transmission of force becomes only then possible when the quantity of the substance is reduced to its *minimum*. Mechanics teach us that the quantity of energy is determined by the weight of the mass of the substance in motion, and the velocity of its motion; and with the decrease of the mass the velocity of the motion must be considerably increased if we want to obtain the same effect. From this point of view, and before this infinitesimally small quantity of attenuated gas, we are forced — to be enabled to explain the immensity of the effect — to realize a velocity of motion which transcends all the limits of our conception. In Mr. Crookes' miniature apparatus we find ourselves face to face with an infinitude as inconceivable to us as that which must exist in the very depths of the Universe. Here we have the infinitude of velocity; there — the infinitude of space. Are these two transcendent things spirit? No; they are both MATTER; only — at the opposite poles of the same Eternity.



## Part 2

### On Homeopathy and Mesmerism

From *The Theosophist*, Vol. IV, No. 7, April 1883, pp. 169-70.

**Y**EARS SINCE HOMEOPATHS began telling us that extremely small doses of substance are required to produce extremely important effects upon animal organisms. They went so far as to maintain that, with the *decrease* of the dose was obtained a proportionate *increase* of the effect. The professors of this new heresy were regarded as charlatans and deluded fools, and treated henceforward as quacks.

Nevertheless, the instance in hand furnished by Mr. Crookes' experiments with radiant matter and the electrical radiometer and now admittedly a fact in modern physical science, might well be claimed by Homeopathy as a firm basis to stand upon. Setting aside such a complicated machinery as the human organism, the case can be experimentally verified upon any inorganic substance. No impartial thinker, moreover, would be prepared, we think, to deny *a priori* the effect of homeopathic medicines. The trite argument of the negator — "I do not understand it, therefore it cannot be" — is worn out threadbare.

As though the infinite possibilities of nature can be exhausted by the shallow standard of our pigmy understanding! [exclaims the author of an article upon Jaeger's *Neuralanalysis* and Homeopathy]. Let us leave aside [he adds] our conceited pretensions to understand *every* phenomenon, and bear in mind that, if verification of a fact by observation and experiment is the first requisite for its correct comprehension, the next and most important requisite is the close study by the help of those same experiments and observation of the various conditions under which that fact is made to appear. It is only when we have strictly complied with this method that we can hope — and even that not always — to be brought to correctly define and comprehend it.

We will now collate together some of the best arguments brought forward by this and other impartial writers to the defence of Homeopathy and Mesmerism.

The foremost and most important factor for the discovery and clear understanding of some given secret of nature is — analogy. Adaptation of a new phenomenon to phenomena already discovered and investigated is the first step towards its comprehension. And the analogies we find around us tend all to confirm instead of contradicting the possibility of the great virtue claimed for the infinitesimals in medicinal doses. Indeed, observation shows in the great majority of cases that the more a substance is reduced to its simplest form, the less it is complicated, the more it is capable of storing energy; *i.e.*, that it is precisely under such a condition that it becomes the most active. The formation of water from ice, steam out of water, is followed by absorption of heat; steam appears here, so to say, as the reservoir of energy; and the latter when spent during the conversion of steam back into water shows itself capable of performing mechanical work, such as the moving of heavy masses, *etc.* A chemist would tell us that, in the majority of cases, to impart energy to substance he has to spend



force. Thus, for instance, in order to pass from steam to its compound parts, hydrogen and oxygen, far more expenditure of energy is required than in the process of the transformation of water into aqueous vapour, hydrogen and oxygen appearing relatively as tremendous reservoirs of forces. This store asserts itself in the conversion of that vapour into water, during the combination of hydrogen with oxygen, either under the appearance of heat-effect, or under the shape of an explosion, *i.e.*, the motion of masses. When we turn to substances chemically homogeneous, or elementary substances so called, we find again that the greatest chemical activity belongs to those elements that are the lightest in weight in order to obtain some definite chemical action. Thus, if, in the majority of cases it is observed that the simpler and the more attenuated a substance has become, the more there is an increase of forces in it — then why, we ask, should we deny the same property or phenomenon there, where the masses of substances owing to their minuteness escape our direct observation and exact measurement? Shall we forget that the *great* and the *little* — are relative conceptions, and that infinitude is equally existent and equally unattainable by our senses whether it is on a large or on a small scale?

And now, leaving aside all such arguments that can be tested only by scientific rule, we will turn to far simpler evidence, the one generally rejected, just because it is so common and within the reach of everyone's observation. Every person knows how little is required of certain odours to be smelled by all. Thus, for instance, a piece of musk will fill a great space with its odour, there being present in the atmosphere particles of that odoriferous substance everywhere, without a decrease either in the bulk or the weight of the piece being in the least appreciable. We have no means, at any rate, of verifying such a decrease — if there be one. We also all know what strong effects may be produced upon certain sensitive organisms by certain smells, and that these may induce convulsions, swoons, and even a condition of dangerous coma. And if the possibility of the influence of infinitesimally small quantities of certain odoriferous substances upon the olfactory nerve need not be questioned at this stage of scientific enquiry, what ground have we in denying the possibility of like influence upon our nerves in general? In the one case the impression received by the nerves is followed by a full consciousness of that fact; in the other it eludes the testimony of our senses; yet the fact of the presence of such an influence may remain the same in both cases, and though beyond the reach of immediate consciousness, it may be admitted to assert itself in certain changes taking place in our organic functions without attributing the latter — as our allopaths will often do — to chance or the effect of blind faith. Everyone can feel, and become cognizant of, the beatings of one's heart, while the vermicular motion of the intestines is felt by no one; but who will deny for that, that the one motion has as great an importance and as objective an existence as the other in the life of an organic being? Thus, the influence of homeopathic doses becomes perfectly admissible and even probable; and the cure of diseases by occult agency — mesmeric passes and the minutest doses of mineral as well as vegetable substances — ought to be accepted as an ascertained and well verified fact for all but the conservative and incurable apostles of negation.

To an impartial observer it becomes evident that both sides have to be taken to task. The homoeopaths, for their entire rejection of the allopathic methods; and their opponents, for shutting their eyes before facts, and their unpardonable *a priori* nega-

tion of what they are pleased to regard without verification as a quackery and an imposition. It becomes self-evident that the two methods will find themselves happily combined at no distant future in the practice of medicine. Physical and chemical processes take place in every living organism, but the latter are governed by the action of the nervous system to which the first place in importance has to be conceded. It is but when a substance is introduced into the organism in a greater or lesser considerable quantity that its direct, gross, mechanical, or chemical effect will be made apparent; and then it acts rapidly and in an immediate way, taking a part in that or in another process, acting in it as it would act in a laboratory vessel, or as a knife might act in the hand of a surgeon. In most cases its influence upon the nervous system acts only in an indirect way. Owing to the smallest imprudence an allopathic dose, while it restores to order one process, will produce disorder in the functions of another. But there is another means of influencing the course of vital processes: indirectly, nevertheless, very powerfully. This means consists in the immediate, exceptional action upon that which governs supremely those processes — namely — on our nerves. This is the method of homeopathy. The allopaths themselves have often to use means based upon this homeopathic method, and then, they confess to having had to act upon a purely empirical principle. As a case in hand we may cite the following: the action of quinine in intermittent malaria fever will not be homeopathic: enough of that substance must be given to poison, so to say, the blood to a degree that would kill the malaria micro-organisms, that induce, through their presence, the fever symptoms. But, in every case where quinine has to be administered as a tonic, then its invigorating action has to be attributed rather to the homeopathic than allopathic influence. Physicians will then prescribe a dose which will be virtually homeopathic, though they will not be ready to admit it. Thus, incomplete and perhaps faulty in its details as the instance given may be found upon strict analysis, it is yet believed as proving that the incurable, *a priori* denial of the effects of homeopathic treatment, is less due to the uncompromising rules based upon scientific data, than to a loose examination of those data by means of their analogies.

The recent and interesting experiments by the well-known zoologist and physiologist of Stuttgart, already mentioned — Professor G. Jaeger — give a brilliant and triumphant corroboration to the righteous claims of homeopathy. In the author's opinion the results obtained by him being amenable to a correct interpretation in figures, "*place homeopathy at once as a branch of medical science, based upon exact physiological data and inferior in nothing to the allopathic methods.*" Professor Jaeger calls his own method *Neuralanalysis*. We will treat of it, as embodied by him in a pamphlet bearing the epigraph: "figures prove" (*Zahlen beweisen*), in our next number, making extracts from the best reviews of it by scientific men.

## Part 3

From *The Theosophist*, Vol. IV, No. 8, May 1883, pp. 193-94.

**T**HE FOLLOWING IS A SUMMARY OF VARIOUS REVIEWS upon Dr. Jaeger's *Neuralanalysis* in connection with homeopathy.

The *Neuralanalysis* is based upon the application of the apparatus known among the physicians as the *chronoscope*, whose object is to record the most infinitesimal intervals of time:<sup>1</sup> one needle making from five to ten revolutions in a second. Five revolutions are sufficient for a neuralanalytical experiment. This needle can be instantaneously set in motion by the interception of the galvanic current, and as instantaneously stopped by allowing its flow again. So great is the sensitiveness of the instrument, that a chronoscope with ten revolutions in a second, is capable of calculating and recording the time needed for a pistol ball in motion to cross the space of one foot. The means used for this experiment is as follows: during its transit, the ball, acting upon the wire, shuts out the current, and a foot further on, it breaks another wire, and thus stops the current altogether. During this incredibly short space of time, the needle is already set in motion and has crossed a certain portion of its circuit.

The Neuralanalysis consists in the measurement of that for which astronomers have a term of their own, but Dr. Jaeger calls *Nervenzeit* — “*nerve-time*.”

If, while observing the moment of the appearance of some signal, one had to record that moment by some given sign — say by the bending of his finger — then between the appearance of the said signal and the bending of the finger, a certain lapse of time will be needed in order that the impression upon the nervous tissue of the eye should reach through the optic nerve the brain, and thence expand itself along the motor nerves to the muscles of the finger. It is this duration, or lapse, that is called *nerve-time*. To calculate it by means of the chronoscope, one has to carefully observe the position of the needle; and, never losing sight of it, to intercept by a slow wave of the hand the galvanic current, and thus set the needle in motion. As soon as the latter motion is observed, the experimenter rapidly stops it by liberating the current, and takes note again of the needle's position. The difference between the two positions will give the exact “*nerve-time*” in so many parts of a second. The duration of “*nerve-time*” depends firstly on the condition in which the conductivity of the nervous and muscular apparatus is at the time: this condition being thoroughly independent of our will. And secondly, it depends on the degree of intensity of the attention and the force of the will-impulse in the experimenter; the more energetic is the will or desire, the greater the attention, the shorter will be the “*nerve-time*.” To make the second condition easier — an exercise is necessary by means of which is developed a habit — known in physiology as the law of co-ordinative motions or of nearly simultaneous action. Then one single will-impulse will be sufficient to produce two

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<sup>1</sup> Such as the duration of luminous impressions upon the retina of the eye — for instance.

motions — the act of intercepting and that of releasing the galvanic current. Of these two motions which appear both at first as deliberate, the second will become through exercise and habit involuntary, so to say instinctive, and follow the first independently. Once the habit acquired, the “nerve-time” when calculated by the chronoscope becomes very little dependent upon will, and indicates chiefly the rapidity with which the excitement is spread along the nerves and muscles.

Hitherto, only the mean quantity of “nerve-time” was generally paid attention to; but Dr. Jaeger remarked that it was liable to considerable fluctuations, one rapidly succeeding the other. For instance, taking one hundred chronoscopical measurements of “nerve-time” one after the other and at short intervals, say, every ten or twenty seconds, we get rows of figures, considerably differing from each other, the changes in the quantity of those figures, *i.e.*, the fluctuations in the duration of nerve-time being very characteristic. They can be represented, in accordance with a certain graphic method, by means of a curved line. The latter as showing the results of all the measurements taken one after the other, Dr. Jaeger has called the “*detail-curve*” (*Detail-kurve*). Besides this, he constructs another curved line, which shows those figures that will remain when, putting together all the subsequent observations ten by ten, the mean result is obtained out of every decade. The latter result of ten observations he calls *Decandenziffer* or the “decade figure.” Thus the *Neuralanalytical* curves give us a general view in figures of the state of our nervous apparatus, in relation to the conductivity of their excitation and the characteristic fluctuations of that conductivity. Studying by this means the condition of the nervous system, one can easily judge in what way, and to what extent, it is acted upon by certain definite external and internal influences, and, as their action under similar conditions is invariable, then *vice versa*, very exact conclusions can be arrived at by the characteristic state of the conductivity of the nervous system as to the nature of those influences that acted upon the nerves during the said chronoscopic measurement.

The experiments of Jaeger and his pupils show that the aspect of the neuralanalytical curves — which he calls “psychogrammes” — changes, on the one hand, at every influence acting upon the organism from without, and on the other — at everything that affects it from within, as, for instance, pleasure, anger, fear, hunger, or thirst, *etc., etc.* Moreover, peculiar characteristic curves are formed, in correspondence to every such influence or effect. On the other hand one and the same person, experimented upon under the same conditions, gets each time, under the influence of some definite substance introduced into his organism, an identical psychogramme. The most interesting and important feature of the *neuralanalysis* is found in the fact, that the choice of the means resorted to for the introduction of various substances into the human organism, has no importance here whatever: any volatile substance, taken within, will give the same results when simply inhaled, it being quite immaterial whether it has or has not any odour.

In order that the experiments should always yield results for purposes of comparison, it is strictly necessary to pay a great attention to the food and drink of the person experimented upon, to both his mental and physical states, as also to the purity of the atmosphere in the room where the experiments take place. The “curves” will show immediately whether the patient is in the same *neuralanalytical* disposition



with regard to all the conditions as he was during the preceding experiments. No other instrument the world over is better calculated to show the extreme sensitiveness of human organism. Thus, for instance, as shown by Dr. Jaeger, it is sufficient of one drop of spirit of wine spilled on a varnished table, that the smell of varnish filling the room should alter considerably the psychogrammic figures and impede the progress of the experiment.

There are several kinds of psychogrammes, the olfactory one being called by him the *osmogramme* from the Greek words *osmosis*, a form of molecular attraction. The *osmogrammes* are the most valuable as giving by far the greater and clearer results. “Even the metals” — says Jaeger — “show themselves sufficiently volatile to yield most suggestive *osmogrammes*.” Besides, whereas it is impossible to stop at will the action of substances introduced into the stomach, the action of a substance inhaled may be easily stopped. The quantity of substance needed for an *osmogramme* is the most trifling; and leaving aside the enormous homeopathical dilutions, the quantity has no real importance. Thus, for instance, when alcohol has to be inhaled, it makes no difference in the result obtained whether its surface covers an area of one square inch or that of a large plate.

In the next number it is proposed to show the enormous light that Jaeger’s discoveries of this new application of the chronoscope throws upon homeopathy in general, and the doubted efficacy of the infinitesimal doses in countless dilutions — especially.<sup>1</sup>



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<sup>1</sup> [H.P. Blavatsky appears never to have carried out this intention. — *Boris de Zirkoff*.]