## PROCEEDINGS

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## FOR AND AGAINST SURVIVAL.

THE DIFFICULTY OF SURVIVAL FROM THE SCIENTIFIC POINT OF VIEW.

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#### I.

In my numerous writings I have resolutely adhered to the position of not admitting as demonstrated the survival of consciousness. Nevertheless, it may be that my negative attitude is somewhat more strongly represented in my writings than in my intimate thought. There are facts so unexpected, so perturbing, continually cropping up as we continue to study the subject, presenting themselves with such disconcerting rapidity and complexity, that it would be inexcusable for me to deny, without hesitation, all possibility of the survival of consciousness.

It therefore appears to me wise to make a reserve in my negation. If it is true—as I have often maintained that the most reasonable hypothesis is the unknown hypothesis X, which it will be for the future to develop, it is very possible that this hypothesis X need not be

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antagonistic to the spiritistic hypothesis. In fact, I do not wish to expose myself to the chance of seeing my negations suddenly reversed by new experiments; so, although I do not expect this to happen, my attitude of prudence may be pardoned. At the same time, in spite of my prudence, I am forced to regard the spiritistic hypothesis, not only as undemonstrated, but, still more, as being in formal opposition to a great number of facts.

Let it be well understood that I am not at all concerned to know whether survival is agreeable or disagreeable, nor whether I am in accord or disaccord with any particular brand of religious opinion: it is not things of that kind which occupy my mind, but only a question of fact—the truth.

### П.

To what then is the spiritistic hypothesis in opposition? First of all, very briefly, there is Physiology, that is to say a very precise science, rich in demonstrations, which have established by innumerable proofs a narrow rigorous parallelism between intellectual functions—otherwise called memory—and the brain.

Moreover, in the immense animal kingdom there is no gap, no hiatus. The monkey and the dog have a memory analogous to that of man: the hen and the tortoise can be compared with the monkey and the dog: then the fish and the octopus: then all the other animals, down to the worms. Consciousness, mobility, sensitiveness, are functions of the nervous system; so that it is necessary to suppose, not only the survival of the human consciousness, but also the survival of all animal memories. That is a grave consideration, and I am not resigned to it.

But the spiritists do not admit what my illustrious friend Oliver Lodge humorously calls "the fetish of the brain." For myself, without being able to give a firm demonstration (for one cannot prove a negative), I cannot believe that memory can exist without the anatomical and physiological integrity of the brain. Whenever there

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is no more oxygen, whenever the temperature is either too low or too high, when there are a few drops of atropine or morphine or chloroform introduced into the blood, whenever the course of cerebral irrigation is stopped—memory alters and disappears. Spiritists cannot deny these facts. They say merely that the brain is only an instrument, which is unable to respond unless it is intact. And it is by reasoning of another order that they try to prove that the instrument is not necessary.

But that is another grave consideration. It is as if I were to say that in an electric lamp the passage of the current and the integrity of the mechanism of the lamp are not necessary for the production of its light.

### III.

But let us proceed and come to the direct proofs. Following the classification that I have formulated, they can be related to *subjective* metapsychics or to *objective* metapsychics.

Now in subjective metapsychics we have a great number of facts proving that human intelligence has means of acquiring information other than through normal sensory channels; and that it acquires this information under conditions which exclude the attribution of this supersensorial knowledge (or cryptaesthesia) to the presence of an individuality which has survived the death of the brain.

When Ossowiecki reads the word "toi" that I have written on a scrap of paper held all crumpled up in my hand, or when he indicates a verse of Rostand that I don't know and that Mme de Noailles had enclosed in a carefully sealed letter, there is no need to suppose the intervention of the soul of a deceased person. There is perception or knowledge of reality : that is all.

And this perception or knowledge is profoundly mysterious. We might say that it has, so to speak, no limit known to us. We are not leaving the scientific domain if we say that cryptaesthesia can reveal to us fragments of the real---fragments which seem to have no connexion with space and time. Since the facts are so, since cryptaesthesia in these cases is apparently not connected with the agency of any discarnate person, I do not at all see why, in spite of appearances—sometimes startling and disturbing—one should feel authorised to suppose that the individuality of some dead person has retained his consciousness, his memory, and is there in order to make revelations to us. It is a hypothesis which is not at all necessary, given the mysterious and vast extent of cryptaesthesic power.

Consequently, all the revelations of the discarnate about their old life can be logically attributed to this power of cryptaesthesia.

Nevertheless, I do not overlook two facts: (1) That genuine mediums have an invincible tendency to attribute their answers to a spirit of the dead : all their phrases are saturated with the spiritistic hypothesis; and it was so even in the beginning of their career, when they had (2) We practically no knowledge of spiritistic literature. must admit-what is not very satisfactory-that mediums have a way of selecting minute details in the life and habits of a definite discarnate person in order to utilise or adapt them in their answers. Sir Oliver Lodge and E. Bozzano have insisted on the difficulty there is in understanding this selection in the messages. So much so that in certain very rare cases the hypothesis of survival is much less far-fetched than the hypothesis of selective cryptaesthesia.

But these reasons, which I frankly bring forward in all their force, do not hinder me from concluding that by subjective metapsychics one cannot render likely the theory of survival.

One must here remark that we have not taken into account the wholesale nonsense furnished by automatic writing in thousands of experiments. Even for the most hardened spiritist there is not one communication in a thousand which is not ridiculous: it behoves one therefore to be very cautious about the thousandth observation, even when it has rather striking features. Let us remain a moment longer in subjective metapsychics and consider the most extraordinary facts in the whole of known science, that is to say Premonitions. It must be understood that I by no means deny the reality of certain premonitions; I have quoted remarkable examples of them which have happened to me personally: and in the annals of our science there are astonishing examples. But premonition has nothing to do with survival. It remains an absolutely incomprehensible phenomenon for our puny intelligence. One cannot see how this phenomenon, which shocks so brutally our sense of free will, can ever be understood.

That matters little. It is an undeniable fact; and it proves to us the sheer impossibility, as yet, of finding any explanation for metapsychic phenomena. But I do not propose an explanation or a theory. When I speak of cryptaesthesia I indicate a fact—the perception of reality by extra-sensorial channels. I do not seek to go beyond that, and as yet science has no right to go beyond that.

## V.

What strongly confirms this opinion, about our scientific powerlessness in coming to a conclusion, are the experiences of Objective metapsychics; for they prove to us that we are still plunged in thick darkness. When an ectoplasmic formation comes out of the body of Eusapia, of D. D. Home, of Miss Goligher, of Eva, or of Willy, we can only properly conclude that from the bodies of mediums can be disengaged sometimes forces having objective reality, which can be moulded, and photographed, and can assume the most diverse appear-What connexion can there be between these ances. materialisations of human forms and the survival of memory? I cannot see any.

Moreover, there are not only materialisations of human forms, but also materialisations of veils, head-dresses, clothes, animals, various objects; to such an extent that we cannot doubt that the power of materialisation or of producing ectoplasm is not limited to human personalities.

I know well that in certain cases, in particular the case of Mr. Cushman (American Journal S.P.R., April, 1922, pp. 132 to 147), the photograph of the phantom represents very exactly the face of the young deceased daughter of Mr. Cushman. But even in this remarkable case, if there is not some error or trickery, it is impossible to suppose that the body of this young girl had not been decomposed by the decay of the tomb. We cannot really suppose that the forms of living people perpetuate themselves after death. It must be the materialisation of something which has existed and which no longer exists.

To admit that is to enter a world absolutely unknown. It is possible that one day it may be admitted; but to-day we stand plunged into an abyss of deeper and deeper mysteries. It would mean, not only the survival of memory, but the survival of the chemical elements which constitute our body, and which retain somehow their molecular arrangement, in spite of incineration and putrefaction.

Thus objective metapsychics gives no support whatever to the theory of survival. It teaches us only this—that, so far, we have understood nothing, absolutely nothing, of all these phenomena.

#### VI.

And now to conclude. Unknown truths, immense unforeseen horizons, open before us. Let us not hasten to build up a fragile theory. The further we advance the more the shadows thicken. The old Egyptians had already supposed that a human being survived the disintegration of its human tatters. They put into the sarcophagus of their dead ones, cakes, toys, and jewels. The anthropomorphism of the spiritist is of the same order. Truth, under the profound veils which cover it, must be far more noble than this antiquated idea—the prolongation of our miserable individual intellectuality. I deny nothing. I claim only that the theory of survival has some extremely feeble evidence in its favour, but against it a series of innumerable inductions. In view of the rapid progress of the sciences, and the profound change in all our conceptions, it must be held to constitute only a revival of very ancient superstitions. The evolution of science will lead us to more splendid truths.

## FOR AND AGAINST SURVIVAL.

## THE POSSIBILITY OF SURVIVAL FROM THE SCIENTIFIC POINT OF VIEW.

#### BY SIR OLIVER LODGE.

My good and eminent friend Professor Richet has made an admirable statement or synoptic summary of the enlightened materialistic position in regard to the phenomena studied in Psychic Research, and recorded in his great book, *Traité de Metapsychique*. His statement would not be accepted by the great majority of his colleagues, who being unacquainted with the facts are therefore comparatively benighted; but the interesting thing is that though Professor Richet knows facts which in some of their aspects conflict with materialism, he yet is able to remain a materialist.

No offence is intended by this term : it is a definite philosophical position. It is well to have this position competently sustained, so far as the phenomena specially under consideration are concerned, and so far as it has a bearing on our acceptance or rejection of the possibility or reasonableness of human survival. If Professor Richet's stronghold can be stormed, it is unlikely that any successor will be able to entrench himself in a fortress of equal solidity.

Richet shows himself remarkably open minded, for he says, "I deny nothing"; he also shows himself a thorough agnostic, for he says that we are still plunged in thick darkness and have no clue to these mysteries. But here is just where I differ from him. I am less open-minded, for I want to deny a good deal. I am less agnostic, for I have a working hypothesis, which I desire to verify or else explode.

Now although Professor Richet is acquainted with the facts, I venture to say that he is not yet acquainted with my version of the spiritistic point of view; which I might call "our theory" except that I have no right to involve other people in a disputed and unorthodox position. Why should he be acquainted with it? If I have indicated my theoretical views at all, it has always been in a faint and apologetic manner, because I want to confront them always with the facts, and because I wish to emphasise the facts themselves rather than any opinion or theories about them. But with my friend Professor Richet I must take a different line. There is no need to weary him by insistence on the facts,-though about a few of the subjective kind I have a more favourable opinion than he has; just as on the objective side he has had advantages of investigation denied to me,--what is troubling him throughout is the lack of theory. He bravely faces the lacuna. He does not seek to devise opposition theories. He is content to say that the facts are mysterious and inexplicable and rather crazy, when interpreted as orthodox science feels bound to interpret them.

And with that limitation—the limitation which orthodox science at present imposes on itself—crazy and incredible is what they are. Still more crazy must our theories about them seem. But new facts often require new theory for their interpretation. There are things in the universe which biological science has not yet taken into account. If or when it does proceed to take another entity of physical existence into account, it will find its difficulties gradually disappearing. And Richet himself will feel sooner or later that he can have a clue to his facts, a link on which to thread them, a point of view which will enable him to interpret them in a more hospitable and less dumbfounded manner. From his present point of view no wonder they appear strange, troubling, mysterious and incredible. The marvel is that his loyalty to truth and to fact has enabled him to accept them at all, as part of the reality of the Universe. That is just what they are: but then some other things are likewise part of reality. And when we accept and incorporate the Ether into our scheme—a thing at present totally ignored by biological science, and indeed ignored by all science except one-half of the science of Physics—the horizon will begin to brighten, the mist roll away, and a star, if not a sun, will begin to illuminate the darkness.

I said that I wanted to deny as well as to assert. Professor Richet refrains from denying, but some of his assertions are rash. He denies with hesitation: he asserts with vigour—a procedure in general quite admirable; but on this occasion I am going rashly to take an opposite course. I am going to deny with vigour and assert with hesitation. Only, for the sake of lucidity and brevity, I may find it best to throw my assertions into a positive and dogmatic form, which ill suits the subject were it not for this explanation. And I must trust my critics clearly to apprehend that when I turn from denials to assertions I am only formulating a working hypothesis, only making an effort to frame a rational conception of the manner and method of human survival.

The evidence for survival ought to stand on its own merits, without being hampered by effete superstitions. I wish to deny and repudiate some of those superstitions in a forcible manner; and in this I know that I am in agreement with all the more reasonable spiritists. Professor Richet, and perhaps some others in the physiological camp, seem to want to carry these superstitions over from "the dark ages" into the era of Science; but this must not be allowed. The subject is difficult enough without these unnecessary and impossible accretions.

My first denial then is of anything like the resuscitation

of a corpse. Humanity for many centuries has been accustomed to think of people being put into a grave, there to bide their time for some future event : and those who hold or try to hold that view would be indisposed to accept any appearances of the departed unless they could find their empty tomb. Now we maintain that the idea of a resuscitated body wandering about is absurd; although the history of folk-lore shows that beliefs of this kind were held: and a stake was sometimes driven through the body of a suicide in order to keep it quiet. The reason for this preposterous practice was no doubt similar to that which Professor Richet now expresses, viz. that the personality is so entirely associated with the material body that any visible and tangible appearance of that personality must necessarily be taken to mean that the corpse was used for the purpose. And during the Middle Ages some even of the Fathers of the Church apparently could not dissociate the idea of ultimate resurrection from the notion of an abandoned grave, a collection of the body's original particles, a composing of them together, and a revivification. But the facts give no justification for such an idea. And those who hold the spiritistic view are as willing as any Physiologist is to admit all the facts about disintegration, decomposition, incineration, and the rest. The materialistic survivals of folk-lore must be utterly discarded.

If it be found that an apparition or phantom has the features and bodily marks of the discarded instrument of manifestation, then those facts will have to be accepted, and an explanation sought elsewhere. No explanation based on the revivification of the corpse can be accepted for a moment. It is true that it seems like the obvious and childish explanation; but in the light of modern knowledge it ought to be discarded as extinct. When we say that the facts uphold the doctrine of survival, we do not mean that !

The ancient Egyptian practices, and their idea of death must have been troublesome and painful. The notion that the surviving soul or Ka required meats and furniture and appliances, which were therefore put into the tomb for its sustenance and convenience, belongs to the childish age of humanity, and must have given great anxiety to survivors, especially poor survivors, lest they had forgotten something necessary, or lest they had not made adequate provision for their beloved's future existence.

Mediaeval ecclesiastical beliefs were in many respects better than that. It must have been painful to put the loved person into the earth and leave him in the cold and dark for unknown centuries; but at any rate they had faith that the bodily part would be at peace until summoned again and reconstituted by Divine Power. They had anxieties and troubles enough however about the soul, which they were told might be in torment unless they invoked the supernatural power of the priesthood. This fear must have given so much pain that really those beliefs were hardly superior to the more ancient beliefs of the Egyptians. It is known, however, that the phrase "resurrection of the body" is capable of adaptation and reasonable interpretation by believers; as explained *e.g.* in *Man and the Universe*, and in Part III of *Raymond*.

But with Ecclesiastical practices, science has nothing to do. It ought to regard the facts from a totally new and different aspect. We ought to maintain, and we do maintain, that the material body has served its turn and is utterly discarded and done with, that its particles can be used again for other forms of life, and that no sort of identity or personality remains associated with them.

As to what becomes of the personality, and what instrument now serves its turn, that is a matter for investigation; that is what we have to learn. No question of priestcraft should be associated with it: it is a straightforward scientific enquiry. It may be that we do not know. But on the other hand it may be that we can frame a working hypothesis. Such a hypothesis is growing in my mind: and the beginnings of it were in the mind of St. Paul, of Clement of Alexandria, of Origen, and other Greek Fathers of the Church. Very likely their ideas were condemned as heretical at the time; but that does not prove them untrue.

To avoid misunderstanding, I should like to say here

that in all I have said I am referring to ordinary bodies and ordinary people. If there is a case for an exceptional Body, and for a different treatment in one particular instance, so that one Tomb was really empty, that is not a matter to which I wish to refer here. I may have more to say about that in a proper time and place.

Meanwhile I am dealing with the apparitions and the fate of ordinary people. The facts suggest, what is rather the point at issue, that they do sometimes appear; but the fact is certain that their material bodies remain in the tomb, or wherever else they were deposited by survivors. If this is fully admitted and thoroughly accepted, a crude materialistic explanation of the facts is put out of court, and the ground is to that extent cleared. The enquiry may now proceed freed from this encumbrance of folk-lore. There is no survival of the material body!

Nevertheless, those of us who consider that we are really in touch, sometimes, with surviving personalities, are told by those personalities that they have "bodies" just as real and substantial as they used to have, that they find themselves signally unchanged, that they preserve the same appearance, so that they can be recognised; that it is by means of these bodies or instruments of manifestation that they are aware of and communicate with each other, and that by aid of them they occasionally communicate with us. How can these statements be reconciled with what has just been said? Well, that is where comes in my working hypothesis—a hypothesis not accepted by me alone but by many others who are feeling their way in the same direction, a hypothesis which we can read into many of St. Paul's words, and which we therefore think that that inspired genius caught some glimpse of, though he could not have formulated it in modern terms.

If I am tempted to call it "my hypothesis," it is because—apart altogether from psychical conditions—I have made a life-long study of the Ether of Space; so that to me it seems a more familiar and substantial and practical entity than it is likely to be to people who have not made that study, and to whom it seems something indefinite, vague, and imaginary.

Among scientific men the Ether has only been studied by Physicists, and not by all of them. It has been ignored by Chemists, qua Chemists, and has probably never entered the thoughts of Physiologists, or Biologists of any kind, at all. And yet if it is a reality in the Universe it may have chemical and biological functions to perform, as well as its well known functions in the science of Physics. We know it familiarly in the phenomena of Light, of Electricity, of Magnetism. We are beginning to associate it also, rather definitely, with Elasticity, Cohesion, and Gravitation. And we are gradually learning that the greater part of the energy in the Universe, and certainly all potential energy, belongs to it, and not to matter at all. Atomic matter is one thing: the Ether is another. They may be related; in fact they are related. The link between them is electricity. But if it is possible ever to unify them, and to regard them as different manifestations of one thing, there is no doubt which is the more fundamental of the two. The Ether is the fundamental thing. Matter is a derived and secondary thing. And the electric charges which constitute matter are probably composed of modifications of the Ether.

This really is orthodox Physics, though it is not yet so substantiated that all Physicists must necessarily agree with it. There may be legitimate differences of opinion, but it is a recognised and reasoned scientific view. It is well founded, it is deduced from the facts, and is entirely independent of any psychic considerations.

Suppose then, for purposes of argument, that we allow the Ether in the physical universe to have the functions which most physicists attribute to it : then it becomes a definite question whether it ought not to be taken into account in philosophic discussion, and in the long run in biological theory too.

To explain all that I have said on the side of physics would need something like a treatise. In this discussion I must be brief, and must appear to be more hypothetical than

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I am. Still when we come to Biology we are bound to be hypothetical. And the working hypothesis that I promulgate must be held lightly, until the facts, studied long and carefully, are found to substantiate it, and constitute it a reasonable clue to phenomena which, though real, seem otherwise inexplicable.

To Professor Richet the facts seem quite inexplicable. He feels that he is working in the dark, and that "the only safe statement is to say that we really know nothing, absolutely nothing, about the Universe." From this point of view, my agnosticism is not so deep as his. T feel that we have a clue, and that it is only by following it up that we shall find out whether it is a trustworthy clue or not. Any clue is better than none. Disconnected facts, not joined by any thread of theory, are intractable and confusing things. They can hardly be said to belong to Science, which means a system of organised knowledge. And it is because they lack the clue, that Biologists in general feel so hostile, and are conscious of such repugnance, to the facts themselves. To the honour of Professor Richet, in spite of his repugnance, he is ready to accept the facts. But it seems to me that he raises unnecessary difficulties about them by his insistence on matter alone. He will never understand them in terms of "matter" alone. Strictly speaking, we cannot understand anything fully and completely in terms of matter alone. By concentrating on matter we eliminate from our thoughts the greater part of the Universe. The Universe contains many things besides matter. It contains magnetism and electricity and light and ether; it also contains life and thought and mind and consciousness and memory and personality and character. None of these things are material; and yet, strangely enough, some of them have come into association with matter through the curious biological process of Incarnation. For a time intelligences do inhabit material bodies which, by barely known processes, they have unconsciously constructed. It is evident that there exists a formative principle, which is able to deal with the atoms of matter, or rather with the more complex molecules into which the atoms have already grouped themselves: and thus, by aid of the energy which these molecules receive from the sun, non-material entities are able to manifest themselves familiarly in association with matter. So vivid is the connexion that we have learnt to identify them with their material modes of manifestation, and to imagine that they cannot otherwise exist.

We do not know why they require a habitation or instrument belonging to the physical universe; but we may assume that for some unknown reason they do. We know that they make use of matter, though we know not how or why. But the facts now show that association with matter is not essential to their existence. We may assume that they can make use of something else, if the facts point that way. My working hypothesis is that they are more closely associated with the Ether than with matter, that they act primarily and directly on the Ether, and only indirectly on matter, and that they are able to continue in their Ether habitations when the material particles are worn out and discarded. In justification for this I wish to say, as a physicist, that most, possibly all, of our actions on matter are exerted through the Ether: some obviously, like propulsion by electric motors, others less conspicuously, but just as really, wherever force crosses empty space. For atoms are never in contact.

But we have no sense organs for the Ether. To our present animal senses it is entirely elusive. Hence we shall know nothing about any personalities associated only with an Éther body unless they can operate on our senses in some way. To do this they must operate on matter. Let us suppose then that they can extract organised material and mould it, as a sculptor moulds his clay or as a painter treats his pigments, until they have fashioned a material representation which we may be able to see and touch, and which, if imbued with energy, may perform physical actions, such as the motion of objects.

This is not an unfounded guess; for we know that the familiar material body has been built up in its present definite shape out of food not in the least like it; that the shape of the material body depends on the formative organising principle, not on the aliment provided. That is the peculiarity of live things. They are able to display themselves, to exhibit their own shape, by means of any

kind of wholesome material. In this they are unlike crystals, of which the shape is entirely dependent on the nutriment supplied.

We have, therefore, only to suppose that this formative principle or constructive power persists. And we need not have any great difficulty in supposing, if the facts warrant and suggest the idea, that this same formative principle can continue to act occasionally even on matter, when suitable organised protoplasmic material is provided; and that the material can be moulded into the same likeness as of old, although imperfectly and very temporarily.

In this general way, therefore, I would seek to account for objective metapsychical phenomena. That deceased human beings are often thus engaged need not be assumed. The formative unconscious power or principle may be much more general than that, but it must also be In an egg the formative principle exists which specific. constructs a bird; from the ovum of a dog, a dog emerges; the formative principle in an acorn constructs an oak. The construction is in every familiar case specific. So if human hands and faces are produced, or even if things like garments and veils are imitated, it is not unreasonable to suppose that some human element-in the latter case perhaps a conscious elementis somehow concerned in the production.

Subjective metapsychics is still easier to associate with human survival. The controlling immaterial entity, the living personality, was known, while here, to be able to operate on the cells of its brain, so as not only to move muscles but thereby to convey ideas intelligible to other similar personalities who were acquainted with the conventional signs or language. And it is a question of evidence whether this power of operating on brains can be extended to other brains, so that a personality which has lost the use of its own instrument may be able, with difficulty and by permission, to work similarly on the brain of some hospitable person who partially vacates his instrument in trance, or who allows part of it to be used for moving either his hand in writing or his organs of speech. If so, the ideas thus conveyed may mainly belong and be largely appropriate, not to the host or "medium," but to the actuating personality or "control." Though admittedly the habit and cultivation of the medium's brain may to some extent hamper free and unsophisticated and fully intelligent control, and may necessitate a judicious selection of topics or of language, such as the instrument may be able to transmit without undue and telergic effort.

It is unnecessary to elaborate this further, because these are the facts which more strongly than any others demonstrate survival. Whether the evidence, as yet, constitutes proof is a perfectly reasonable thing to discuss; and there may be differences of opinion. But no artificial objections need be raised by the difficulty of realising how it can possibly be done. The appearances are exactly as if the simple explanation were the true one. And there have been several cases in science where, after striving for a more complicated theory, we have found after all that Reality and Appearance were not so different as had been surmised. For instance, after much hesitation we had to decide that the red appearances round the sun at the time of an eclipse, which looked like flames, really were flames and not anything less familiar. Again, when in old days the Danish astronomer, Roemer, sought to explain certain curious anomalies in the motion of Jupiter's Satellites, by the supposition that light had a finite velocity and took a measurable time to bring the information-the suggestion was in most quarters scouted as too simple and *ad hoc* an explanation; and under the name "the equation of light," it was rejected and unused for the best part of a century; until an independent and quite different observation by the English astronomer Bradley required a similar explanation, and thereby established it beyond dispute. The messenger had lagged on the journey-that was all.

Let it not be supposed, however, that the discovery of

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the finite rate of propagation of light is a small discovery; it has turned out to have the most portentous consequences; for, as we learn from Einstein, the velocity of light is perhaps the only absolute and unchangeable

So I expect it will be with the spiritistic hypothesis in some developed form. Childishly simple as it appears, seemingly more appropriate to primitive man than to Fellows of the Royal Society, it may turn out not only to be true but to involve consequences of tremendous moment to mankind; indeed it may outweigh all other discoveries in its influence on human will and conduct!

I have been led on in a more positive direction than I had intended, and have broken off my catalogue of denials, such as I thought Professor Richet's article called for. Denial is no pleasure to me: and I have nothing so fundamental to deny as the resuscitation and utilisation of corpses—a procedure which, if it were possible, might legitimately be stigmatised as necromancy. But there are a few sentences in Professor Richet's article to which I wish to oppose a negative. They are as follows :—

First, the implication (by the use of the word "cannot") that any reasonable holder of the spiritistic view would *like* to deny physiological and pathological facts if he were able. It is not a question of "cannot," it is a question of "do not": we accept them fully. If the instrument is out of order or interfered with or drugged, no sign of intelligence can be made. Injure a person's brain, and his mind is cut off from our ken. It is isolated, not annihilated. Mind and Brain belong to different categories. A brickbat is a curious weapon against a mind, but it is effective against a brain. Mind belongs to psychology, not to physiology.

Second, that any sensible people hold that an instrument is not necessary for communication and response. On the contrary, they hold that it is necessary, quite necessary, and that that is the use of a medium. If an

thing in the physical universe.

electric lamp is spoiled, the usual plan is to replace it by another. That other may be an inferior one, but the current must pass or you will get no light. Integrity of some instrument is essential to rational communication.

Thirdly, that 999 communications out of a thousand are ridiculous. If we eliminate obvious nonsense and lunacy, the statement is not true. If it were true it would indeed be a damning fact. Being a question of fact, it is important: and I maintain that communications obtained through reputable and tested and genuine mediums are nearly all of them sensible, are often of surprising interest, and are sometimes of value. In this matter I claim to have had more experience than my friend. The volumes of the *S.P.R. Journal* and *Proceedings* contain plenty of instances, and many more are known to me and to my readers. Indeed, in this country and in America the multitude of rational, and sometimes ingeniously devised and extremely evidential, communications is overwhelming.

But it will be objected, the facts as a whole will not be content with that simple idea—the idea of the vicarious use of other people's brain-nerve-muscle mechanism for the transmission of messages from a surviving etheriallyembodied once-incarnate personality-even if that idea can be rationalized. The notion of human survival beyond bodily death is well able to account for simple personal communications to surviving relatives, messages of affection and advice, and things of that sort. Those are what have suggested the idea. It is obvious that that is their superficial appearance. The notion may also serve most naturally to account for the incidents of classical scholarship, and literary allusion, beyond the scope of the medium's learning or cultivation. But Subjective Metapsychics contains many other phenomena besides these. It contains travelling clairvoyance, for instance, when information is given about what is happening at distance, or when apparently telepathic effects are produced across a continent; or, more puzzling still, when sealed documents and unopened books are read; and, most puzzling of all, when future events are predicted. Do

I seriously claim to have the beginnings of a working hypothesis sufficient to account for these things?

Well, I do! Let me try to expound it tentatively in a few words.

The dissociation of personality from the restrictions of the material body need not only occur at death. Some people may have rather loose connexion during life. Their animated etherial vehicle, or some part of it, may indistinctly be conceived as able to wander during sleep, or to leave the main part of the body during trance. Usually only the spirit is supposed to leave at such times—by those who hold that there is such a thing as spirit—and possibly that may be sufficient for the purposes of travelling clairvoyance and for cryptaesthesic sensibility; but if it turns out that a spirit *must* have a habitation of some kind, I shall not be deterred from pressing an etherial body into the service. The facts may not necessitate it, or they may. We shall see.

But how are we to account for the reading of sealed envelopes, the penetration of opaque obstacles? Well, opacity is a thing that can be treated physically. It means that waves of light cannot get through: they are either reflected back, or they are absorbed and turned into heat, by an opaque body. A conducting metal represents one type, a "black body" the other type of opacity; and there are all grades of obstruction to ether waves. But opacity does not mean that nothing can get through. I am not prepared with a physical explanation of how these clairvoyant things can be done. The phenomenon is to me the most puzzling of all. I doubt if it can be solved in terms of "matter." No adequate attempt has yet been made to solve it in terms of "Ether." X-rays give us a hint: but I am not sure that it is done in a physical way at all. There is some evidence-not much-that the contents of the book have to be, or have had to be, in some person's mind: and whether that which has once caused a mental impression can for that reason be more easily read, or whether the information is somehow mentally conveyed by other than a physical process, I do not know. I am not afraid of a physical explanation, but prefer to wait for more knowledge of the facts.

Those who have read Dr. Eugène Osty's book called Supernormal Faculties in Man,<sup>1</sup> now translated by Mr. Stanley de Brath, will be astonished at the remarkable instances, that have come mainly within his own experience, of trustworthy clairvoyant and diagnostic faculty; so that this eminent physician and neurologist is able to apply what he calls metagnomy, and Richet calls cryptaesthesia, to the understanding and relief of severe bodily ailments. He gives examples not only of diagnosis,often by means of what is frequently called psychometry, from a piece of cloth or other object belonging to the patient,-he also gives examples of prognosis, sometimes verified; and a few instances of what might here be stigmatised as "fortune-telling." The collection of cases in that book seem to me well worthy of the attention of Biologists; and inasmuch as he, like Professor Richet, attributes them to a paranormal extension of purely human faculty, without any of what might be called supernormal assistance, there may be less than usual in his book to repel them by unacceptable and quasi-childish hypotheses. At any rate Dr. Osty narrates the facts frankly, and quotes testimony from some of the clairvoyants themselves as to the way the impressions seem to come to them. The result seems to be a body of evidence which cannot reasonably be overlooked by men of science. Moreover this alone shows, if it were necessary, that Professor Richet is not alone in his cautious attitude to theory, and rejection of spiritistic views, but is supported by confrères of similarly great experience.

Prevision does not give me the profound difficulty that at present it gives Professor Richet. If we have to modify our notion of Time, and regard it as more subjective than hitherto—well, we can face even that; but at present I do not see the necessity. If any one survives there must be many, and some have survived for a long time. If there is progress, as they tell us there is—as undoubtedly there must be if survival is a reality in a

<sup>1</sup> La Connaissance supra-normale Etude expérimentale (Paris, 1923).

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rational universe,—some will have acquired more knowledge and power than we at present possess. And, for evidential purposes, it is not impossible that these more learned individuals may deign to lend assistance.

Scientific inference, even to us, is possible, and physical prediction can be based upon that. There are many kinds of prediction known to us here and now. Α transit or an eclipse is one very simple type. A railway time-table is another. I can predict that I shall go by the 11.15 to Paris this day fortnight. Competent people can predict that Aldebaran will be occulted by the moon at 4.7 a.m. on the 23rd of August, 1924; or that Mars will graze or rather dip under the left-hand top of the moon, and remain invisible from 8.3 to 8.23 p.m. on the evening of the 5th of November in this same year. One class of prediction is based on planning, which we may or may not carry out, and is contingent upon "strikes." The other is based upon calculation from present knowledge, and is contingent on their being no cometary or other disturbance to affect the equanimity of the moon. Predictions are always contingent, never infallible. Yet one may feel reasonably certain that frost will occur next winter, and I hope equally certain that France and England will continue good friends.

To take a small instance. Why am I sure that our differences of opinion about details of the Universe will not upset the amicable relations between Richet and myself? The answer is, Because we both have characters of fair stability on which reliance can be placed.

Very well then, a higher being—I do not mean Deity, for that may go without saying, but people who have advanced in knowledge, grown in intelligence,—may be able to infer and plan and predict events, of to us surprising improbability, far ahead. They see further than we do. They have greater power of ratiocination, they are better judges of character, and can tell with fair assurance how even people will behave, as well as, more easily, what mechanical things will do.

But are we in touch with these exalted intelligences? Is it likely that they take the trouble to come and talk domesticities through a medium here ? No, by no means; at least we need not look for such condescension. We are not in touch with them, but our friends on the other side are. They, let us suppose, want to give evidence of the reality of things which are strange to us. They want to wake us up out of our materialistic torpor: so every now and then our friends are allowed to glean information from some higher being, and to convey it to us. If Newton or Shakespeare were alive on the earth to-day, even I might be allowed to speak to him occasionally: and if I was talking to ignorant people afterwards, though I could not convey one tithe of what he might have told me, I might be able to impress a yokel by predicting an eclipse or a comet, or by foretelling some chain of events that would excite interest and astonishment.

So we need not be unduly perturbed at finding that those on the other side possess powers which we do not understand. We ourselves possess powers which our ancestors would have thought miraculous; and our descendants will smile at the satisfaction with which we view our petty achievements in, say, locomotion and intercommunication. Prometheus was regarded almost as a god for discovering fire. Yet any urchin with a box of matches could set-if not the Thames-at least a Thames warehouse on fire. It took a Faraday to discover magneto-electricity; but every electrical shop sells telephones and dynamos. It needed Maxwell and Hertz to discover electrical waves; but now, one can hear Paris concerts by a thing rigged up in an English or Scottish barn. To modify the well-known tag into something more certainly true: "There is nothing either new or strange but thinking makes it so."