THE SCIENCE OF THE SUPER-NORMAL

 \mathbf{BY}

HANS DRIESCH

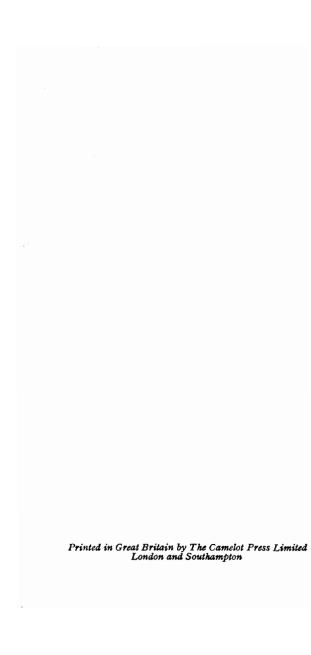
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FOREWORD

HIS book marks a distinction between psychical research, on the one hand, and spiritualism, on the other. The two terms are often regarded as synonymous, but they are not. Psychical research aims at being a science, while spiritualism or spiritism is a pronouncement of faith. It is true that psychical research deals with topics which are ignored by ordinary scientific people, but it deals with them according to the methods of science, and arrives at carefully deduced conclusions. The method science in such a case is to stress all veræ causæ to the uttermost, and not to assume anything in the smallest degree supernormal unless all normal causes are carefully excluded. Among the normal causes, fraud and inaccuracy of statement have to be strenuously guarded against; and the effort at guarding against them in every new case must seem rather tiresome to those whose experience has shown that supernormal things actually occur.

There are some to whom supernormal things are of such frequent occurrence that the prefix seems to them almost unnecessary: things ordinarily so called have become by custom practically normal. Hence they tend to theorise from a different basis; these, who rightly call themselves spiritualists, start from an assured platform from which occurrences, which to those with less or no experience seem incredible, range themselves among expected phenomena, and are just as intelligible as anything open to ordinary

observation. Nevertheless, in presenting the subject to novices, or persons without this experience, it is wise and necessary not to assume any more than

they are ready to grant.

The biologist who takes a materialistic view of the action of live things, and who declines to recognise the existence of an entity called life or mind apart from the physical organs which commonly express their volitions, must find it peculiarly difficult to accept as genuine the appearance of disembodied entities. Professor Hans Driesch began his studies and made his reputation as a distinguished biologist; he became impressed with the fact that the action of living beings could not be explained on physical and chemical principles alone, but that their actions exhibited a purpose or design which was a demonstration of something that he called 'entelechy,' the rudiments of which were perceived in every spontaneous activity of living creatures. The behaviour of a live thing was in fact the demonstration that something existed apart from its bodily organs and their secretions - something which must be regarded from an abstract point of view, no matter what chemical explanation can be given of any stimulus. He therefore boldly called himself a Vitalist, and in some sort is a leader of that school of thought. This mode of regarding the universe affected his whole philosophy, and ultimately caused him to accept the Chair of Philosophy in the University of Leipzig, so as to extend the influence of his conceptions over the whole field of knowledge.

In this introduction to psychical theory, Professor Driesch does not assume an experience comparable to his own on the part of novices, but rather admits and shares their uncertainties and difficulties; he

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realises in fact that what is wanted more than anything else at the present time is the making certain of a basis of genuine observational fact. He therefore assumes all the difficulties, of which the chief is fraud both conscious and unconscious, and urges that stringent precautions be taken against it. The whole of the first part of the book therefore regards the subject from the point of view of a person with no supernormal experience, but who has been long habituated to the methods of orthodox science and to the conclusions therein drawn. Only in the second part of the book does he allow himself to utilise the work of the Society for Psychical Research, of which he was for two years President (1926-27), and so gradually leads his disciples on to a more advanced knowledge of these things and to the overwhelming evidence for some of them; though still there remain others of which he himself does not feel too sure, since the deductions that would have to be made are so extraordinary, and because it is difficult to make absolutely secure the evidence for statements upholding them.

The phenomena arrange themselves in two main groups, the parapsychical and the paraphysical; and he considers that for the experimental establishment of reality the paraphysical stand first, although they are admittedly on a lower plane and have less important consequences than the psychical variety. And it may be also that among men of science the physical phenomena will be the first to attract attention, as being more like those which they are accustomed to investigate; and that it is these which they will in the first instance accept, if ever their powers of resistance are broken down by the evidence. The Editor of the most widely circulated scientific

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journal, called *Nature*, has expressed his opinion that if that journal admitted the account of any supernormalities to its columns it would be likely in the first instance to select those more akin to its usual contents and which might be explored by more or less ordinary apparatus.

That Professor Driesch's manifesto will have the effect of stimulating his brother scientists into the domain of psychical research is hardly to be expected; and yet the cautious way in which he approaches the subject, and the lavishness of the precautions which he advocates, ought to have some effect in that direction. It is probable that very few of those who call themselves spiritualists will be attracted by this book: they will be repelled by the extremity of scientific caution which is displayed throughout. They would not find any instances of phenomena to which they were accustomed here quoted. It is in fact not like a poem or literary treatise in which they can take delight, but is more like a grammar or other dull uninspiring work containing elementary cautions and suspicions, which they have, sometimes unwisely, gone far beyond. And yet it may be good for them, as showing the kind of evidence necessary to the establishment of supernormal phenomena before they are acceptable or credible to orthodox science.

OLIVER LODGE

28th August, 1933

PREFACE

The present work is not intended to be a text-book of psychical research. The object of a text-book is critically and systematically to survey the established knowledge in a given field, both as to the facts and as to the theories put forward to explain them. The time is not yet ripe for this in the field of psychical research. Moreover, a number of good provisional surveys of the subject are already in existence, though unfortunately many of them do not distinguish with sufficient precision between facts that are really established and those that are merely alleged.

This book is intended to be a guide for those who want to work in the field of psychical research with hope of success, both from the point of view of actual investigation of the facts and from that of their theoretical interpretation. How, on the one hand, is the reality of the facts to be determined, and on the other hand, is a particular theoretical explanation to be chosen from the many that present themselves? To investigate these problems is our task. In other words, how, in the first place, is one to avoid intentional or unintentional deception, and, in the second place, what would constitute an experimentum crucis for the establishment of a theory?

The theoretical part of this book therefore

investigates the possibility of establishing a theory in the future, without committing itself to any particular one; but at least the notion is advocated that there are varying degrees of probability. This part falls into two sections. The former of these tries to determine how many 'fundamental' phenomena there are, and at the same time discusses the possibility of reducing the number of what at first sight appear to be different types of phenomena; the second section deals with the genuinely fundamental theories. In both sections the problem of the experimentum crucis is brought forward.

experimentum crucis is brought forward.

The question as to what facts are to be regarded as genuinely established plays a secondary rôle in this book, although it is of course alluded to: it naturally arises constantly in the discussion of the methods by which the phenomena can be established. When all the necessary precautions, on the strictest principles, in regard to any particular phenomenon have been observed, and the phenomenon still occurs, then it is clearly 'established' and can be regarded as a fact. If I were not convinced that there does exist a certain number, even though not a very great one, of established facts in this field, I would not have written this book but would have abandoned the 'occultists' to themselves and to their fate.

The attitude of 'official' science to psychical research is still one that will in the future appear quite irresponsible. People constantly confuse psychical research with spiritualism, and they do not

appreciate the fact that the former name is descriptive of a specific field of *investigation*, whereas the latter is that of one particular *hypothesis*, the truth or falseness of which does not in the least affect the results of the investigations on which it is based. One might as well confuse the general doctrine of evolution with the special form given to it by Darwin in his theory of chance variations.

People often regard themselves as very 'enlightened' when in fact they are the opposite, being merely dogmatically hidebound. They think they know 'what 'can happen and what can't.' Moreover, many of those who are most assiduously sceptical take their knowledge from some casual newspaper article. This is hardly enough, even if the article is a good one of its kind. What would be said of a man who collected tit-bits about chemistry here and there from the newspapers, and then lectured the chemists? But so it is in our field. People have not even any idea what an exhaustive literature it has. Who amongst the sceptics so much as knows the publications of the Society for Psychical Research, or appreciates their importance and that of the great scientific society which produces them?

This insupportable state of affairs, due, as it largely is, to academic indifference, must really be condemned in unmistakable terms, once and for all. Universities should certainly take up a critical attitude towards new ideas; but surely they are not mere institutions for the preservation of existing ideas, acting as if everything essential were already

known and concerning themselves only with trifling improvements in points of detail. It is the fact that barriers are raised against 'vital' new ideas, and such a thing is insupportable in the present state of affairs. People do not want to re-learn, fundamentally to reconstruct their whole outlook. And we are in fact confronted in psychical research with the possibility of having to reconstruct our outlook to an extent that has no parallel, nor ever has had. Here truly there is not dross to be found, but gold!

A special difficulty in critical psychical research is the fact that one has constantly to fight on two fronts: against the dogmatic negativists and against those who are all too credulous. I need hardly add that I do not include amongst the opponents of psychical research those who are healthily sceptical. Indeed, I regard myself as one of them, for I also allow myself to be convinced only with great difficulty and always step by step and with constant reference to the general group of facts that would be established by the particular phenomenon in question. And even if I accept such a group of facts as genuine, this does not necessarily involve my acceptance of other groups. For in a field of investigation so shot through by possibilities of deception as is psychical research, it is positively impossible to take carefulness too far. But of this I shall have much to say in the text.

I shall also have much to say of those I describe as credulous; but I should like without delay strongly to impress on them the absurdity of so readily taking offence, to say nothing of bringing actions for slander. It is in fact no reproach against a man, certainly no moral reproach, and not even an intellectual one, when the suspicion is expressed that he has been 'taken in.' The conditions are so incredibly difficult, particularly in the field of the physical phenomena, that probably every investigator is occasionally deceived. To establish ideal conditions of certitude is a task, since the subjects of the investigation are human beings, which almost exceeds the powers of the investigator. Nevertheless, in view of the profound novelty of the phenomena, the conditions must be 'ideal' if the facts are to be accepted.

The medium also should not feel offended, not even when the suspicion of conscious as well as somnambulistic and unconscious fraud is expressed. The importance of the subject is such that there must be freedom to express such suspicions. I think that a truly honest medium, who is devoted to the subject, would not in fact feel offended. He might certainly feel a martyr; but is it not a great thing to be a martyr and patiently to bear one's martyrdom? It should in fact be the aim of the investigator, as well as of the medium, to convince the severest sceptics, precisely those, indeed, who express the suspicion of fraud. It is precisely these, I repeat, who must be convinced, and this can only be done by inviting them again and again to sittings. Unfortunately it has recently become a common practice to exclude from subsequent sittings, as 'disturbing influences,' those who deny the reality

of the phenomena, and even those who express doubts. People who take up this attitude little know how seriously they injure the science!

A society for the investigation of psychical research must be neutral in its outlook. It must accept as members those who are sceptics and those who are convinced, animists, spiritualists, mechanists, and what not. Earnest labour in the service of truth, based on knowledge of scientific methodology, should be the only condition for admission to membership of such a society. It should take 'Facts first of all' as its motto; and its method of studying these facts should be 'Slow but sure.'

The last thing I want to say in these introductory words is this: psychical research has nothing whatever to do with the 'mystical,' 'irrational' tendencies of the present day. Psychical research is a science, just as chemistry and geology are sciences. Psychical research investigates empirically and inductively; it discovers types or forms of order within the sphere of reality, just as does any other science; if the discovery of such types is accepted as 'rational' work, then psychical research is wholly rational. Thus psychical research promotes true enlightenment, for to work rationally is to work for enlightenment.

HANS DRIESCH

PART ONE

METHOD IN PSYCHICAL RESEARCH

I

THE POSSIBILITY OF DECEPTION IN PSYCHICAL RESEARCH

HERE is no science which is not exposed to the danger of deception and even of conscious fraud. In biology we have more than once had the experience during the course of the past twenty years of seeing seemingly very important experimental results in regard to the socalled inheritance of acquired characteristics become quite worthless because there arose a wellfounded suspicion of fraud in regard to certain The fraud perhaps affected only those particular points; but for the sake of scientific integrity the whole had to be rejected, perhaps unjustly. It is not suggested that the author of the works in question himself actually cheated; perhaps it was an assistant or a servant. But it sufficed that fraud occurred; and that can happen in every department of science. For man is unfortunately a being liable to unconscious and to conscious deception.

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In the field of the natural sciences, however, the possibility of deception is never more than unilateral, even if the one side concerned consists of several persons, the investigator himself and those who assist him. The department of science with which we are here concerned, psychical research, is, on the other hand, in the most unenviable position of being exposed to a two-sided possibility of conscious or unconscious deception. The investigator and his assistant can deceive, as in every sort of scientific work; but here the subject of the investigation, the sensitive, the medium, the metagnome, or whatever one likes to call him, can also deceive. Deception on the part of the author, at least conscious deception, is just as rare as in the more strictly natural sciences; it must always be an ethical obligation to regard every author as honest until he is clearly proved the contrary. On the other hand, deception of both kinds, conscious and unconscious, on the part of the medium, has been frequent; and to protect itself with the utmost strictness against such deception must be one of the chief duties of any psychical research which seeks the right to call itself scientific.

It is naturally unpleasant for an investigator when it is shown that he has been deceived, let alone cheated, by a medium, or even when that possibility is suggested. He feels himself to some extent implicated; but in my opinion he does so unjustly. His good faith is not doubted; it is only shown that he is a man who is liable to be deceived. But what human being, however meticulously conscientious,

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is not liable to be deceived? Even the greatest men of science have sometimes made mistakes; that is, notwithstanding their conscientiousness they fell victims to deception, in the most general sense of the word. Now in psychical research, in which the subject of the investigation can himself actively contribute to the deception, in which there is not, as in the normal natural sciences, a determined state of affairs itself incapable of active deception, everything is infinitely more difficult. Hence it is really not a very serious matter when an investigator is accused of having been made the victim of deception or even of fraud. I readily agree that it is unpleasant to be so accused, one's amour propre is a little wounded. But is the desire for truth no longer to have any claim?

In certain quarters the suggestion has recently been made that all mediums should unite in order to take vigorous action, even to the length of legal process, against all who venture to express suspicions. That would be the end of scientific psychical research. Investigators of genuinely scientific outlook would simply refuse to concern themselves any further with such mediums, whether they produce genuine phenomena or not. And actions for slander are really beside the mark here, since the expression of a suspicion never in itself implies an accusation of conscious fraud. We know very well what deceptions can occur in the subconscious, half-somnambulistic state into which mediums usually fall during the production of their phenomena; conscientious

mediums have often themselves asked that steps should be taken to prevent their having subconscious recourse to extraneous 'helps,' for the use of which their conscious selves are not at all responsible. Nevertheless, if the suspicious incidents are very serious, the investigator must have the right, without incurring the risk of an action, to put forward the possibility of conscious fraud also. A really honest medium would not be in the least hurt by this; he would know how to bear his cross, in the knowledge that the truth would one day come to light.

Of course I also urge very strongly the necessity for moderation in scepticism. Conscious fraud should not be alleged until absolutely no other possibility remains open to the critic after the most careful verification. And if an investigator is involved he should not be made the object of offensive observations. A model for the conduct of such polemics is provided by the English writers. In Germany the methods of both sceptics and believers unfortunately leave much to be desired. The saying 'fortiter in re, suaviter in modo' should apply, if anywhere, in this most difficult of all fields of investigation.

I have been thinking so far of the possibility of deception or even of fraud in the actual investigation of the phenomena. It should hardly be necessary to say that in the field of theory, where pure error is alone in question, the desirability of mutual courtesy is the more evident. It is simply laughable to see animists and spiritualists grossly and

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offensively attacking each other about a subject which has hardly left its swaddling-clothes!

The Press could contribute much to controversial decency in psychical research. Unfortunately it does not always do so. There are journals that empty whole buckets of sarcasm as soon as psychical research – which they usually confuse with the specific spiritualistic hypothesis – is so much as mentioned, without having made any attempt even to glance at the serious literature of the subject.

THE FORMS OF POSSIBLE DECEPTION

NOW come to the subject of the first part of this book, the description of the manifold possibilities of deception against which the serious psychical researcher has to take precautions. I shall have to be very strict here, for even the tiniest loophole left unstopped can admit some form of deception.

First of all I shall discuss the possibilities of deception in the course of the actual investigation of the facts, and secondly the possibilities of theoretical error. The former of these is by far the more important.

English investigators have sometimes said that the psychical researcher must possess in equal degree the qualities of the natural scientist, the psychologist, the psychiatrist, the magistrate, and the conjurer. This is true, and the remark shows how difficult is our task; I need hardly add that in everything that follows, when I describe a series of necessary precautions, I set these out as an essential minimum, without in any sense claiming completeness. I should be very grateful for any additions to my catalogue of deceptions.

I. GENERAL

a. Experiment and Observation

There are two ways in which knowledge is acquired in any investigation of phenomena: observation and experiment, which is observation, in essentials, under specific conditions voluntarily and deliberately determined.

Now, in describing the possible means of guarding against deception, we must distinguish, as in all scientific work, between observation and experiment. For the rest, a profitable investigation into our field of inquiry can only be made after some general considerations have been brought forward regarding this distinction between experiment and observation as it applies specifically to psychical research. For matters are somewhat different here than they are in the normal natural sciences.

When the natural scientist carries out a normal experiment, whether in the realm of the inanimate or in that of the animate, he enters on his investigation with the definite expectation that 'something' will happen, and he does so for the purpose of ascertaining the nature of that 'something.' Strangely enough, this 'something' can be a specific kind of 'nothing,' which nevertheless remains 'something' just because it is a specific 'nothing.' For instance, in experiments in regeneration, if the amputated limb of an organism does not regenerate, then it either grows a new skin over the wound or dies. And that

is 'something,' although it is not what was anticipated. It is significant that the organism, if it is a mammal, does 'not' regenerate. And what is most important is the fact that what I may call the not-result is tested again and again under identical conditions and is always 'obtained': it thus becomes a law.

In psychical research, however, sometimes something happens and sometimes nothing at all, even though the conditions are identical on such occasions so far as they are within the control of the experimenter. In short, the certitude and uniformity of expectation are absent in experiments in psychical research. It will be said that this is not so very different from conditions in normal scientific investigations. In biology, and even in inorganic work, though less often, it can happen that in a long series of experiments a 'specific nothing' may regularly occur, only to be interrupted by the occurrence of 'something,' notwithstanding the fact that the conditions are identical so far as they are within the control of the experimenter. It may also happen in a long series of experiments that a certain 'something' is replaced by quite another 'something.'1

This criticism is certainly justified. It is said in such cases that there existed highly variable 'inner' conditions of the organism which were not within the control of the experimenter, but of which he now

¹ An example of this can be seen in my investigations into the restitution of Tubularia and Ascidia (*Archiv für Entwicklungsmechanik*, vols. v. and xiv.).

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obtains control. Might not even a mammal 'suddenly' produce phenomena of regeneration? We should be surprised if this happened – and then investigate further. Was not the saying that stone walls never transmit electromagnetic radiation proved false by X-rays?

It is nevertheless true that in psychical research, as for instance in experiments in thought-transference, this state of affairs occurs much more readily than it does in normal scientific work. Negative experiments in psychical research, by which I mean in this context experiments in which a specifically awaited event fails to occur, must be studied with great caution before they are regarded as radically negative: a fact which will later play an important part in our critical discussion. The reason for this great caution is the fact that in psychical research the investigator has less control over the 'inner conditions' than he has in biology and still less than he has in organic science.

b. Spontaneous and Anticipatory Observation

When observational psychical research is further examined it is found necessary to divide it into spontaneous and anticipatory observation, the latter of these two types being already a very primitive kind of experiment.

All true telepathy, at the time of danger to life, and all true haunting, if we admit this phenomenon, can only be observed spontaneously, at any rate in their

primary stages. That is, according to the testimony of certain persons stated phenomena simply occurred and were set down. The same is true of apports, if we are to accept these as genuine phenomena.

As soon, however, as we are confronted with an alleged haunted house or with a person in whose presence apports are said to have taken place or who is said to have been the source of telepathic communications, then things are otherwise: anticipatory observation begins and we are already carrying out an elementary sort of experiment, in the hope that something 'may' happen.

It is clear therefore, that it is particularly in this field that we have to apply the precautionary measures to be described. Verification post factum, that is, corroborative inquiry after the event, which is all that is possible in spontaneous phenomena, does not in the least deserve to be described as real verification. In such cases it is only possible to establish whether the phenomenon may have been 'genuine.' This can be done sometimes with less, sometimes with greater, certitude – in spontaneous telepathy, as we shall see, often with very great certitude.

It should hardly be necessary to say that true experiment is the most adequate way of investigating the laws of empirical reality. Experiment allows the strictest precautions against deception to be taken, and it is by its very nature capable of being repeated at will, so that in theory an infinite number of cases are available for investigation. Thus anticipatory observation is the more valuable the nearer

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it approaches to experiment; I shall have much to say in the following pages about this type of investigation.

Spontaneous observation can only seldom claim decisive scientific significance, and then only on certain definite grounds, which will be explained later. If it leads to experiment or even to anticipatory observation, then of course the case is altered; but then it is no longer 'spontaneous' observation.

It is to-day customary in some quarters to put aside all experimental work and even all carefully conducted anticipatory observation as 'exaggeratedly critical,' and to seek salvation in the procuring of numerous cases of spontaneous observation. I have nothing at all against the study of such cases, if only they do not rest quite exclusively on pure hearsay. Discussion of them may arouse a desire for critical investigation. But in and by themselves (apart, as we shall see, from spontaneous telepathy) such cases have very little significance; until they have been investigated they remain mere assertions. And is it even possible to be 'exaggeratedly critical'? Other sciences do not think so!

I will now, reserving precise definitions for a later section, briefly and provisionally classify the phenomena of psychical research into the three categories to which they belong; spontaneous observation, anticipatory observation, and experiment. In doing so I as yet pass no judgment on the reality of these alleged phenomena. I think I may assume

that the reader will have a general notion of the phenomena represented by the terms that follow.

In the field of spontaneous observation we find the following phenomena: all cases of true telepathy; many cases of thought-reading, clairvoyance and prophecy; hauntings, materialisations, apports, telekineses, phantasms, in their primary stages, that is, on their first and unexpected occurrences.

Anticipatory observation is undertaken in socalled sittings for certain physical phenomena, as well as in hauntings, or in the investigation of these phenomena by 'commissions'; many cases of thoughttransference, clairvoyance and prophecy, very often in the form of psychometry; telekineses, materialisations, apports, hauntings, in their secondary stages, that is, after they have already been spontaneously observed in relation to specific people or specific places, so as to give rise to the supposition that something will very likely happen.

So far only conscious (not spontaneous) telepathy and thought-transference have been made the object of experiment in the strict sense of the word, and even these not very often; and quite recently telekineses, by Osty.

2. Possibilities of Deception in Spontaneous Observation

We must first of all discuss the precautions to be taken against conscious and unconscious deception in the spontaneous observation of alleged supernormal phenomena.

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As has already been said, there is no question here of obtaining 'certitude' in the strict sense of the word; for it is quite impossible that there should be 'certitude' in regard to a phenomenon about which nothing is known, not even that it is going to take place. All that can be done is to attain post factum a greater or less degree of certitude as to the genuineness of the occurrence, or rather a conviction of such genuineness, by reflecting on the conditions under which the occurrence took place. We are after all concerned here only with observation; experiment does not enter into the question even in the feeble form of anticipatory observation.

a. Physical Phenomena

The possibility of attaining to any degree of certitude after the event must always be very slight in the field of spontaneous supernormal phenomena. Something has been reported, or I have myself seen or heard it: that is all. For, as will be understood, we are here concerned with these phenomena in what we have called their 'primary stage,' that is, such phenomena on their first and quite unexpected occurrence. We shall see later that matters are different when a repetition of the occurrence is 'awaited' on the ground of its primary occurrence.

If a reported event is in question we shall naturally consider first of all the trustworthiness of the person making the report. Is he a fanciful or a soberminded person? Does he suffer from frequent hallucinations? Should this fact be established, or

if the reporter is generally known as a fanciful individual, perhaps even a chronic liar, then of course his report would be immediately rejected. Otherwise developments would be awaited and further investigation would be carried out.

If I have myself seen or heard something of the kind, and know myself never to have suffered from hallucinations, I should inquire into my own mental state: was I possibly a little disturbed or a little afraid, perhaps because it was dark, or was I tired and in an almost dreamlike state?

If this kind of inquiry produces a result favourable to the reality of the phenomenon or at least in favour of the possibility of its reality, we must naturally preserve neutrality as to theory, a readiness to admit anything as logically possible, and we must proceed to objective investigation.

Are there rats in the haunted house? Or is it possible that a gross fraud has been carried out to frighten people by throwing stones? In the case of telekinetic phenomena, are suspicious wires or threads to be found in the room? Was there a strong wind? If so, could it perhaps have produced the movements of a curtain?

If all these inquiries have been made without any suspicious circumstance having been discovered, we must proceed to anticipatory observation. For it is clear that such investigations, even if they lead to a satisfactory conclusion, cannot produce more than a very provisional conviction of the reality of the

¹ Cp. pp. 107ff. below.

phenomenon in the mind of a student who is at all critical. Phenomena of the kind we are discussing are very remarkable in relation to our general knowledge of empirical reality and its laws: a reflection that may, nay must, be made by a thoroughly neutral and even by an affirmative observer.

b. Mental Phenomena

In the field of supernormal mental happenings conditions are somewhat more favourable for spontaneous observation, because consideration of the conditions under which they occur can be pursued into much greater detail.

True Telepathy

We must first discuss true telepathy. It is well known that in true spontaneous telepathy we are confronted with the following type of occurrence: a given person one day says or writes that he has had a waking or dreaming experience in regard to the fate or mental state of a second person, often far distant, whom he has seen or heard in fear of death or concerning whom he has simply had a vague but very strong 'monition' of danger, though having no knowledge of his illness or other dangerous situation.¹

Such spontaneous experiences can be regarded as genuinely telepathic, that is, not explicable on the lines of the normal sensory acquisition of knowledge

¹ The English investigators are particularly strict in regard to this point.

possessed by another, if the following conditions are fulfilled:

First, if the experience was written down or told to a trustworthy person before its verification, so that the result cannot be explained by an error of memory following on the subsequently received news of the event in question, as for instance, the death of the person concerned. This possibility has always been treated with special care by the investigators of the Society for Psychical Research.¹

Secondly, if a considerable number of other people are known to have had similar experiences in other cases.

Thirdly, if coincidence is present both as regards time and as regards content, that is, if the experience corresponds more or less accurately in time with the event experienced, and if the content of the event was correctly and super-normally 'perceived.'

Fourthly, if the distance between the agent and the percipient really is such as radically to exclude all normal seeing and hearing even assuming the presence of hyperesthesia of the senses.

If all these conditions are fulfilled the experience may be regarded as an example of true spontaneous telepathy. But if even one of these conditions is not fulfilled the supernormal nature of the experience must remain doubtful.

Now as a matter of fact there do exist occurrences in which all these conditions are fulfilled, and they even exist to a considerable number, as can be seen

¹ Cp. Phantasms of the Living, i. 134ff.

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from a glance at *Phantasms of the Living* and at the additions to it in the *Proceedings* of the S.P.R. This fact at once fulfils our second condition, that there must be a considerable number of similar cases.

Our first condition, the reporting of the experience to others before its verification, has been observed, as already mentioned, in nearly all the cases which the S.P.R. has thought worthy of permanent record. By far the larger proportion of these cases took place over very great distances, and they thus fulfil our fourth condition, for hyperesthesia between England and India, for instance, is unknown.

There remains the third and most important condition, the required coincidence in time and content. First as to the latter. The reproduction of the objective happening in the experience of the person telepathically influenced often goes into the most minute details, which are often such as are even contrary to the percipient's knowledge of the agent.

In regard to temporal coincidence we are in the fortunate position, so far as monitions of death are concerned, of being able to undertake such precise analyses of the probabilities as to exclude 'chance' for all practical purposes. The English investigators made such investigations on the basis of two established facts, first, the datum that every man dies only once, and, secondly, the fact that the numerical relation between a man dying at a given moment and the total number of men is variable within only very restricted limits. They found that the number

of temporal coincidences in alleged telepathic monitions of death is 465 times greater than the probability of such coincidences.¹ Thus the alleged telepathic cases can be accepted as genuinely supernormal.

Certain reservations might still be made in so far as the temporal coincidence is not always absolutely exact, allowing, of course, for the various 'times' ruling in different parts of the world. But the experience alleged to be telepathic on the ground of its remaining indicia, when it is temporally connected with the objective event at all, follows it so closely that the small interval between the phenomenon and its reproduction cannot affect the genuinely supernormal status of the latter, especially when it is remembered that we know practically nothing of the processes of telepathic communication. course, if the monition was experienced a little before the event instead of a little after, the experience would not be a telepathic one according to our definition. When the supernormal experience lags behind the actual event, it is usually supposed that the subconsciousness of the recipient was actually impressed by the objective event synchronously with it, but that there was a delay in the rising of the impression into consciousness.

Thought-Reading, Clairvoyance, Prophecy

We distinguish true spontaneous telepathy from thought-reading, clairvoyance, and prophecy. Strict definitions will be given later. For the present the

¹ Phantasms of the Living, ii. 1ff.; Proc. S.P.R., x. 245ff.

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following descriptions will suffice: in spontaneous telepathy the agent actively 'sends,' whether consciously or unconsciously, and he who has the experience, the percipient, 'receives' in a purely passive manner. The impression sent and received becomes a part of mental experience.

In thought-reading, on the contrary, it is the percipient, usually one who is definitely a metagnome (to use the customary French word instead of the questionable term 'medium'), who is active, even if usually only unconsciously active. He 'wants' to read, that is, to acquire mental contents. The agent quite passively allows himself to be read, renders up his mental content in a purely passive manner. For in thought-reading also, both sent and received, it is mental experiences that are in question.

In clairvoyance the percipient becomes aware of objective facts in nature, whether distant in space or in the past. Clairvoyance into the future is called prophecy.

We have already considered spontaneous telepathy in the form of simple observation, which is all that is possible in regard to that phenomenon, from the point of view of the precautions to be taken. We must now proceed to consider in the same way thought-reading, clairvoyance and prophecy. We will do so on the assumption that these three groups of facts represent real phenomena and that they really are groups of different phenomena. We shall have to return later to this second point.

All these things are referred to at the moment only in so far as they are occasionally observed spontaneously. That is, it sometimes happens that a given person will suddenly, without expecting to do so, make a statement about another person's thoughts or about physical events, which statement turns out to be correct, although the person making it apparently had no means of acquiring its content normally.

What can be the criteria of genuineness of such happenings, and how far can we ensure that we do not falsely accept normal or chance phenomena as genuinely supernormal?

It appears to me that, apart from prophecy, the same conditions must be fulfilled as in spontaneous telepathy: the recording of the event before its verification, the existence of a large number of similar cases, coincidence, and exclusion of normal means of acquiring the knowledge. But how do matters stand when inspected in greater detail?

It is possible that clairvoyance may be capable of being 'reduced' to thought-reading, since objective events are also in most cases experienced by somebody, so that it may be this experience that is supernormally grasped and not the objective event as such. But let us for the time being leave such problems of theory and of interpretation on one side. If we admit thought-reading and clairvoyance, for the time being, as two distinct groups of phenomena, then the following observations may be made in regard to the precautions to be taken in observing them spontaneously.

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There is nothing special to add to the first two conditions, communication to another before verification, and inclusion in a great number of similar cases.

As regards the exclusion of normal means of communication, our fourth condition, greater care is required here than in spontaneous telepathy, for often only short distances separate the percipient from the possessor of the mental content grasped by him, in the case of thought-reading, or from the objective situation, in the case of clairvoyance.

Hyperesthesia of the senses can acquire importance in this context; perhaps, for instance, the agent, without knowing it, whispers his thoughts 'to himself.' Therefore spontaneous cases can only be admitted, and allowed to lead to further investigation of an anticipatory kind, if the distances over which they occurred were not too small.

As regards coincidence, our third condition, temporal coincidence is here appreciably less important, whereas coincidence in content becomes much more important. For the question of the kind of accuracy with which an alleged supernormal statement has been made comes to the front. For instance, there are many 'long objects'! Again, quite a number of people are in love or married or have children, etc. On the other hand, there is only a limited range of types of human character, so that successful guessing is not improbable.

As we shall have to deal with all these points in more detail when we come to discuss them from the

point of view of anticipatory observation and from that of experiment, the foregoing remarks will suffice for the moment. Spontaneous observation cannot, at any rate should not, ever be regarded as definitive, but should always, however impressive it may seem, be made to lead to anticipatory observation, even if it cannot tend to true experiment. What we have said about the precautions to be taken in spontaneous observation, therefore, is only intended to save the prospective investigator from the worst disillusionment and loss of time and effort. Common sense will decide whether it is worth while in any particular case to enter on a strict investigation, or whether this is not called for.

Spontaneously observed prophecy will be considered in a special section with prophecy in general.

3. Possibilities of Deception in Anticipatory Observation

The problem of the precautions to be taken becomes of real scientific importance only when we come to consciously anticipatory observation, still leaving true experiment on one side for the time being. As opposed to 'anticipation' all spontaneous phenomena, apart from true telepathy, are provisional and of comparatively little importance from a strictly scientific point of view.

a. Physical Phenomena

We again begin with the physical phenomena, that is, we have to inquire how we can safeguard ourselves against conscious or unconscious fraud when we have progressed to the anticipatory observation of so-called telekineses, materialisations, apports, and hauntings, having obtained the impression after spontaneous observation that it would be worth while further to investigate the phenomena reported to us or possibly even experienced by us.

Unless definite haunted places are in question, the anticipatory observation will generally be carried out in so-called sittings (séances). Under these conditions the anticipatory observation is done by several sitters; this is a good thing, if only because it excludes purely subjective phenomena. There is no harm in the sitters submitting themselves at first to the requests of the mediums, who are usually of spiritualistic outlook and scientifically uneducated, to form a 'chain,' to sing, to play gramophones or similar instruments, to call on 'spirits,' and so on. Similarly, darkness may be allowed to begin with.

But it should be regarded as an imperative duty to free oneself as soon as possible from these conditions, or at any rate to try whether the phenomena will not 'come' without them.

The same is true of the sending out from the circle, at the command of the medium, of 'disturbing' persons.

It may very well be that the chain and the singing really help the phenomena, that certain sceptical or 'negative' persons really harm them, and that darkness or red light really is essential, as in photography. In view of our complete ignorance the

contrary cannot be maintained with certainty a priori.

But these conditions are undoubtedly hindrances, and therefore the attempt gradually to do away with these restrictions is unquestionably advisable. If they could be abolished many types of precaution against fraud could be at once dispensed with.

I have already proposed elsewhere that the attempt should be made to educate mediums by Coué's method of suggestion, that, either with or without hypnotisation, they should be repeatedly and convincingly 'suggested,' 'It will go all right in very strong red light (even in white light), without singing, without a chain,' and so on; this should be done twenty to thirty times and more. Success would justify the effort involved, even if only certain general obstacles to certitude were removed, without at once procuring complete certitude as to the reality of the phenomena.

The replacement of darkness or weak light by good light is really of quite fundamental importance, and I am not afraid to say that I cannot admit as quite certain any paraphysical phenomenon that took place in darkness or even in a dull red light. Of course, this is not to say that all phenomena alleged to have taken place in good light are certain! For there are such people as conjurers and they are often very skilful! When I was travelling to China an Arab came on board at Port Said, who, without assistance and without preparation of the

¹ Journ. Amer. S.P.R. (1927), xxi. 66.

smoke-room, in which the performance took place, extracted living chickens, which afterwards ran about gaily, from the waistcoat pockets of the passengers. Nobody discovered how the trick was done, even though it was admittedly nothing but a trick!

We must turn now to a detailed consideration of the necessary precautions. A great difficulty here is the fact that both the medium and the sitters must a priori be regarded as 'suspect.'

Unfortunately amiable generalisations are worthless here. For man is a strange creature! Anybody who says, 'How could this person cheat? She is the daughter of a general, or of a professor; it would be insulting even to mention fraud,' forgets, in the first place, that conscious fraud is not necessarily in question, and, secondly, that even the daughter of a general or a professor can occasionally be a strange creature, perhaps possessed by an out of the way passion for self-expression, even if not merely by a taste for practical joking.

It is precisely an honest medium, as has already been said, who should look at this matter in a purely scientific way. He should not regard a reference to fraud as insulting, but rather as a consideration which is justified in view of the extraordinary character of the phenomena. And he should not forget that 'he' is not responsible for his subconsciousness. For who indeed knows his own subconscious? If we knew it directly and consciously it would no longer be subconscious; we can get to know it only empirically

and indirectly, by means of its 'actions.' And empirical knowledge is always provisional and subject to correction; thus my subconsciousness may be quite different from the opinions I have concerning it to-day.

We now proceed to consider in turn the specific precautions that have to be taken against fraud of every kind in the field of the alleged paraphysical phenomena. Sometimes we shall have to consider the different types of phenomena separately; hauntings we leave altogether on one side for the time being.

A quite definitive decision in favour of genuineness will be much more difficult in every kind of alleged phenomenon, as has already been said, if complete darkness be present. This is true, at any rate, of the kind of sitting nowadays usual. I say expressly that this is true of the usual type of sitting. For I can imagine conditions in which a positive decision would be possible. If the medium's body has been strictly examined, if he then takes his seat under strict control, dressed in a one-piece garment without pockets, if the sitting takes place in a room in which the medium has never been or which was very thoroughly investigated before he came in, if the doors and windows of the room are locked and bolted from the inside, if I am alone in the room, apart perhaps from a few 'trustworthy' persons, all of them, however, similarly examined and dressed, then if something happens, a materialisation or an apport, I should decide for genuineness

even if the sitting took place in complete darkness.

Such conditions of investigation have never yet been put into effect. The kind of control that has so far been practiced is this:

First, forming a 'chain,' that is, holding by all the sitters of each other's hands in the form of a chain. We said above that strictly speaking the chain is perhaps superfluous. Its advantage from the point of view of control is that no sitter has his hands free. This excludes fraudulent interference requiring the hands: for it would involve a conspiracy of two sitters to free each other's hands. Of course the hands must be held firmly and not merely be touched with the fingers. Otherwise it is possible in the dark to get one hand free by causing one's neighbours to touch different fingers of the same hand, thinking that they are touching the fingers of different hands. This is a trick that has often been practised.

Secondly, undressing the medium (not the sitters) before witnesses and dressing him in a kind of tights, as was done by Schrenck.

Thirdly, placing numerous needles with luminous heads on the medium's sleeves and trousers, and also on his boots. It may be noted here with special emphasis that the medium should never be allowed to wear shoes out of which he can easily take his feet; he should always wear laced or high boots which cannot be put on or taken off without using the hands. So far as I know this last condition has never been observed.

Fourthly, the holding of the medium's hands and feet by a reliable person.

Fifthly, the careful searching of the room, including the so-called 'cabinet,' if one is present, for wires, threads, or long thin rods (the reaching-rods of the English investigators).

Sixthly, in the case of telekineses, putting such a distance between the object it is hoped to have moved that it is out of reach of the medium and everybody else present.

In Schrenck's sittings these conditions were partly carried out, and the experiments conducted in his laboratory were certainly amongst the best in recent times. He made use, in addition, of the electrical method of control invented by Krall, which enabled any suspicious movement of the medium's arms and legs to be at once noted – if it worked properly.

The sitters, apart from the chain, were not controlled. They were 'trusted' – and I have no reason for saying that they were unjustly trusted, but of course that is only a conviction.

Price then applied this form of electrical control to all the sitters, with the exception admittedly, of the secretary, who, however, was also 'guarded' in later sittings. I do not know how reliably this extended electrical control operated.

Dull red light was the rule at the sittings both of Schrenck and of Price.

Something quite new in the way of control has recently been introduced by Osty in the French Institut Métapsychique, in sittings with Rudi

Schneider.¹ This is a somewhat complicated apparatus based on the use of an infra-red beam. It was demonstrated with this apparatus that a certain invisible and non-photographable 'substance,' capable nevertheless of influencing a beam of infra-red light, is exteriorised by the medium and produces telekineses under his unconscious mental control. Work on these lines, continued as carefully as it has been begun, will perhaps be able at last to produce a thoroughly convincing result.

Continuous efforts must in fact be made, with the help of physicists and technicians, to improve the methods of control. There can be no doubt that fully adequate methods of control can be attained, and only then will a decisive judgment be possible.

As has already been said, it would be particularly important if one could 'suggest' to mediums the ability to 'work' in good light. In such light, with the medium and all those present at two metres distance from the object to be moved, it being certain that no threads, rods or wires are present, a movement of the object would render a negative opinion quite impossible even without introducing complicated methods of control.

Of course good light by itself is not enough. Such light was present when I saw Mirabelli; but a careful search of the relevant rooms for threads and the like had not been made, and so the telekineses he

¹ E. and M. Osty, Les pouvoirs inconnus de l'esprit sur la matière (1932). A brief but very clear summary is that by Besterman, Proc. S.P.R. (1932), xl. 433ff.

produced were not acceptable as reliably genuine, though they remained in part very impressive.

In view of its very questionable nature I will say nothing of the 'direct voice.' What I saw of Valiantine in Berlin was a lamentable farce, and I am unable to form a personal opinion of the present position of the Margery mediumship. I made certain proposals for the improvement of the conditions in which this mediumship operated in 1926.2 Since then various improvements appear actually to have been made; but darkness still reigns.

The phenomenon of the so-called 'raps,' alleged to be the simplest paraphysical phenomenon, though actually, if it is genuine, an astoundingly strange one, usually occurs under conditions that exclude every sort of control against conscious or unconscious fraud.

¹ Bradley, who caught Valiantine fraudulently producing alleged finger-prints of deceased persons and who frankly published his discovery, at the same time continues to maintain the genuineness of this medium's 'direct voice,' on the ground of the alleged supernormal nature of the communications made by it. Now in Berlin the 'direct voice' was certainly also fraudulent; nobody who was present could doubt that, and the content of the voice was in the last degree feeble and meaningless. In order to enable Bradley to retain the supernormal nature of the content of the communications made by the 'direct voice,' it would be necessary to imagine some such circumstances as the following, though these would be applicable only to sittings other than those held in Berlin: the 'direct voice,' that is, the alleged direct vocal statements of a 'spirit' made without the intermediary of the medium's mouth, which is definitely fraudulent, would have to be regarded as unconsciously fraudulent; it would have to be supposed that it was the medium who spoke, but in trance and really acquiring knowledge supernormally. Then the mediumship would be of the Piper or Leonard type, but surrounded with an incidental and unconscious framework of fraud.

Table-rapping in its physical aspect, that is, the raps as such, is in all probability a product of the subconsciousness of one of the sitters. The content of the rapped messages may nevertheless be supernormal, but would belong to the parapsychical phenomena.

Let us give a little further attention to 'apports,' that is, the sudden presence of objects in a specific place, under circumstances which make it impossible for these objects to have travelled there 'through free space' from their place of origin. These objects are often alleged to penetrate material bodies, walls for instance. If this most amazing of all amazing phenomena is genuine, it would be easier to admit certain other somewhat less amazing phenomena even if they occurred under conditions that were not fully satisfactory.

I have myself seen apports with two mediums. On one of these occasions the phenomena were decidedly impressive (a rain of violets in electric light); but there was no scientific control.

Unobjectionable conditions for the anticipatory observations of apports would be as follows:

All the sitters and the medium should be undressed under strict control and dressed in one-piece garments without pockets. The medium should sit on an isolated chair, near which there is no table. The room should be exhaustively examined. If under these conditions flowers or other objects suddenly lie on the floor, then apports exist. Needless to say objects such as small stones, which the medium can hold in his mouth, would signify little.

It would be to some extent satisfactory even if, in good light, only the medium were dressed and seated in the manner described and if apports then occurred.

Here also it is not enough merely to have confidence, as for instance in the cases one still comes across where somebody describes how he searched the room, found it void of flowers, locked it, and left with the medium, finding flowers in the room on returning. There are such things as confederates and master keys.

In a richly endowed institute unobjectionable investigations of apports could easily be made. Mediums who claim to produce apports could be procured under a guarantee that they would not be prosecuted if they produced no phenomena.

The habit of bringing actions must in fact be discontinued by both sides, by sceptics and by believers. There must be no more actions either for fraud or for slander – at any rate in the field of purely scientific investigation. Matters are different in the case of stage performances and particularly those in which clairvoyance and prophecy are practiced for money, though to me tolerance appears the best course even here.

We must now speak separately of 'hauntings.' The study of these phenomena must begin with spontaneous observation and with the reports or rumours based on it. Then, if the matter is taken further at all, anticipatory observation begins, either of a specific person or of a specific place; for there are

alleged to be phenomena of this type directly connected with places or with persons. Apparitions, in this context called ghosts, belong to the first type.

Only objective phenomena, such as the movements of objects, noises, even apparitions, should be described as phenomena of a genuinely haunting type. Subjective phenomena, such as the seeing of an apparition by a single person, should always be regarded as hallucinations, perhaps of telepathic origin. This is not to say that apparitions seen by several persons cannot also be hallucinations. This can be decided only by the photographic plate in the case of visual phenomena, or by a sound-recording apparatus in the case of auditory phenomena. So far as I know such an apparatus has never been employed. The use of it would considerably support, even though it would not definitively establish, the reality of the phenomena to which Mattiesen attaches such importance, those in which numerous persons, each in his appropriate perspective, are alleged to have seen an apparition.

The most general precautionary measures needed in regard to the alleged phenomena of haunting have already been discussed on p. 14, where spontaneous observation was in question. We saw that only after-control was then possible. If, however, a haunt is expected for any reason, then the necessary precautions, including fore-control, can be more strictly applied: thorough searching and sealing of the room, undressing and redressing of the medium in the case of mediumistic haunting, etc.

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It is a fact, however strange it may seem, that the existing reports of hauntings yield an appreciable probability that these phenomena are genuine; no-body who really knows these reports can dismiss them out of hand. At any rate, hauntings have attained a much higher degree of probability than such phenomena as the direct voice, apports, etc., and it is certainly the duty of science to investigate them.

The best reports are those of Walter Prince, 1 a very careful investigator, who is abused as a 'negativist' by some uncritical persons. But there are also reports, by Schrenck-Notzing for instance, which deserve careful consideration. The same is true of the communications made in a somewhat 'literary' form by F. von Gagern.

We conclude this section with a few general observations. It has sometimes been suggested that we should be on our guard against mass-hallucinations in testing the reality of paraphysical phenomena; it has even been said that all positive or even sympathetic students are hypnotised.

We admit, as has already been said, that a single person can fall victim in such investigations to an autosuggestion leading to hallucinations, especially when an emotional element is present. But this possibility appears to me to be excluded in the case of observation by several persons, at least in the usual type of sittings.

¹ References will be given later. Bozzano is one of our acutest theorisers, but unfortunately far too slipshod in accepting alleged facts.

In these the emotional element is lacking; indeed, such sittings are rather boring. And the objective fact, whether genuine or not, is simply there, as when a rod which before lay on the table now lies on the ground. Suggestion may occur in the case of materialisations, but it would have to be masssuggestion. And mass-suggestion of non-hypnotised persons, however, if it occurs at all, is, in the first place, a very rare thing.1 In the second place, masssuggestion appears to be excluded in this context because in such sittings as we are speaking of, irrespective of whether the phenomena are genuine or not, it is customary for all the observers together, and not successively, to exclaim, 'There it is,' or the like. In the third place, nobody knows what is going to happen. It would therefore have to be assumed that the medium, without speaking, communicates to all present an hallucination-provoking suggestion; but in that case the phenomenon would still be a supernormal one, though of a mental and not of a physical type. For we should then be confronted with telepathic mass-suggestion, which is a hitherto unknown phenomenon, though of course I do not question its possibility. There is, however, not the slightest evidence for it.

No decision is now possible as to the reports of such Indian phenomena as those of the mango trick, the mutilation and restoration of a human being, the

¹ So also Dessoir, *Vom Jenseits der Seele*⁶, p. 237. Mass-suggestions, if established at all, are certainly exceedingly rare, apart of course from the cases in which a doctor for curative purposes practices suggestion on Coue's lines on a group of patients simultaneously.

rope-trick, the fire ordeal, etc. In these cases mass-suggestion may have been present – if they were not mere tricks; but if so it must again have been telepathic suggestion. At least, it must have been so when the fakir either did not talk at all or talked in a language not understood by the witnesses. For then nobody could have known what was going to happen at a given moment and yet all saw it a tempo.

So far as European investigations are concerned, at any rate, we can safely leave the hypothesis of suggestion on one side.

b. Mental Phenomena

We now come to the important section in which we have to inquire into the precautions necessary in the anticipatory observation of parapsychical phenomena. Here our results will be much more satisfactory in a positive sense than was the case in the physical phenomena which we have just discussed and in which the process of anticipatory observation was, in the strictest sense, limited to the act of 'awaiting.'

We are concerned here with thought-reading and with clairvoyance. For true telepathy is always either spontaneous or experimental, and to prophecy we are devoting a later section.

I. GENERAL

Anticipatory observation must be so arranged as to take into account the fact that in this field the investigator or investigators find themselves in the presence of a medium.

The medium is either lying or sitting in a so-called trance or is perhaps to all appearances not in trance. He then makes statements by speech or in writing about things which it is supposed could not be known to him normally. These things comprise, in the case of thought-reading, the mental content of another, and, in the case of clairvoyance, objective situations in the empirical world.

The supernormal element in these things is not the actual fact that the medium knows something about the mental content of another or about an objective situation. That which is supernormal is the manner of the acquisition of his knowledge. The percipient or medium, as we know, is, in the phenomena under discussion, in contrast to telepathy, the active participant; he 'wants,' even if only unconsciously, to acquire knowledge; in the case of thought-reading, he wants, as Lehmann once aptly put it, to 'tap' the knowledge of others. These others, that is, the agents, are as passive as are the percipients in true telepathy.

In the case of knowledge supernormally acquired by the medium from the mental content of another, that is, in thought-reading, the mental contents so acquired may be actual, momentarily conscious ones. There may also be contents that once were conscious but have now been forgotten; in that case the person from whom the knowledge originates, the agent, sometimes can and sometimes cannot remember the fact in question, even though investigation elsewhere shows it to be true. Further,

the knowledge 'tapped' by the medium or percipient, may be or may have been in the possession of somebody present or absent.

We should thus have a mass of possible cases resulting from the combinations which follow:

The medium is or is not in trance.

The tapped knowledge was or was not actually present in the agent.

If not actually present it was or was not capable of being remembered.

The agent was present or absent.

The investigators have to take precautions against two groups of possible sources of error, those relating to the agent, that is, he who 'gives' out his knowledge (without knowing that he does so), and those relating to the percipient or medium, that is, he who supernormally acquires knowledge.

2. PRECAUTIONS IN REGARD TO THE BEHAVIOUR OF THE AGENT

Unconscious Indications

It is possible to give unconscious indications. But of course it is only necessary to guard oneself against this possibility when the agent and the percipient can see or hear each other. It will not always be possible to avoid this; but matters should at least be so arranged that the percipient cannot see the face of the agent. This precaution is naturally superfluous if the medium says things that the agent does not actually know; for his expression obviously can-

not give unconscious indications of things that he does not know.

Useful experiments in pseudo-thought-reading have been carried out in Kruger's Institute and by Marbe for the purpose of studying unconscious indications in cases of apparent telepathy and thoughtreading. True unconscious whispering may be in question, but also mere movements of the mouth, nose and eyes. It is possible to acquire skill in observing such movements, and perhaps the medium has acquired such skill. So take care! It is best of all, as has already been said, entirely to exclude even the possibility of the perception by the medium of unconscious indications. In many of the experiments of Upton Sinclair¹ and of the English investigators this possibility was excluded, in the nature of things, by the great distance between the agent and the percipient; the same is true of many of Wasielewski's experiments, in which the agent was in Thüringen, the percipient at the Mittelmeer.

I merely mention the most commonplace methods of normal communication, such as the music-hall performances based on the so-called Cumberlandism or muscle-reading. Even in such performances there may be something supernormal; but their essential parts are quite certainly far from the region of the supernormal, that is, there is nothing at work but thought-transference by speech, writing,

¹Whose book *Mental Radio* (1930) was rightly described by McDougall as one of the best parapsychical books. It has been very thoroughly verified and endorsed by Walter Prince.

or feeling, except that the symbols employed are refined and uncommon.

Psychological Preferences

Marbe's investigations into psychological preferences present very valuable precautionary methods in certain cases, particularly those in which the investigations takes on a genuinely experimental character. If requested to think of a colour by far the larger number of people will think first of all of red and then of green. Among figures the 5 is preferred and among cards the ace.¹

If the medium knows these facts thought-reading will be an easy matter for him and he will always obtain many 'hits.' And there exist many other similar preferences.

The best way to protect oneself against these sources of error is altogether to avoid those methods of investigation in which they arise. In inquiries which belong strictly to anticipatory observation and not to experiment, as in the researches with Mrs. Piper and Mrs. Leonard, preferences play no part. Nor do they in experiments with mediums of the type of Ossowiecki and many others.

Ambiguous Statements

It is more difficult, even in mere anticipatory observation, to guard against the vagueness and ambiguity of the statements made by mediums.

¹ These preferences vary from country to country. Much work on them will be found in recent volumes of the *Proceedings* of the S.P.R.—Trans.

Hellwig has methodically carried out very important investigations in this field, investigations which retain their value even if it is granted to his critics that he has selected out of the mass of available cases only the 'bad' ones, passing over the 'good' examples. But the bad cases were there, and in regard to the question of acquiring certitude, a question the strict treatment of which should be valued by every serious psychical researcher, it is precisely these cases that are important, even if they are practically insignificant in relation to the mass of good material in certain long series of investigations. Many series, however, do not even contain any good material, so that Hellwig's observations in any case retain their importance.

Hellwig¹ asked a number of independent people what they would say if they were told that an object was in question which was described in these words: 'Longish, dark. One end pointed, but not altogether pointed. The dark end is flat.' This statement had actually been made by a thought-reader. Hellwig received two hundred different answers, only one person answering correctly ('key'). For there are obviously many objects to which this very vague description might to some extent apply.

Hellwig further showed a number of independent people a specimen of writing discussed in the case in which the alleged clairvoyante Frau Gunther-Geffers was prosecuted. He asked them what name was written down. Over twenty different answers

¹ Kosmos (1930), No. 5.

were given, none of them correct. The name written down was alleged to have been meant for 'von Reibnitz'; one person read it as 'Dora Behrens'!

What exactly is the question at issue? The question is one we already raised in discussing spontaneous telepathy: that of coincidence between a fact and a statement concerning it. In other words, we are now concerned with coincidence specifically of content. For temporal coincidence, as in the telepathic communication of a death, does not arise here. The question asked is this: is the resemblance between a fact and the medium's statement concerning it a 'chance' resemblance or is chance excluded? In vague statements the possibility of a chance hit is very great, and consequently one cannot without investigation accept a hit as being necessarily a true one.

Nearly everything that I have experienced with German mediums belongs to this group of all too vague and consequently valueless statements. We saw above (p. 21) that vague statements about 'character' are of no value, and that statements about love, marriage, children, and the like, often have a probability of I in 2. Hence such statements also are without significance.

Rare, out of the way details must be given supernormally before the case, if all the other necessary conditions have been fulfilled, can be accepted as genuine.

The stricter psychical research is in this matter the greater weight will the genuine cases have even if the total number of cases is thereby reduced.

Naturally there always remains the possibility of a difference of opinion in estimating the value of the coincidence in any particular case, but in practice there are many cases that every student accepts – if he knows the literature well, which unfortunately is not always the case!

It may be added to Hellwig's critical remarks that in the case where the alleged supernormal statement 'longish, dark, etc.,' was made, there always remains the possibility that there was a genuinely supernormal 'perception' of a real objective key. All that can be said is that such a case is of no significance in itself. In apparently good cases of the supernormal acquisition of knowledge we often get what may be called schematic-intuitive statements, though of course more precise ones than in the case of the key. Mediums say that they 'saw' something which they did not at once 'understand' and which they consequently interpreted 'intellectually,' thus possibly introducing mistakes. Thus the intuitive schematic form of a statement cannot in itself be regarded as an adequate reason for doubting its genuineness. Here also care will have to be taken; we must naturally not forget that even a good supernormal schematic description will not always be capable of being recognised. For instance, during Wasielewski's investigations the medium once said that she saw him sitting in front of a box, with white and black lines running towards him. Another time she said that she saw him sitting high up, under him a light, on his right and left something like a wall. It

turned out that on the first occasion he was actually sitting at a piano, and on the second occasion cycling through a thick wood. As these activities were not customary with the agent these cases must be regarded as good ones even though the percipient's statements were merely intuitively schematic. In Upton Sinclair's experiments the percipient's remarks go far beyond this, and similarly in the case of the mediums Piper, Leonard, Ossowiecki, etc. The Paris experiments in the 'reading' without contact of sealed letters by the medium Kahn are notable. These tests yielded nothing but hits, but they undoubtedly require to be independently repeated.

Errors of Memory

The agent has further to guard himself against mistakes in regard to his own memory, against what is technically called fausse reconnaissance, and against the déjà vu. It happens only too often in daily life that in listening to a story we imagine that we already knew or learned or experienced it. It is further known that most people remember nothing of the experiences of their early childhood, but that they grasp with such strength what their relations and friends have told them, that they come to believe these experiences and to repeat them to others, perhaps with embroideries, as personal memories. It can similarly happen that in thought-reading the agent may imagine himself, quite wrongly, to have experienced the things the medium tells him. Verification is always necessary in such investigations.

A contrasting phenomenon is presented by the cases in which the medium tells the agent whose (in these cases latent) knowledge he taps something that the agent has completely forgotten and is unable notwithstanding all his efforts to recall, but which is discovered on verification actually to have been a bygone experience of his. In that case, if all the other conditions have been fulfilled, the phenomenon is a 'true' one.

3. PRECAUTIONS IN RELATION TO THE PERCIPIENT

The precautions against deception so far mentioned are those to be observed by the agent, who has, as it were, to be on his guard against himself. The following precautions relate to the percipient or medium. This group of necessary precautions is even more important than the one we have just surveyed, because here conscious or unconscious fraud may be present, and not only error or carelessness, as in the case of the agent.

The first and most general precaution consists in preventing the possibility of the medium acquiring knowledge about the past lives of the persons with whom he may come into contact in the sittings.

The medium might learn something about dead people from gravestones in cemeteries, since most sitters are always glad to hear something about their dead friends. He could run through newspapers, and even letters, could question servants, and so on. The English investigators protect themselves

The English investigators protect themselves against these sources of error by introducing sitters

under false names, and even, as in the cases of Mrs. Piper and Mrs. Leonard, by causing the mediums to be watched by detectives. Nothing suspicious was ever observed in the behaviour of these two mediums. Further, the servants in the house in which the sittings were to be held were previously changed.

'Fishing'

Further precautions are necessary against so-called 'fishing' on the part of the medium.

Mediums often guess about and about, wait for affirmative or negative remarks by the sitter, and even look out, if the sitter is not forewarned (cp. p. 38), for unconscious indications, and then they make statements that seem hopeful, or 'fish' further.

The sitter should therefore be very cautious with affirmative and negative remarks and should exclude the possibility of giving unconscious indications. Such remarks as 'yes' or 'good' should only be made if details of quite overwhelming accuracy are given. Otherwise there is open a very prolific source of deception on the part of the medium. Great care should also be taken in putting questions to the medium. Questions can far too easily have the effect of leading questions and of 'suggesting' answers to the medium, in which case these answers lose all their evidential value.

Hyperesthesia of the Senses

It is conceivable that the medium, even if he cannot see the agent and even if he is in a different

room, may possess so high a degree of auditory hyperesthesia that he involuntarily hears words whispered by the agent. It is known that such hyperesthesia exists in the hypnotic state, which after all is related to the so-called trance.

The sitter must protect himself against this source of error by testing the hypersensibility of the medium, unless the distance separating the medium from the agent is so great as to make such a precaution superfluous.

Obviously, if the medium taps knowledge not actually present in the agent this source of error does not arise.

Errors of Memory

Just as it was found necessary before to adopt a critical attitude towards one's own memory, so here we have to be careful in regard to the possibility of error in regard to the memory of the medium.

There obviously exists the phenomenon of forgetting, even of such complete forgetting as to make all recall impossible. But forgetting often, perhaps always, affects only consciousness, not the subconsciousness – and it is precisely the subconsciousness that is in all probability alone responsible for supernormal statements. We know already from the investigation of the hypnotic state, which in itself has nothing supernormal about it, how much can be forgotten by a subject's consciousness and yet be capable of being recalled in hypnosis.

Thus the medium may quite honestly say that he never knew this or that, and yet he may actually, perhaps in early childhood, have known the fact that is in question and that is now rising into consciousness.

This is particularly true of the languages, said never to have been learned, the emerging of which in parapsychical sittings so often astonishes people. For instance, a medium spoke Hindustani, which he had never learned – but it was found that he had been born in India and had had a Hindustani-speaking ayah.

With Mirabelli, who is said to speak a dozen languages which he never learned, I myself experienced only Italian and Esthonian, alleged to have been spoken through his mouth by spirits. But his parents are of Italian descent and he was accompanied by a young girl from Tallinn. Bauer on the Aramaic of Theresa Neumann, of Konnersreuth, may be compared.¹

The best established phenomenon of this kind appears to be the old-fashioned English of Patience Worth. Walter Prince² is a sufficiently careful investigator to have earned the attacks of the 'believers'; it appears to me that no loopholes are to be found in his critical precautions, and his conclusion is positive.

¹ Article in the Münchener Neueste Nachrichten, 14 December, 1927. ² The Case of Patience Worth (Boston 1927).

4. PRECAUTIONS IN EXPERIMENT

In discussing the precautionary methods required in anticipatory observation it was necessary to touch on those necessary in true parapsychical experiment, so that there is now comparatively little to add. For all the precautions that apply to mere anticipatory observation naturally apply also to true experiment, in which, however, they can be practised even more strictly.

To experiment, in this connection, means for both the agent and the percipient consciously to make the attempt at a given moment to send and receive something specific. Thus both participants are 'active,' and even consciously active, though it is only the percipient who wants to receive. Here telepathy and thought-reading become one.

Comparatively few series of such experiments have been carried out, but these few are good; the experiments of Tischner, Wasielewski, Upton Sinclair, and others belong here, not to mention the various well-known S.P.R. series. The small number of these experiments is no doubt due to the fact that voluntary telepathy simply does not work with most people. As we have already seen, it is in all probability the subconsciousness that produces parapsychical phenomena, so that conscious volition is no more than an *indicium* of the capacities of the subconsciousness. And, in fact, few people possess subconscious supernormal capacities which they can 'bring up' into consciousness.

The distance that separates the agent from the medium in good experiments is in itself an adequate precaution against apparently supernormal but really normal communication by the use of symbols of one kind or another. The same is true of hyperesthesia and of 'fishing.' Distance also excludes the possibility that the medium obtains private information. Errors of memory do not come into question on either side, since the notion transmitted is an actual one; an exception is presented by those few cases in which the percipient makes a wrong statement which represents, as the agent afterwards explains, the idea the latter had at first wanted to transmit and of which he consequently had an image in his consciousness.

The important criterion of coincidence in details, or at least in the general intuitive 'schema,' is present in what we call good cases. Naturally if a 'fish' is received instead of the 'picture of Christ' that was transmitted, this cannot be called a good case, even though the fish is undoubtedly a Christian symbol. Such interpretations are not permissible. Our motto must be 'the stricter the better,' or rather 'only good when strict.' I do not deny that a notion subconsciously received by the percipient may call up an association, and that this association alone may rise to consciousness; but the very vagueness of the so-called 'law of association by similarity and contrast' compels us to be very careful in applying it to our work. It is better to admit too little than too much.

It is hardly necessary to say that it would be very desirable to have a great number of good parapsychical cases of a genuinely experimental kind. Only it should not be thought that parapsychical experiments have been made and that no others are possible when a phenomenon that has the appearance of thought-transference has been obtained in a laboratory by normal means. A good many people have made this mistake: they have assumed that they have 'settled' psychical research when they have carried out experiments which have yielded results very valuable for the control of genuine parapsychical phenomena. In doing so they have 'settled' nothing at all, since those phenomena we regard as genuinely parapsychical take place under quite different but nevertheless adequately controlled conditions.

We have now described what precautions must be taken in the field of parapsychical phenomena before these phenomena can properly be regarded as genuine at all. The emphasis here is on the words 'at all.' It is precisely the object of the investigation to discover whether there is anything supernormal before us at all, whether there is anything not explicable on known and normal lines. But we have not yet entered on what we may call the higher problems, namely, those concerned with the question whether there are different classes of supernormal phenomena or whether all belong to one supernormal type. We have not yet ascertained, in other words, whether it is possible to reduce to a single

class what appear at first sight to be different classes of facts. Hence we do not yet know what phenomena are entitled to rank as genuinely fundamental, in Goethe's sense, and whether there are several such fundamental phenomena or only one.

But before we enter on these higher inquiries it is necessary to add two sections to our investigation of the precautions needed for the establishment as genuine of supernormal phenomena: we have expressly to deprecate both inadequate and exaggerated precautions.

5. INADEQUATE PRECAUTIONS

This section is directed against those people who are all too readily persuaded, people of a kind that is sometimes met with in circles of convinced spiritualists.

In such circles one hears it said that phenomena must not be described as false unless the medium has been caught in flagranti faking them. That was not the case, for instance, in the Berlin sittings with Valiantine – because a solemn undertaking had to be given that no attempt would be made to catch the medium in flagranti, as by suddenly switching on the light.

Now it is quite obviously wrong to insist that fraud cannot be established without an exposure in flagranti. There are such things as indicia: all legal proceedings and all normal scientific investigations are based on them. In the present context we may say that conscious or unconscious dishonesty can

be established with a very high and, in practice, adequate degree of probability if such circumstances were present in an investigation as would be expected if fraud were being practised, and if these circumstances were not suppressed notwithstanding the investigator's express wish. Such circumstances are 'suspicious,' and if they are cumulative the resulting suspicion can be very strong.

Naturally there are very many different degrees of 'suspiciousness,' from a mere doubt as to genuineness, simply because there was a loophole through which fraud might have crept in, to a conviction that it is highly probable that fraud was present.

Even such circumstances as the darkness and the singing general in paraphysical observation belong here: it would at any rate be better if these things were not necessary. But certain more specific conditions weigh much more heavily on the investigator, such as the rule that one's feet must not be stretched out, the refusal to allow the placing of luminous needles or strips at critical points, and many others. When the 'spirits' forbid such things one rightly becomes very distrustful, and if such refusals become common one attains a completely negative conviction. The same would rightly happen if a medium refused to allow himself to be examined.

It is true that we know very little about the conditions governing supernormal happenings. In some respects the 'spirits' are right, as for instance when they require that the medium should be of

tranquil mind, that he should not a priori be treated as a fraud and with contempt, and the like. A poet might very well be incapable of writing in the presence of a committee who continuously observed him in order to discover whether he did not copy his poems from some existing but little-known work; if he could not compose under such conditions it certainly would not mean that on previous occasions he must have plagiarised.

But such considerations have their limits, and the investigator becomes distrustful when certain mediums require or refuse conditions which other very successful and honourable mediums do not require or refuse.

Further, the believers have recently started saying that only experienced psychical researchers should be admitted to sittings; they maintain that if some 'inexperienced young man' expresses himself in a negative sense that proves nothing. It is even proposed that an 'association of mediums' should altogether exclude such young persons.

What do these people mean here by an 'experienced' psychical researcher? It appears to me that in practice the word 'experienced' here always represents 'credulous.' As a matter of fact very little depends here on experience, which may indeed take the form of a dangerous acceptation of the conditions 'customary' with mediums. In any case, competence rapidly to grasp a situation, and a severe critical faculty, are much more important, and it seems to me that 'inexperienced young people'

often possess these two qualities, particularly in psychical research. When it is said of such a 'young man' that he did not know, for instance, that with a certain medium the sitters' legs must not be stretched out if good phenomena are to take place, the assumption is made that the phenomena are in fact 'good,' which is precisely the object of the investigation.

The 'believers' are also very apt to protest against the so-called over-valuation of experiment. Now, we have ourselves said that experiment in the strictest sense of the word is not always necessary, indeed, that it is often excluded in the nature of things. Anticipatory observation with very strict precautions, even simple observation in the case of spontaneous telepathy, can produce positive results. Nevertheless true experiment remains the highest form of investigation, and polemics against it create an impression that can hardly be desired by those who conduct them, namely, that they fear exposures which might disturb their 'beliefs.'

As we have already said, spontaneous observation, except in the case of true telepathy, cannot have a more than quite temporary significance.

6. Exaggerated Suspiciousness

As the previous section was directed against the believers, so now we have to argue against a certain type of sceptic, namely the sceptics at any price (not against the critical sceptics, amongst whom I number myself).

It will perhaps be asked why these arguments are not also directed against the radical negativist, that is, against the man who says that there 'cannot be' supernormal phenomena. But there is no need to argue with such a man, for if he is really radical he considers everything as finally settled, and if he acts logically he does not enter into discussion. But are there really quite convinced 'negativists'? They seem to discuss and 'refute' very readily! Most of them must merely be very severe sceptics, perhaps because they find the subject so complex and difficult that they doubt whether a solution can be found; they always suspect the presence of some unperceived source of error. Such people are not genuinely negativists.

With many sceptics, and of course with radical negativists, if there are such people, their general logical and philosophical outlook naturally plays an important part. They are either true materialists or 'mechanists' in the sense of certain (not all) neo-Kantian Schools. They are usually at once opponents of vitalistic biology and friends of so-called psycho-physical parallelism, which denies the existence of the 'mind' as an independent (empirical) entity, and only recognises 'mental phenomena,' which are alleged to be the mechanism of the brain 'seen from within.'

People logically and philosophically limited in this way can be fundamentally convinced, if they are open-minded, by a demonstration that their attitude is 'dogmatic,' that is, ungrounded. But this must

be done by elucidating the concepts of nature and causality.1

The exaggerated suspiciousness of sceptics in psychical research expresses itself thus:

Supernormal phenomena alleged to be genuine could be fraudulently imitated, and consequently they are all fraudulent; only that which is incapable of being imitated is genuine. Leaving on one side the formal fallaciousness of this conclusion, it must be pointed out that, given complete freedom of conditions, every experiment can be imitated, even in chemistry and physics. But this cannot always be done when the conditions are prescribed. The given conditions are what is essential; and even under the proper conditions the phenomena must actually be imitated and not merely be capable of imitation, to make the falseness of the phenomena probable. It is thus only possible to say that if the conditions are not restricted many phenomena can be imitated; therefore such precautions should be taken in regard to the conditions of the investigation as really to make fraud objectively impossible. This is the attitude we take up ourselves.

It must not be forgotten that in the investigations of psychical research a twofold care is necessary, since at least two persons are in question, as we have already seen (p. 2), the investigator and the medium (as well as the sitters). The investigator can deceive in every sort of investigation, normal as well as supernormal, in chemistry or biology as

¹ Cp. my Ordnungslehre² (1923) pp. 190ff.

well as in psychical research. His honour must always be trusted. Nor has this necessity had evil results: fraud on the part of an investigator in any department of science has occurred on only very rare occasions.

As for the second person, the subject of the investigation, the medium, he must be so controlled by the conditions determined by us that fraud is objectively excluded. It is possible to achieve this, even though it has not yet in a thoroughly satisfactory manner been achieved, at least in the field of paraphysical phenomena.

It is further said that normal scientific observations and experiments, in contrast to those of psychical research, can be repeated at will and are thus verifiable. In the first place, this is not always true; it is not true, for instance, in astronomy and geophysics. And moreover the subjects of normal investigation are often, as for instance in biology, no less 'capricious' than mediums.

Again, it is a fallacy to say that because a medium has cheated once he always cheats. This also is a logically fallacious conclusion. Equally fallacious is the conclusion: this medium has produced nothing to-day, therefore he is fraudulent.

Admittedly we may, nay must, be very careful with a medium once discovered in fraud, and similarly a failure to produce phenomena obliges us, though to a less degree, to be cautious in our interpretations. Under such circumstances we should take particularly strict precautions, but, and here the 'believers' are right, we must not go so far as to

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require that the phenomena must take place under any and every mental and physical condition, as when the medium is treated rudely and given to understand from the beginning that he is regarded as a fraud.

We have ourselves said that all suspicious conditions, among which the degree of light allowed must be included, should be abolished so far as possible. But it is unfortunately still true that we do not know what is possible in this field.

The sceptics further advance the objection that mediums are rare. But good hypnotic subjects are also very rare, and those who suffer from split personalities, to say nothing of madness, are happily still rarer. And yet these things exist and are universally accepted.

It is certainly very desirable that the number of mediums should be increased, and it would be still better if everybody could be made 'mediumistic.' Perhaps this will be possible one day, possibly by employing suggestion or by the use of chemical substances.¹ This does not seem a priori impossible. On the contrary, it appears a priori improbable that there should exist, apart from the known psychological types, two quite fundamentally different kinds of men, normal and mediumistic. Perhaps there is only a quantitative difference between normal people and mediums, possibly one relating to the threshold of consciousness. And this difference can perhaps be levelled.

¹ It is well-known that the Mexican peyotl is alleged to possess such properties.

In general, the principle must further be recognised that in the whole field of science, including psychical research, negative cases never cancel positive ones. Anybody who has done experimental biological work, as I have, knows that a given thing sometimes 'works' and then again does 'not work.'

Of course critical sceptics are entitled to point to the negative cases; but they must never overlook the positive ones and they should never, particularly in popular writings, pick out only negative or inconclusive cases from the whole available material without mentioning the good positive cases.

On the other hand, a good record of an investigation must note everything, whether good or bad. These details may be of particular importance for the study of the detailed conditions necessary for the production of the phenomena, so that it is precisely the negative and uncertain elements that may contribute to scientific progress, just as they do in the normal sciences.

During the course of a discussion at the International Congress of Psychical Research at Athens I said, 'It is better to put aside 99 genuine phenomena because they occurred under inadequate conditions, not absolutely excluding fraud, than to accept a single fraudulent phenomenon as genuine.'

This remark has often been torn out of its context, misquoted (I said 99 phenomena, not 99 mediums), and still oftener misunderstood. In this context

¹ For it is precisely my view that constant fraud must not be deduced from occasional fraud.

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'to put aside' means 'not yet to accept as certain.' It does not necessarily mean 'to brand as fraudulent'; and there is an immense difference between the two definitions. Of course what I saw in Berlin in the Valiantine sittings I put aside in the second sense, and Besterman, Lambert and Prince have with good reason, I think, put aside in the same sense much of what they have seen. But I do not take up this rigorous attitude towards much of what I have seen or know from the literature. All I say is that these phenomena are possibly genuine but that the technique of their investigation was inadequate to make them certain and to justify their incorporation in the canon of scientific data, thus becoming available for the construction of theories. I must unfortunately take up this attitude towards all paraphysical phenomena. For in this field nothing is really certain enough; everywhere there are loopholes in the conditions through which fraud may have entered. This is true even of what are so far the best investigations, those of Schrenck.¹ So for the present I do put aside these phenomena, in the first sense which I gave to this term. Although I am strongly impressed subjectively, I suspend judgment. The experiments of Osty (see p. 28 above), which are being continued, will I hope much abbreviate my period of 'waiting.'

¹ This applies to the experiments with the Schneider brothers; of Eva C. I have grave suspicions. I pass no judgment on Palladino, although I admit that the report of the S.P.R. commission on their experiments in Naples strike one as very convincing (*Proc. S.P.R.*, xxiii.).

It appears to me that the attitude I have described is the only one possible for a man of science, though it is certainly not an agreeable one for him. But the man of science is ever an intellectual ascetic. And science has profited much from this asceticism.

To speak in a quite personal manner: I 'believe,' I 'think,' that there are genuine things amongst those that my scientific conscience compels me as yet to put aside as insufficiently certain. It seems to me that that praiseworthy 'inexperienced young man' in London, who is so little loved by the credulous, Mr. Besterman, holds quite similar views to my own in these matters: he is quite certainly not a negativist, but he is very critical.

There are in fact not two attitudes only in psychical research, a positive and a negative: there is also a third one, the critical attitude. And this is the only one that has any value.

III

THE HIGHER PROBLEMS OF PSYCHICAL RESEARCH

E now enter on the discussion of what we have called the 'higher problems,' with the object of improving the prospect of arriving at reliable decisions regarding them. In doing so we do not as yet enter on any theories of the supernormal, but we do begin to approach them.

The question at issue is still a factual one: what fundamental phenomena occur in the field of psychical research? This question must be answered by means of the results obtained in the course of our observations and experiments. We have to ascertain, therefore, whether the facts oblige us to admit few or many supernormal happenings as genuinely fundamental and not further reducible.

1. GENERAL

First of all we have to establish a principle and to formulate a definition.

Entia non sunt creanda praeter necessitatem – we may translate this scholastic maxim thus: no more than a minimum of fundamental phenomena should be admitted, or perhaps: no phenomenon may be admitted as fundamental if it can in any way be reduced to another or if it represents only a variant of it conditioned by special circumstances. This methodological maxim, which implies the duty of making a very strictly logical analysis of the facts, underlies all science. Wherever science is found there this maxim must be present. In every science the investigator must determine the fundamental phenomena in the field of his researches.

In the field of normal natural science, in biology, for instance, it would be a methodological advantage if mechanism could suffice – but it will not 'work.'

In the field of the mental phenomena of psychical research it would be the simplest solution if the observed phenomena turned out to be only seemingly parapsychical – (assuming that the facts are not fraudulent, for we have already protected ourselves against this possibility) – if the phenomena in question, that is, turned out to be only 'variants' of known forms of perception by man of external objects or of communication between man and man, such as occurs by speech and writing. The theories of radiation and of hyperesthesia, as advocated by Baerwald, would methodologically be the best, for they would only represent new 'variants' of known things, but these also are, as we shall see, impossible.

If the best methodological view does not work, then that which is methodologically least bad from the point of view of the law of economy or parsimony of hypothesis must be accepted.

2. THE METAGNOME

In the second place we must definitely clarify the concept of the 'medium' or 'metagnome,' to use the apt word introduced by Boirac.

Words are certainly not very important here; but we prefer the word 'metagnome,' for 'medium' still retains a flavour of its spiritualistic origin: it was originally used for the person who acted as 'medium' between the world of spirits and our own.

We define a metagnome, in a quite general manner, as a person from whom supernormal phenomena originate or in express relation to whom these phenomena occur; he is thus essential for psychical research.

Physical phenomena, unless there are 'pure' hauntings, occur when a metagnome¹ is present; we leave on one side for the moment the exact rôle he plays.

The mental phenomena are always at bottom spoken or written statements made by a given person. Thus the person making the supernormal statements is the metagnome, irrespective of whether the agent from whom he obtains the content of his communication is a living man or, as the spiritualists claim, sometimes a dead one. In each case a certain person makes a supernormal statement – and such a person is called a metagnome. At bottom his statements, if they are made verbally, are due to specific movements of the mouth and larynx which create sound

¹ It will be said that the word meta-'gnome' is not suitable for physical phenomena. But this is hardly worth troubling about. For the rest, we do not even trouble ourselves with the fact that literally the word 'metagnome' means 'a change of mind' in Greek!

waves, which are then heard. If it is written down the statement is made by movements of the hand which produce letters on paper, which are then seen.

Both kinds of movements are then interpreted psychically by analogy: we say that the metagnome has made a statement about his (supernormally acquired) mental content. Even in a normal context we acquire knowledge of 'another' as a conscious entity only in this indirect manner. Each individual knows directly what it means to experience and to know only of and in himself.

This is a quite objective and, to use the American term, even 'behaviouristic' way of looking at the matter. But to begin with this is the only possible way: any other would be prematurely 'theoretical.'

Thus a metagnome is a person to whom, whatever the manner in which this occurs, supernormal phenomena are empirically related, that is in relation to whom alone they can be empirically observed.

3. THE SPECIFIC PROBLEMS

Before entering on the examination of the specific problems a few further introductory words are required.

We were neither concerned hitherto with factual problems as such, nor shall we now be concerned with them. It is only the procedure for ensuring the reality of the phenomena that was and is being investigated. How must an investigation be conducted in order to demonstrate the presence of

something really supernormal? That was the question so far considered. How must we proceed in order to determine with certainty the higher question as to which phenomena are to be regarded as fundamental? This is the question we now have to answer.

We certainly introduced examples of investigations which in our opinion were reliable, and we shall also introduce examples in the following discussion. It may be said that our acceptance of any particular case as fully 'guaranteed' is at the same time an acceptance of the reality of the phenomenon illustrated by the example. But the approval of an example illustrating a particular phenomenon implies primarily only that this is how a reliable investigation should look. The acceptance of the fact as such still remains a problem in itself, and one that can only be settled after the discussion of the necessary precautions in regard to the higher problems.

a. DEFINITIONS

Before we enter on details it appears necessary carefully to define and to differentiate from each other those supernormal happenings which in our opinion have passed the prescribed tests and which may rank as facts. In doing so we shall have to amplify and make more precise much that has already been referred to in a more or less provisional manner.¹

¹ Cp. e.g. p. 18, above.

The conceptual definitions and differentiations which we are about to make will, however, be restricted to the superficial aspects of the facts, to their phenomenology, that is, to the characteristics which at first sight appear to distinguish them from other facts. It is precisely the object of investigations of the later sections of this chapter to ascertain whether the differentiations so obtained in fact hold good on more profound analysis. From this point of view the present section still remains in the first stage of our inquiry.

The clearest division of the phenomena is into the psychical and the physical ones. We thus have two main groups of facts before us. Let us now attempt conceptually to define them.

In the purely psychical group of supernormal things the phenomenon in question is always one in which a person acquires knowledge in a supernormal manner. In this context 'knowledge' remains the same undefinable something that it is in normal life, and the 'acquisition of knowledge' similarly. It is the manner alone of the acquisition that constitutes the supernormal element.

In general the person who acquires knowledge supernormally is named the receiver or percipient.

If the supernormal acquisition of knowledge by the percipient relates to objective facts in nature, then we generally speak of *clairvoyance*. We speak of spatial clairvoyance when the thing supernormally acquired is only spatially separated from the percipient; of retrocognition when situations no

longer existing, in the past, are in question; and of precognition or prophecy when events in the future are acquired.

Next to this first subgroup within the first great group of the phenomena of psychical research, the psychical one, there stands a second subgroup. In this one there is not in question the acquisition of knowledge about an objective situation in nature in the present, past or future, but knowledge of the mental contents of other persons.

Only now, beside the receiver or percipient, does there enter on the scene the giver or agent, he who 'gives' the content of his mental experience to the percipient. There are two subgroups and one mixed group of such phenomena. In telepathy the agent gives his mental content actively, whether unconsciously or consciously, while the percipient 'receives' in a purely passive manner. In thoughtreading, on the contrary, the percipient is active, he wants, even if only unconsciously, to receive; the agent, who gives his knowledge, his mental content (I purposely do not say the 'content of his consciousness'), here plays a wholly passive part.

In experiment both the agent and the percipient can be active: the former wants to give, the latter wants to receive. Successful experiments, such as those of Wasielewski and Sinclair, are rare, perhaps because it is precisely the conscious part of the mind that has a disturbing influence.

With clairvoyance (in its three forms), telepathy, and thought-reading, are exhausted what appear

superficially to be the different kinds of purely psychical supernormal happenings, those in which the manner of the acquisition of knowledge constitutes the supernormal element.

The psychophysical group of supernormal happenings is, as we know, much less securely established than the purely psychical one.

Telekineses, materialisations, hauntings, apports – so far as these things can reasonably be regarded as even probably real – will at first sight rank as different phenomena. Hauntings would have to be divided into those related to places and persons.

A special psychophysical phenomenon, and this time a well-established one, is so-called psychometry, even if it is usually employed for the transference of knowledge, that is, for purely psychical happenings.

b. Telepathy and Thought-Reading

Telepathy alone, as we know, can be established even by spontaneous observation and can at the same time come into evidence only in that way. It is also the phenomenon that gave rise to the creation of a really scientific psychical research, as inaugurated by the Society for Psychical Research and its standard publication *Phantasms of the Living*. There also exists consciously produced experimental telepathy.

It will be suggested in this section that telepathy is in fact a fundamental empirical phenomenon, not explicable by radiation or the like, and this conclusion will be substantiated when we come to the

highest theoretical aspect of the problem. The question therefore arises whether there is any other fundamental phenomenon at all of a purely psychical kind.

Thought-reading, spatial clairvoyance, retrocognition, prophecy, and in addition so-called psychometry, a special and partly physical modification of these things, are provisionally assumed to be irreducible.

Thought-reading is clearly related to telepathy, even if logical propriety requires them to be conceptually distinguished in the way that we have done, since in telepathy an active, though admittedly as a rule unconscious, agent and, at any rate in all 'spontaneous' cases, a passive percipient are in question, whereas in thought-reading the agent is passive and the percipient actively 'wants,' even though only unconsciously, to tap the mind of the agent. In genuinely experimental cases both sides can be active.

Nevertheless all these happenings are similar in that all of them present the transference of mental states from mind to mind. In each case one mind acquires in a supernormal manner the content of another mind, a content that is sometimes actual and sometimes latent.

We are now in a position, giving the word 'knowledge' an extended meaning, collectively to describe telepathy and thought-reading as the acquisition of the mental content of another without the intermediary of the organs of sense.

c. Is Clairvoyance a Fundamental Phenomenon?

We must now ask ourselves whether so-called clairvoyance, that is, the supernormal acquisition of knowledge about objective concrete situations in nature, hence not of the mental states of others, is rightly to be ranked as a fundamental phenomenon. We have to ask whether this phenomenon cannot finally be traced back to a transference of knowledge without the intermediary of the senses, thus being only apparently a separate kind of happening. How can we protect ourselves, and this is the actual question before us, against wrongly accepting as fundamental a phenomenon that actually is not fundamental; or, from the opposite point of view, how can we establish clairvoyance as a fundamental phenomenon by means of observation or experiment?

The solution of this problem is very difficult from the outset, since obviously very many objective situations in the world are known or have been known by somebody. It is thus possible that in a case of apparent direct clairvoyance the knowledge supernormally acquired by the metagnome may in fact originate from the mental content of some being possessing this knowledge. In that case the phenomenon would not of course be one of clairvoyance. At the same time there is the possibility that the being giving the knowledge may not be numbered among living people, a possibility which must not be rejected a priori in view of our later theoretical

discussion.¹ In order to demonstrate that clairvoyance is really a fundamental phenomenon it is necessary to guard against every a priori conceivable form of transference of knowledge²; this of course refers only to spatial clairvoyance and to retrocognition, not to precognition, which will be discussed separately.

The reading of sealed letters obviously proves nothing if the writer of the letter knows its contents and is present, there being only one specific letter in question. But even if he is absent the letter may act psychometrically, a subject to which we shall have to return; the letter would thus merely be an object acting as a sort of agent for the transference of knowledge. In that case we should not be confronted with true clairvoyance but with a new fundamental phenomenon, psychometry, additional to the mere transference of knowledge.

This may have happened in the famous Ossowiecki case; a letter was written in London, it was several times enclosed and sealed, and it was handed

¹ So-called spiritualism is not the only possibility that should be kept in mind here, for, as we shall see, there are other parapsychological theories involving 'beings' who are not living persons.

² Pagenstecher (Transactions of the Fourth International Congress for Psychical Research, Athens, 1930, p. 145) inclines, on the contrary, but without altogether disposing of thought-transference, to attribute to clairvoyance many cases of alleged thought-transference, namely, those in which the agent concentrates by looking at an object and tries to transmit the mental image of it. The percipient is here supposed clairvoyantly to 'perceive' the retinal image of the agent. Pagenstecher explains in this way the fact that in some cases the percipient obtains the transmitted mental image in an inverted form. These suggestions for the discussion of problems of higher order are certainly valuable.

to Schrenck-Notzing by an Englishman who did not know its contents; it was then read correctly in Warsaw by Ossowiecki. The criterion of coincidence of content (see p. 16 above) was present, and the occurrence may thus in principle be regarded as supernormal: 'a wine bottle badly drawn at an angle in the left-hand bottom corner' is not a thing that could be guessed. But a merely psychometrically induced transference of knowledge from the original writer cannot altogether be excluded here, even though it is no doubt very little probable.

We have already referred to the similar experiments conducted in Paris with the metagnome Kahn, experiments which certainly require to be repeated, but the genuinely supernormal nature of which appears probable if the conditions of the investigation were really described quite correctly. In these experiments another element was present. Six letters written by persons who were present were used, lying in a bowl; Kahn touched only one of them, but nevertheless correctly indicated the contents of all of them in every detail, referring each letter to its writer. The contents of the letters could not have been guessed. One of them was written in German ('Gegen Dummheit kämpfen Götter selbst vergebens'); one of them, it is important to note, was written in Hebrew with Latin letters, on which Kahn said that he did not 'understand' it, though he correctly indicated the order of the letters. This is an example of the statements so often made by clairvoyants that they seem to 'perceive' with

their senses, but that the matter so acquired is not 'understood' without intellectual interpretation.

In this case clairvoyance is certainly probable, though not yet absolutely certain, since psychometric transference of knowledge is still conceivable.

In Wasielewski's experiments there are also some cases (piano, bicycle, cp. p. 43 above) in which clairvoyance is probable. We shall have to discuss these cases separately, for there exists an unusual complication in them. The position is doubtful in regard to the case of the Indian vase: here the metagnome saw the one-time owner, a deceased captain, whose connection with the vase was quite unknown to Wasielewski; moreover she saw him in unusual clothing. This case is certainly psychometric; but in view of its unusual nature it remains doubtful whether the phenomenon induced by the psychometric object was true clairvoyance into the past or thought-transference (Wasielewski's aunt knew of the connection between the captain and the vase).

Swedenborg's well-known vision, if it took place at all, as now seems doubtful, is of course not conclusive: many people must have seen the fire in Stockholm.

Osty's supernormal medical diagnoses, which are in part remarkable, are also not quite conclusive, for it might be said that the patients knew subconsciously of their illnesses.

If sealed solutions of various chemical substances, colourless and without odour, were presented by the

investigator without his knowing which solution was present in each case, and if they were correctly described by the metagnome, then the position would be much more definite. For these objects refer psychometrically always to the same person, namely, to him who prepared them all, and yet each time something different and correct was said.

Pagenstecher's famous psychometrical experiments1 are also not quite conclusive. However, the persons who knew directly of the real circumstances connected with the objects in question were in many cases no longer living. In these cases, therefore, the direct knowledge of a living person could not have been tapped; an example is the experiment with the bottle thrown into the sea by a person who lost his life in a shipwreck (leaving on one side the experiments in which distant epochs of prehistory were seen). In the case of the bottle, however, living people knew that it had been fished up near the Azores and knew the Spanish letter in it. It is therefore possible that their knowledge may have been psychometrically tapped and then dramatised by the metagnome. And moreover we cannot restrict such possibilities to living subjects only; we must reserve this question for our theoretical discussion.

Notwithstanding all these considerations clairvoyance may here be regarded as on the whole probable;

¹ Aussersinnliche Wahrnehmung (1924); Die Geheimnisse der Psychometrie (1928). See further Zeitschrift für Parapsychologie (1928), pp. 193ff.

in so doing our neutral 'behaviouristic' definition of the metagnome (see p. 65 above) should be remembered, and theories, whether spiritualistic or not, should not yet be introduced. Defined in a neutral manner the clairvoyant is a person who makes correct statements about objective natural situations not within the reach of his senses and without it having been possible for him to have acquired this knowledge by means of transference from the actual or latent mental contents of other beings.

On the basis of this cautious objective definition clairvoyance may be regarded with some probability as present in the experiments of Pagenstecher. What the nature of its mechanism may be is of course quite another question, one of highest degree, if we may put it in that way, and thus one with which we are not yet concerned.

Besterman¹ has recently reported on the results of a trance sitting for which the admission of true clairvoyance appears at any rate less artificial than a tracing back of them to thought-reading and telepathy. The interior and exterior of a house were described by the metagnome in a manner correct in nearly all its details, without either the metagnome or the persons present at the sitting ever having seen the house. Nor, on the other hand, had the inhabitants of the house ever had sittings with the metagnome. If clairvoyance is not admitted here as the basic phenomenon then exceedingly complicated

¹ Proceedings of the Society for Psychical Research (1932), xl. 152ff.

elaborations of transference of knowledge would have to be worked out.

Let us now see how an experiment should be arranged if it is desired to obtain a supernormal happening of a mental kind which, behaviouristically considered, that is, on the basis of human 'actions,' could without reserve and with certainty be regarded as a case of clairvoyance incapable of being reduced to one of transference of knowledge from another subject possessing the knowledge.

It would in the first place be necessary to be certain that no living person actually or latently knows or knew¹ the matter contained in the supernormal statement. This of course implies, since otherwise the accuracy of the statement would be unverifiable, that after the event investigations of one kind or another, not of course directed to the knowledge of human beings, established the truth of the supernormal statement. Whether the statement is induced psychometrically or not is irrelevant for its validity as a case of clairvoyance. In the cases of seeming clairvoyance (in a behaviouristic sense) so far considered, it will have been seen that there has always been a psychometrical intermediary. The vision of the accident in Sydney Harbour might be added, though this case is not of good evidential standing. Here a young man falling into the water from a boat was killed and mutilated by a shark; the metagnome made this statement holding in her

 $^{^{\}mathbf{1}}$ The words 'or knew' are necessary in view of our later theoretical discussion.

hand an object which had been the property of the dead man. Some time later a shark was captured, in its stomach being found the remains of the young man's clothing. In this case the tapping of the mind of a living person is certainly out of the question. Can it indeed be supposed that any 'being' possessed the knowledge?

If psychometry is accepted then the right procedure would be to hand to the medium objects the history of which neither is nor has been known by anybody, and then indirectly to test the truth of the statements made.

Letters written by persons long since dead, which appear at first sight to be appropriate, would not in fact be quite conclusive subjects for investigation: for obviously somebody knew the contents of them.

The frequently alleged supernormal description of the whereabouts of stolen objects or murdered persons cannot rank as conclusive cases of true clairvoyance if the thief or murderer knows, or, if he has died in the meanwhile, knew the spot. The case is different if the person thought by the criminal to have been murdered nevertheless remained alive for a short time and dragged himself to another place, where he then died, and if the real place of death and the position of the corpse both were not and could not have been known to the murderer, and if these details are then correctly given. Even then, however, there is one being who knew the facts. It would thus be necessary for some passive changes to have taken place in the corpse.

These various considerations may be regarded as exaggerated, but they cannot be ignored if it is desired to established true clairvoyance by direct experiment. Notwithstanding all these difficulties it seems to me that clairvoyance exists as a fundamental phenomenon.

Certain cases of telepathy appear to me to comprise more than this name indicates according to our definition. For instance, there are the cases in which the percipient is as it were 'called' by the agent, who is in great fear or danger of death, and in which the percipient 'sees' the agent clearly, distinctly and correctly in many details, as of clothing or hair, details which are totally different from what the percipient expected on the ground of his existing knowledge.

In such cases the agent who is in danger of death quite certainly does not 'think' of his dress, beard and surroundings, even subconsciously; and other people could not have known, at any rate in many cases, of various details of the surroundings, as in the case of a wound or of an accident, and thus could not have acted as secondary telepathic agents.

We shall find such cases very important for our theoretical discussion. They certainly appear to us to suggest that to telepathy properly speaking there must be added a supernormal apprehension of situations. At any rate, they can be attributed to the acquisition of the mental contents of the others, if at all, only by giving this notion a very artificial extension. I do not see why the additional phenomenon

should not be called clairvoyance. And if there exists this kind of clairvoyance, connected with telepathy, why should there not exist other forms of the phenomenon? For numerous spontaneous cases unconnected with telepathy have been reported.

Here we must return, among the experimental cases, to some of Wasielewski's material (cp. p. 43 above). If the metagnome saw him at the appointed hour at his piano or on his bicycle (both in a schematic form!), then it would appear as if Wasielewski had merely 'called' her and that she then 'saw.' For he obviously did not 'think' of the intuitive picture representing him!

I blame nobody who finds the considerations put forward in this section artificial. Why do we not simply say that clairvoyance exists with great probability as a fundamental phenomenon additional to thought-transference and apart from the lastmentioned unusual form connected with telepathy? We do not say this because we consider that the greatest possible strictness should govern the admission of genuinely fundamental phenomena. So long as a phenomenon can be reduced to another it must be so reduced even though only hypothetically. The law of economy of hypothesis enjoins this procedure.

Some readers will also have asked themselves with surprise why the possibility of transference of knowledge from beings other than living persons has been introduced, since there are no such subjects. But here we are a little more careful methodologically; we say that we do not know, for the present at any rate, whether there exist such beings or not; perhaps after all there do. Certainly some of the theories later to be discussed, and not only so-called 'spiritualism,' maintain this in one form or another.

If we had excluded this extension of the possibilities, which is no doubt disliked by many, we should certainly have been confronted with a simpler problem. Many phenomena described as clairvoyant are certainly with very great probability incapable of being traced back to transference of knowledge from living people, quite apart from the cases connected with telepathy. He who regards only transference of knowledge from the living as a possibility to which alleged clairvoyance can perhaps be reduced, that is, who defines clairvoyance as the supernormal acquisition of knowledge not reducible to transference of knowledge from the living, is entitled to say that it is highly probable that such clairvoyance exists.

'Positivists' will take up this attitude and will say that our introduction of the possibility that there may be non-living persons possessing the knowledge in question is too theoretical. I will not quarrel with them, although I myself do not regard the bringing forward of a possibility as being strictly a theoretical procedure. For a theory introduces a possibility, even if only a hypothetical one, as a reality, in the empirical sense of the word; and we have not done this in the present section.

¹ The reader will remember William James's 'cosmic memory.'

d. Prophecy

Clairvoyance into the future is called prophecy. Can prophecy rank as a fundamental phenomenon? It certainly cannot be reduced to thought-transference in the form of a tapping of the mental content of another, except as a quite specific hypothesis, to which we shall have to return later. But can this phenomenon be traced back to other forms of the transference of mental states between living minds?

We exclude, as having already been disposed of, chance or quite vague coincidence between the statement and the fact. We assume for our present purpose that there exist real cases of prophecy, that is, statements, perhaps based on dreams, about the future, which are then verified by the course of events. Could this be traced back to some form of happening already known in the field of parapsychology? That the content of the prophecy must be recorded before its verification and not merely spoken of afterwards as a thing said to have happened, does not need to be repeated, since the precautions necessary to establish the general validity of the phenomenon have already been discussed (cp. p. 16 above).

When an individual is personally given the prophecy that he will experience something quite specific, not, that is, something of the order of a marriage, and when the future event so 'sensed' depends on him, then there is the possibility that he

will perform by suggestion that which was prophesied to him. In that case we should not be confronted with anything supernormal but merely with a fact already known to students of suggestion. 'Prophecy' can in this way lead to suicide and even to the dying of a normal death at a fixed time, for it is with subconscious mental states that we have to count. A case is known in which a man died after it had been suggested to him that his artery had been opened: actually he had been given only quite a small cut and water of the temperature of blood had been poured on him.

Not only suggestion from others but also self-suggestion can produce such results. For instance, somebody dreams that he falls ill or even dies. Quite apart from the possibility that his subconsciousness may have recognised the first trace of the illness, it is quite conceivable that the dream may produce the illness or even the death by autosuggestion.

There are also other non-prophetic ways in which prophecies can be fulfilled. There is, for instance, this possibility, contrary to that just described, which leaves the supernormal nature of the happening unaffected, though it would be no prophecy: the 'will' of a person may be known supernormally, or may be influenced telepathically. It appears from the researches of Richet and Janet that some sort of telepathic influencing of the will really exists. So take care!

If clairvoyance in the strict sense of the word is admitted as a fundamental phenomenon, then

certain cases of alleged prophecy, certainly not numerous, could be traced back to it. A railway collision would be easy to prophesy if one could supernormally see that two trains, mutually invisible owing to a curve in the permanent way, are approaching each other on the same line.

Tanagra's 'psychobolia' is based on a far too

Tanagra's 'psychobolia' is based on a far too hypothetical assumption, namely, the supernormal influence of given persons on objective happenings – analogically to the so-called 'evil eye.' According to him prophesied happenings are actually produced in that way and are thus easily foretold by the prophet; true prophecy would therefore not be present at all. If this possibility were really present further precautions would certainly be necessary – though hardly any would be practicable!

Leaving psychobolia and its highly problematical suggestions on one side, it is obvious that true prophecy could only be accepted with certainty if there exist cases which are not explicable clair-voyantly and which could not have been produced by the conscious or unconscious activity of the subject of the prophecy. Only then in fact could clairvoyance and suggestive and telepathic influence be excluded with certainty. The happenings prophesied would have to be happenings coming as it were from outside and the causality of which was not yet perceptible at the time of the prophecy, that not yet perceptible at the time of the prophecy, that is, an accident or similar occurrence. Even here it must be added that the accident must not be dependent on the will, whether conscious or unconscious,

of any human being. If it was prophesied to a person that his house would be burnt, that he would be robbed, or that he would be murdered, then the prophet could have telepathically influenced the will of the incendiary, thief or murderer.

It is not proposed to inquire here whether there really exist quite reliable cases of true prophecy. Richet¹ has published some apparently good ones. And Dunne's ingenious book,² in which he claims that people experience almost every night true prophetic dreams in which even small details of the immediate future are foreseen, may be referred to. Verification and continuation of these results are much to be desired.³

It is hardly necessary to add that in order to make it possible to admit true telepathy, coincidence of content must be present and even in considerable detail.

True prophecy would naturally be a new fundamental phenomenon additional to telepathy, thought-reading and clairvoyance.

e. Psychometry

Last but not least of fundamental phenomena in the mental field of psychical research is psychometry. We purposely retain this quite unsuitable name (clearly nothing at all is being 'measured' here) since

¹ L'avenir et la premonition (1932). ² An Experiment with Time (1929).

³ This has quite recently been done by Besterman, who comes to a conclusion adverse to Dunne's claims; see *Proc. S.P.R.* (1933), xli. 186ff. – Tr.

it has definitely become naturalised. We do not wish to encumber our young science with a super-fluous terminology. The word psychometry is used for the well evidenced phenomenon in which supernormal statements on the part of a metagnome are only made, or if already made, are much improved, if he can touch or at least see an article which belongs, or if he is dead, belonged, to a given person. Such an article is called the psychometric object.¹

No unprejudiced observer can have any doubt that this fact exists. It is another question whether it must exist. If so it would imply a new fundamental phenomenon; whereas otherwise the use of an object might be due only to a habit or an autosuggestion on the part of the medium, thus being of no essential significance.

The best English metagnomes and Forthuny produce phenomena of supernormal thought-reading without the use of a psychometric object. This would appear at first sight to tell against the admission of psychometry as of real significance. But is not a psychometrical object, in an extended sense of the word, nevertheless present in the case of those mediums? This may be so in so far as human beings are present, and even those to whom the information supernormally given is in some way related. If this is the case we could say that a 'psychometrical' object must be present for the

¹ So-called 'graphology' must in some cases be more than its name indicates. I have myself experienced statements by 'graphologists' which went appreciably beyond what may be expected from the interpretation of handwriting alone.

production of supernormal statements but that this object can be a human being.¹

This view appears to us to correspond to the facts. But if it is true it would not actually imply a new fundamental phenomenon; it would only suggest that the notion of the 'supernormal transference of knowledge,' a fundamental phenomenon we have already admitted, would have to be somewhat amplified. The true fundamental phenomenon would now have to be described as the supernormal transference of knowledge in connection with the normal presence of some material object, though this description would not apply to all cases of transference of knowledge, since it is obvious that in spontaneous telepathy, in contrast to thought-reading, a psychometric object is never present.

Difficulties admittedly remain. If the knowledge of an absent person is tapped it could always be said that one of those present is connected with that person and thus serves as the psychometric object. But this can hardly be suggested when the information tapped from the object in question is known to no living person. But let us postpone the consideration of such cases.

With this we conclude the discussion of the higher problems, that is, those preparatory to the discussion of the highest, theoretical ones, so far as the mental phenomena are concerned; in other words, we have now set out the precautions that

¹ These reflections have already been made by J. A. Hill, New Evidences in Psychical Research (1911).

must be taken before any supposed phenomenon is accepted as fundamental. Before we proceed to theory we must perform the same task for the physical phenomena of psychical research.

f. Physical Phenomena

In some respects our task here is easier, in others more difficult. It is more difficult because from the purely factual point of view everything is here much less certain than it is in the field of the mental phenomena of psychical research. There is an appreciable number of investigators perfectly convinced of the reality of the mental phenomena and even of the truth of the spiritualistic hypothesis, who nevertheless admit nothing or at most very little of the physical phenomena. How are fundamental phenomena to be formulated when the facts themselves are so uncertain? The whole problem now under discussion, which, as we have repeatedly pointed out, is the problem not of the facts themselves but of the various types of precautions necessary in studying them, can obviously be approached here only with the use of an emphatic 'if.' That is, we can only ask what are fundamental physical phenomena and how far we can be certain that there are not as many fundamental phenomena as there appear to be at first sight, if all the things alleged to have been directly observed exist at all.

As we know, the phenomena in question are the following: telekineses, that is, movements of objects without indirect or direct human contact; levitations,

that is, the raising of a human being in a manner contrary to the law of gravitation; materialisations, that is, structures such as hands, fingers, or even heads made of an indeterminate material, in the neighbourhood of a human being: phantoms, that is, whole figures which form themselves independently of the presence of a human being; apports, that is, the displacement of an object without its describing a fixed trajectory through space; the direct voice; perhaps a few more phenomena such as raps, scratches on objects, and so on; finally, so-called hauntings.

We have already discussed the highly questionable reality of these things in themselves (see p. 22 above).

In regard to the value as fundamental phenomena of individual groups of these alleged facts, we must first of all exclude a considerable number of reported cases of haunting, quite apart from those fraudulently produced, of which we shall say nothing more.

The cases of haunting here referred to are the merely subjective ones.¹ If such visual or auditory phenomena are only once experienced by any person in an hallucinatory form, then they can perhaps be explained telepathically. But if they are repeatedly experienced in the same place by the same person or, still better, by different mutually independent persons who have not been influenced by suggestion

¹ J. A. Hill, New Evidences in Psychical Research (1911), p. 135, describes the case of a man who, without his glasses, saw forms which he regarded as objective, but who could otherwise only see with the help of very strong glasses—a fact which excludes the possibility that the phenomena were objective.

or in any other way, they then would have to be transferred to the department of psychometry and would thus not represent a new fundamental phenomenon. A room or the like would then have to rank as the psychometric object. For the rest, it is very questionable whether there occur subjective hauntings of this place-bound kind; hence we need not linger over the objection made by Mattiesen (in a somewhat different context) that if the hypothesis of psychometry is accepted here it would be remarkable that people who have never before possessed the faculty should suddenly become clairvoyantly psychometric in a given place.

Some other paraphysical phenomena could perhaps be related to certain of the known normal effects of suggestion, though they would not even then lose the supernormal value of certain elements in them. I am thinking of Besterman's report that questions put telepathically were answered by red marks on the body of a medium. It is known that inflammations, the arresting of bleeding, and many other physiological effects can be produced by hetero- and auto-suggestion. These effects often go very far (Therese Neumann, of Konnersreuth). In the case mentioned there has to be added to the suggestion the fact of its telepathic induction, a phenomenon already known in the field of psychical research. Thus a new physical fundamental phenomenon is not before us.

It is clear, however, that the rest of the alleged phenomena in the physical field cannot be disposed

of in these two ways. But they can perhaps be classified into few groups of fundamental phenomena.

I am thinking here of telekineses, levitations, raps, materialisations connected with the body of a metagnome, photographable hauntings in the presence of a supernormally endowed person, and scratches or similar marks obtained on objects under the same condition.

All these things (granting their reality!) could be traced back to the single fundamental phenomenon of materialisation connected with the body of a paraphysically endowed person, and they are in fact usually viewed in this way. The assumption is that the supernormally endowed person cannot only 'materialise' apparitions as true materialisations but can also produce rigid invisible structures with which to pull, knock, scratch, and so on.

The essential element in this group of facts, which is in this way reduced to a single fundamental one, is the fact that it is expressly related to the presence of a specific paraphysically endowed person, in connection with whom, as we have said, the phenomena take place.

Could the same be true of so-called 'ghosts' and of spontaneous objective photographable¹ hauntings, admitting the highly questionable nature of these things? Or must something quite new be accepted as a fundamental fact in the field of paraphysical phenomena?

¹ If audible phenomena are in question their objectivity must of course be tested with a sound-recording apparatus.

We are concerned in this section, to say it once more, only with problems of second degree, and not yet with theory. Our question therefore is merely whether there are quite reliable methods enabling us to come to a decision in regard to one of the various factual alternatives that are a priori possible. Such a decision can certainly be arrived at whether or not it were established that the phenomena are dependent on the presence of a specific person.

If such a relation really exists we should have nothing new before us. It would in fact be merely said that the person in question, he on whose presence the haunting depends, is a 'physical medium,' which would certainly be strange, as Mattiesen rightly says, if he had never before shown himself as such. But in that case it could still be assumed that the place of the haunting is psychometrically 'charged' and that the person in question has a certain mediumistic faculty which, however, only finds expression in suitable 'charged' places.

On the other hand, if the phenomena are not dependent on a specific person, haunting would certainly represent a true fundamental phenomenon. For, as Mattiesen again has observed, it would otherwise have to be assumed that a haunted place makes every individual physically mediumistic for as long as he stays in it (though not clairvoyantly mediumistic, as in the previously discussed case of subjective hauntings). This hypothesis would be very forced, and hardly deserves to prevent the admission

¹ Zeitschrift für Parapsychologie (1930).

of objective hauntings as a fundamental phenomenon. There have also to be added the phenomena that Mattiesen calls 'successional-collective' and 'stereoscopically collective' hauntings, that is those (if we accept them as demonstrated) in which the apparition is seen by the eye-witnesses in the perspective appropriate to each of them; that is, each of them sees it differently but 'correctly' from his own position in space and at successive moments in time.

In fact, the phenomena of haunting, the reality of which Walter Prince has made probable, are not dependent on the presence or proximity of a specific person.

At the same time the most important task in this whole field still remains that of verification in the first degree, that is, the task of establishing in a very strict manner, excluding all possibilities of deception, whether these many alleged things actually exist at all. We have already spoken of this.

g. The Immediate Tasks of Psychical Research

We have already pointed out (p. 24 above) how important it would be if the number of metagnomes could be increased, whether by suggestive or chemical means. This does not appear a priori impossible, for it is surely less likely that 'normal' people and metagnomes form two quite different species of men. It is more probable that the real difference consists of variations in the so-called threshold of consciousness, so that what remains in the deepest subconsciousness of normal people rises

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into consciousness in metagnomes or, when they are able to express their supernormal faculties only in trance, emerges in their hypnotic state in such a way as to be capable of being reproduced in speech or writing. For what remains in the depths of the subconsciousness obviously cannot as it were discharge itself by finding outward expression.

It is so important to increase the number of metagnomes because only in that way can the material available for investigation become greater. And this is urgently necessary: natural mediums are very rare.

And there remain very many special problems for investigation, even if the most general ones in the mental field have already been determined, problems the discussion of which can alone take us further in the region of theory. I am not thinking here at all of the question we discussed in the foregoing section, as to what phenomena actually are and are not fundamental. I am thinking of what the English investigators describe as the problems of modus operandi. I will illustrate this problem by a few examples.

For one thing the inner and outer conditions under which supernormal phenomena take place must be investigated on a carefully comparative method. In doing so the necessary and at the same time adequate conditions must be especially emphasised and separated from the as it were accessory conditions, which perhaps vary from subject to subject.

We actually know only that spontaneous telepathy generally, though not always, necessitates an

emotional link between the agent and the percipient. We know also that for the successful investigation of thought-reading a certain 'mental calm' on the part of the percipient, who plays the active part here (see p. 69 above), is a prerequisite, so that exaggerated distrust, especially if it expresses itself in rudeness or contempt, really can disturb.

The so-called forming of a chain is certainly not necessary for mental phenomena; is it necessary for physical ones, so far as they are genuine? It was not practised in what are in fact the most successful investigations (Mrs. Piper, Mrs. Leonard, etc.).

So far as the general mental states of the agent and percipient are concerned, we must separately consider spontaneous telepathy, consciously experimental telepathy and thought-reading.

In thought-tapping the active percipient, the medium, is or is not in trance; he requires or does not requite a psychometric object; the direct proximity of an agent, here passive throughout, whose body may then itself be the necessary psychometric object, is or is not required. It will be seen to how considerable an extent this continual 'or is not' characterises our ignorance.

Again, in thought-tapping the agent can 'give' fragments of what is actually conscious in him, that is, of what he is thinking, or he can give things forgotten but capable of being remembered, or he can give things forgotten and in no way capable of being brought to memory. He can be present or far absent.

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So far as the agent is concerned matters could perhaps be simplified by assuming that the supernormally acquired knowledge of the metagnome is always taken from the subconsciousness of the agent, and that the information which is actually conscious has also its basis in the subconsciousness. In regard to the percipient it might be assumed that although apparently fully awake he is actually in trance at the moment of the supernormal communication. The psychometric object is discussed on another page.

The only clear datum in spontaneous telepathy is the complete passivity of the percipient at the beginning of the happening. The agent usually has a consciously emotional attitude to the percipient at the moment of the transmission, that is, he 'thinks of him' – but sometimes not. In some cases he would like to transmit, does so, but does not know that he is doing it. In experimental telepathy the agent not only would like to transmit but does so consciously; but sometimes he has the idea of transmitting in sleep and does so, but hence without waking consciousness of the transmission.

But the following questions constitute the prime riddles: how does the agent in telepathy find this particular percipient? How does the percipient in thought-reading hit upon this particular mental content of the agent? These questions will take on importance when we come later to decide between different theories.

We now come to the modifications of the 'perception.' In spontaneous telepathy the percipient can

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have a mere 'impression,' a vague 'apprehension,' a visual or auditory dream experience, a similar hallucinatory experience in the waking state – we leave on one side the possibility that sometimes he may also experience objective apparitions. We also find collective experiences here, as well as in willed telepathy; whether they refer to real apparitions could be decided only by the photographic plate; if they do not, as appears to us more probable, then mass or chain telepathy may be in question, that is, the percipients could be directly influenced all at once or only one in the first place, who then supernormally transmits his knowledge to the next, and so on.

It should be possible to relate the manifoldness of the form of experience in its details to the type appropriate to the percipient, and a certain degree of understanding should be attained in that way. It is known that there exist, so far as normal modes of representation are concerned, persons of visual, auditory, and motor dispositions.

We shall see later the special importance of the fact, already referred to, that the telepathic percipient often 'perceives' the agent in the specific situation in which he actually finds himself, perhaps even against the expectation of the percipient. In these circumstances the percipient, who has merely been 'called' and who was at first wholly passive, becomes active.

Thought-reading metagnomes declare that they 'see' or 'hear' what they say. These reports are the

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more likely to be true the less they are the result of reflection on the part of the metagnomes.

If there occurs in true experiment a combination of willed telepathy and the will to receive, then the agent and the percipient may each 'see' the place and the situation of the other.

The purpose of a crystal or similar object is probably only to throw the metagnome into a light somnambulistic state.1

h. THE ESTABLISHED FACTS²

After the many 'if's' of the previous section it appears desirable, before we proceed to theory, briefly but systematically and in accordance with our sharply defined concepts (see pp. 66ff. above), to state what we regard as certain, what as to some extent probable, and what as doubtful in the whole field of psychical research. We would again emphasise that 'doubtful' does not necessarily mean 'definitely excluded.'3

We begin this brief exposition with the paraphysical phenomena, in regard to which our task is particularly easy.

In our opinion nothing is at present unquestionably certain in the field of paraphysical phenomena,

¹ So also Dessoir, Vom Jenseits der Seele,⁶ p. 83, and Besterman, Crystal-Gazing (1924), p. 181.

² The literature I cite is the result of a purely subjective choice. A good survey of the most essential publications is that published for the S.P.R. by the National Book Council. If only the many a priori sceptics or indolently indifferent persons of our time would read no more than a fraction of the literature there cited !

³ Cp. p. 61 above.

because in no single case could the conditions of investigation completely exclude the possibility of fraudulent deception on the part of the medium or of one of the sitters - whether deception of a conscious or of an unconsciously somnambulistic kind.

From what I myself experienced at Schrenck's house with Willy and Rudi Schneider and from what has been published about them1 and about Eusapia Palladino² in the literature of the subject, the genuineness of telekineses and perhaps also of fragmentary materialisations (a phenomenon I have not myself seen) seem to me probable. At any rate, the genuineness of these things appears to me probable to such an extent that I can conscientiously say that this is a field in which work should certainly be continued under improved conditions, such as have been practised (see p. 28 above) in a particularly thoroughgoing manner by Osty.

Spontaneous hauntings (bound to places or persons?) seem to me, at any rate from the reports of Walter Prince,3 who is a very careful investigator, also worthy to be described as 'probably genuine.' And there is also a series of other cases

1 Schrenck-Notzing, Die physikalische Phänomene des Mediumismus

² The report in *Proc. S.P.R.*, xxiii, should at any rate be read. Even the careful Dessoir admits in his *Vom Jenseits der Seele*⁶, pp. 280ff., that all the phenomena of the Schneiders and of Eusapia cannot be explained away by the assumption of fraud.

³ Walter Prince, Carbon Monoxid or Carbon Monoxid Plus?, Bulletin II of the Boston S.P.R., and The Psychic in the House (1926). See further Schrenck-Notzing, Gesammelte Aufsätze (1929), pp. 240 ff. F. von Gagern's Geister (1931) should also be read, notwithstanding its 'literary' form. After all, it is no objection against the scientific value of a book to say that it is well written!

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which the critical investigator cannot consciously dismiss out of hand.

This completes the tally of the physical phenomena that can in my opinion be accepted if any caution be exercised. I regard everything else as not demonstrably genuine or even as probably genuine from a scientific point of view. I should be very glad if the demonstration of further phenomena could be accomplished, for they would carry with them a great enrichment of our image of the universe. And there is no such thing as an a priori negative to tell against them.

In the parapsychical field in its narrow sense, that of the mental phenomena, we have spontaneous telepathy as a quite certain fundamental phenomenon. Nobody who has thoroughly studied *Phantasms of the Living* and it supplements, as well as the remaining good literature, can doubt it. The fact originally represented by this name, the acquisition by a passive percipient, in a manner other than normal, of knowledge possessed by other minds, is certain. Whether it is in the profoundest sense a fundamental phenomenon not explicable in any physical way, such as the assumption of special forms of radiation, must be determined theoretically. Even if the point of view of Baerwald, be

¹ Gurney, Myers and Podmore, Phantasms of the Living (1886, 2 vols.). Supplement by Mrs. Sidgwick in Proc. S.P.R., xxxiii. 23ff. Particularly impressive cases in Phantasms are numbers 12, 13, 20, 48, 146, 163, 166, 183, 191, 192, 198, 200, 223, 224, 229, 234, 284, 345. ² Die intellektuellen Phänomene (1925). Baerwald admits the facts, even too many of them in my opinion, but tries to explain everything by 'radiation' and hyperesthesia.

accepted, telepathy although not a fundamental fact, would of course still remain an empirically new one.

Quite certainly established, further, is thought-reading. Here should be studied above all the many substantial records of sittings with the metagnomes Mrs. Piper, Mrs. Leonard, and Forthuny. Actually from whom and how the knowledge is tapped is of course again a theoretical question. The fact remains that the metagnome possesses 'strange' knowledge which he did not acquire normally.

The experimental facts, in which telepathy and thought-reading unite, are also quite certain.³ I cite particularly the names of Tischner, von Wasielewski, Pagenstecher, Upton Sinclair.

Very good cases are also reported of spontaneously simultaneous activity of agent and percipient in so-called telepathy, which in those cases, however, suggests the presence of more than the name originally intended.⁴ I am thinking of the cases in which the agent merely 'calls' the percipient, who then,

¹ Numerous reports in *Proc. S.P.R.*, from vol. xiii. onwards, are particularly important.

² E. Osty, Pascal Forthuny (1926).

³ Among others: Phantasms of the Living, i. 10ff., ii. 324ff., and 642ff.; Proc. S.P.R., xxvii, xxix, xxxiv (Experiments with Gilbert Murray). Richet, Proc. S.P.R., vi. 66ff. Pagenstecher, Aussersinnliche Wahrnehmung, pp. 33ff. Upton Sinclair, Mental Radio (1930); Prince's very severely critical verification and endorsement of the facts reported by Sinclair should be compared (Boston S.P.R., Bulletin XVI, 1932).

⁴ Phantasms, i. 368ff., 554. At ii. 277ff. is a profound disquisition by Myers, whose work Human Personality should also be thoroughly studied by every scientific psychical researcher.

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however, 'sees' situations of which the agent was certainly not 'thinking.'1

In order to define the notion in question so as to avoid all misunderstanding, I repeat that we speak of pure telepathy when the agent is alone active, whether consciously or unconsciously, and the percipient is merely receptive. We speak of thoughttapping when the percipient, whether consciously or unconsciously, wants to receive, the agent merely sending the knowledge without knowing that he is doing so. In the experimental cases the union of these two elements occurs, since both partners are active, the wills of each of them being fixed in a general way on the other; the agent wants to send and the percipient wants to receive, even though he does not know what he will receive. In the cases of spontaneous 'encounter' the situation is more complicated and will later require a special hypothesis. In these cases the agent and percipient do not, as in the experimental ones, concentrate on each other simultaneously at an agreed time. The position is rather that the percipient, who was merely receptive to begin with, has been made active by the call of the agent, who was alone active originally, and now himself 'perceives' situations which the agent did not possess as a mental content.

This last part of our conceptual definitions has automatically led us back to the question of the reality of parapsychical phenomena. In these cases,

¹ Good cases of his kind are in Myers, Human Personality, i. 256, 270, 394.

in which the percipient is only called and then 'sees,' is he not 'clairvoyant,' if we describe clairvoyance in general as the supernormal acquisition of knowledge about concrete situations? To unprejudiced observation clairvoyance certainly appears at first sight to be present. But perhaps it was nevertheless all due to telepathy, there being, however, more agents at work than the one actually 'calling.' Perhaps others saw the wounded officer in this particular attitude and clothing and transmitted their normally acquired knowledge telepathically to the percipient, who would thus be telepathically influenced from more than one direction.

This interpretation is admittedly very artificial and falls completely to the ground if it can be shown that no one saw the dying officer. And there are such cases.

Thus we see that there exists clairvoyance 'at call.' But if this kind exists there may exist other kinds also, as in the supernormal solution of crimes, in which a corpse is 'seen' in its right place. More than this I should not like to say at present; critically reported cases are far too few; and there is certainly no case which is scientifically certain.

Prophecy is a phenomenon which, still retaining my cautious point of view, I will describe as probable. In fact, on the basis of the reports of Richet, Osty,¹ and others, this probability is a very high one.

¹ Richet, L'avenir et la prémonition (1931). Osty, La connaissance supranormale² (1925). A recent good case is in Psychic Research (1931), pp. 546ff.

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In very numerous cases the things prophesied came true accidentally 'from without' (cp. pp. 83ff. above).

Psychometry, again, at any rate so far as the works of Wasielewski and Pagenstecher are concerned, is, *prima facie*, a fact. Whether and how far it is a basic fact we do not know.

It will be seen that the stock of facts in the mental field of psychical research is very ample. Much is really certain, the rest can conscientiously be described as probable even from a strictly critical point of view.

PART TWO

THE THEORIES OF PSYCHICAL RESEARCH

Ι

THE CONCEPT OF THEORY AND ITS METHODOLOGY

E now enter on parapsychological theory, to which, as we have already said, the foregoing chapters were preliminary. For a theory is more than the enumeration and even the classification of facts, even if these are demonstrated as fundamental.

a. THEORY

The object of a theory is to fit basic facts into a provisionally quite specific place in the entire framework of our knowledge. In doing so we may perhaps arrive at basic facts in a still higher sense than that in which we have hitherto used this expression. We are seeking for the highest principles of the empirical world, principles which will make everything we know comprehensible, both the already established normal and the supernormal we now have to add to it, which will, that is, make

them appear in themselves as necessary logical consequences. Fundamental principles of the highest kind can only be postulated hypothetically; that is, we can never say more than this: If these fundamental principles existed the facts we know would have to be as they are. For, as is taught by the logic of induction, we can never proceed definitively from the effect to the cause; and yet we have here nothing but effects as our point of departure, namely, the totality of single empirical fundamental phenomena, normal and supernormal.

Since it is thus clear that what we may call a 'universal theory' cannot be more than hypothetical, it will be obvious how much more problematical the task is when the nature of the effects, that is, the facts themselves, have been little studied or even, as in our subject, if their very reality is not always quite certain. Only hypotheses are possible about the fundamental principles, hypotheses which must be advanced in full consciousness that to-morrow they may be demonstrated to be false. But such hypotheses can lead to appropriate experiments or anticipatory observations, which, if they are well carried out, may settle the hypothesis in an affirmative or, which is just as useful, in a negative sense. Hypotheses which are put forward in this deliberately provisional way are therefore called working hypotheses, for it is in fact their purpose to suggest new and quite specific pieces of work.

The severe reproach must be brought against the psychologists, with very few exceptions, of all countries, that they do not concern themselves at all with the new field of scientific psychical research, whether by positive work or by theoretical discussion. They leave it on one side, even when they do not deny its very existence, as if they feared to dirty their hands. And even if once in a way they do touch the subject it is nearly always from the point of view of questioning the reliability of the phenomena, a thing which would certainly be praiseworthy in and for itself if only they did not always approach it with the hope of finding fraud. Most of these experiments have been conducted under laboratory conditions and have succeeded in demonstrating the presence in specific cases of such normal phenomena as 'thought-transference' by the use of codes, without throwing any light on the cases that occurred under quite different conditions, such as thoughtreading over great distances.

It is undoubtedly a good thing to 'work out' existing problems as minutely and thoroughly as possible. And recent normal psychology has certainly done more than such 'working out'; it has, for instance, discovered new fundamental things in regard to such subjects as the processes of thought and particularly (though here the work was done by psychiatrists!) in regard to the unconscious and its related problems. But even to-day nearly all psychologists and psychiatrists pass by that which is quite new – though mostly with a certain reserve, nowadays, which is perhaps a hopeful sign.

b. Methodological Principles

The discussion of parapsychological theories will be fittingly introduced by a brief exposition of certain methodological principles which play their fruitful rôle wherever theory is in question and which are well known to all competent persons, but which require to be most carefully defined in our particular subject.

We already know the first of these methodological principles; it introduced our investigations of second degree, those, that is, concerned with the determination of what phenomena of psychical research are entitled to rank as fundamental. The formula is derived from the scholastic philosophers and we rendered it thus: no more than a minimum of fundamental phenomena should be admitted, or perhaps: no phenomenon may be admitted as fundamental if it can in any way be reduced to another, thus representing only a variant of it.

This principle has now to be applied to our present discussion in the form of the general principle of economy of hypothesis. It instructs us, in our search for the highest universal principles, which would have all known normal and supernormal things as their consequences, which would, that is, explain them, if we dare use that ambiguous word, so to proceed as to aim at the smallest possible number of universal principles, or, if there exists only one universal principle with different aspects or characteristics, then at the smallest possible number

of these aspects or characteristics. We should in particular avoid describing these principles, or aspects or characteristics of principles, as logically co-existent if they can be deduced from each other in that one is logically contained in the other.

In the second place the notion of 'explanation' must be closely considered, and with it the old concept of the causa vera. The verb 'to explain' has in fact several meanings, and that is why we called it ambiguous.

In the first sense of the word an empirical situation is said to be 'explained' when it is shown to be a particular instance of a class of cases the laws of which are known. In this sense, therefore, the falling of a specific stone is 'explained' by Galileo's law of falling bodies, the movement of the moon by the principle of inertia and Newton's formula of gravitation. But the fact is often overlooked that we do not explain in this way why this particular stone fell at this particular moment and why the moon is in this particular spot. We merely show that these are not special new basic facts, that is all. Even general laws can be 'explained' in this way by still more general ones, as, for instance, when Newton's formula 'explained' the three Keplerian laws. From the point of view of that formula they present nothing fundamentally new.

In all these cases the most general and hence explanatory principle is directly known from other sources; thus an apparently new thing is explained by some other thing which is already known. This

is the concept of the causa vera, which would more appropriately be called the ratio vera, since strictly speaking it is not the cause, which is concerned with specific cases, that is in question, but rather the so-called 'sufficient reason.'

We propose to describe this kind of explanation as an 'explaining away': by its means an alleged new thing is explained away as not a fundamental new thing. He who sees nothing in the whole of psychical research but fraud has explained it away, for swindlers are unfortunately known things. alleged supernormal thought-transference is also explained away by reduction to causae verae when it is attributed to sensory hyperesthesia, to the interpretation of indications, or even to radiation (though this, as a matter of fact, is in our opinion impossible, as has already been briefly stated and as will be demonstrated later in more detail). The degree of hyper-acuity, the scope of unconscious indications, the nature of the physical radiations might be things hitherto unknown; but fundamentally they would not present anything new, they would not constitute new fundamental phenomena.

The other kind of explanation we will call explanation by amplification. Here it is not the ratio vera that is employed; rather a new very general thing is demonstrated, in relation to which specific things do not appear as special new ones in themselves. If Newton had taken his formula only from the individual laws of Kepler, then it would have been an amplificatory explanation. Actually,

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however, he hit upon it by reflection on the falling apple, and thus in fact employed the causa vera of the law of gravitation.

As we have already seen in some detail and as we shall see further, psychical research cannot progress by the use of the causa vera.

We shall nevertheless adhere to the general principle of parsimony. Since the use of the ratio vera will not work, we shall have to introduce new things as bases of explanation, but of course as few new things as possible, that is, a minimum of the fundamentally new.

There is another methodological principle, the value of which has been established, that we have to follow in our discussion: we must if possible introduce such new things as are, in principle, already required for the explanation of normal situations and not exclusively for the explanation of the supernormal, though, of course, we shall have to add new 'aspects' or 'characteristics' to a something that is not itself after all fundamentally quite new. At any rate, we must obey this leading principle so far as it will take us.

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PARAPHYSICAL PHENOMENA

E begin our discussion of the theories of psychical research with the field of the physical phenomena, for we want to proceed from the easier part of our task to the more difficult one, and things are in fact a little 'easier' in the paraphysical field than they are in the parapsychical. I know that many will read this with some astonishment, for the mental department of our subject in general enjoys greater agreement and greater confidence than does the physical. It is quite proper that it should, so far as the certainty of the facts is in question: we have emphasised this ourselves. But it is nevertheless true, as we shall presently see, that the paraphysical phenomena, or at any rate that part of them which may be allowed to pass as to some extent probable, are easier to understand than the parapsychical ones.

I am thinking here of those paraphysical phenomena which, if we accept their reality, occur in connection with the body of a living person, and which we summed up on p. 92 as 'materialisation in connection with the body of a living person,' using the word 'materialisation' in a very wide sense, inclusive of telekinesis.

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These things are relatively easy to understand because they are related to facts normally known to biology and psychophysics. Of course they introduce new 'aspects' of the relevant fundamental principles – otherwise the things in question would hardly have to be described, nowadays at any rate, as supernormal.

Biology inclines nowadays more and more definitely to so-called vitalism, that is, to the view that organic life is not capable of being understood from the properties of what is called 'matter,' no matter how they are dealt with, and that the concept of a 'whole-making' (generally called purposive) activity must be introduced as something quite new into the inorganic world. In other words, organic life cannot be understood on the basis of the interaction of the ultimate particles of matter and of the resultant-formation produced thereby (compare the parallelogram of forces).

We do not mean to suggest that all biologists are to-day, like the present writer, confirmed vitalists. But all thoughtful biologists now fix a limit to the explicability of life on so-called mechanistic principles, even if they fight shy of saying something positive about this limit and much more so about what lies beyond it, preferring to leave it as a mere X. The recently published collective work on the fundamental problems of biology¹ clearly shows the truth of this contention.

If, however, they are not afraid to say something

¹ Das Lebensproblem, edited by H. Driesch and H. Woltereck (1931).

positive about X, then all those who have thought about the problem are always driven to conceive it by analogy with that which one knows as mental in oneself, even if a form of 'mental' is in question other than that so known by each one in himself. And on the other hand pure psychology, which is only concerned with the introspective study of the processes of thought, is also driven, if it is to understand the subject of its investigation at all, to admit other factors than those open to consciousness, namely, unconscious and subconscious ones.

So we already have a fundamental breach in the normal field of science, namely, a breach with the mechanistic view, and this is precisely what psychical research requires. In this connection I once spoke of vitalism as a bridge connecting the normal with the field of psychical research.²

Psychophysics built a second bridge in connection with the mind-body problem when it refuted so-called psychophysical parallelism. This theory, which would be better called psychomechanical parallelism, claims, as is well-known, that the conscious experience of man is the same thing as the mechanism of his brain, only seen from the 'other side.' This theory has been driven ad absurdum in two ways. One is by showing that man is wholely incapable of being mechanistically understood in his behaviour, even if regarded in a purely objective way as an animated physical body. The other way is

¹ Cp. my *The Crisis in Psychology* (1925). ² Presidential Address 1926, *Proc. S.P.R.* (1926), xxxvi. 171.

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by showing that man is totally different and incommensurable in structure and in manifoldness on his conscious and mechanistic sides, so that one could hardly be the same as the other seen from the 'other side.'

By the refutation of psychomechanical parallelism that which is called the mind is again enthroned by the side of the physical body as an independent entity, and this again is precisely what psychical research requires. It requires this in all its departments, not only in the physical one, and these observations will therefore serve as an introduction to all that follows and not to this section alone.

Thus we see that there are bridges connecting the normal with psychical research. And there is more, for the paraphysical phenomena are in fact directly connected with known 'normal' things.

We know that the so-called physiological effects of suggestion, light inflammations, the stopping of a flow of blood, stigmata, modifications of the processes of digestion, and much more, even to the extent of symptoms of pregnancy, can be suggestively, that is, mentally, produced; it is true, however, that in these cases it is not the consciousness that is in question but the subconsciousness. Thus we know that the mental, strictly speaking, and not merely that mind-like thing called entelechy in vitalistic biology, is capable of influencing the material side of organic life.

¹ Cp. my Mind and Body, trans. Th. Besterman (1927), and The Crisis in Psychology.

Thus we again know from a normal source something that is required by the paraphysical phenomena of psychical research. In fact, if we admit as genuine paraphysical phenomena occurring in connection with a human body, all we have to do to understand them is to enlarge the range of the effects produced by the mind on the matter of the body.

Matter is everywhere in space. For the normal biological purposes of embryology and regeneration the 'vital agency' makes constructive use of this matter¹; in behaviour and in producing the physiological effects of suggestion this is done by the 'mind,' whether consciously or unconsciously.

From the mechanistic point of view, which recognises only forces operating between different portions of matter, both these things are already supernormal. Indeed, the simplest kind of supernormal phenomenon would be represented by that kind of organic process called metabolism: matter which is not under the control of the vitalistic whole-making agency comes under control by 'assimilation,' while matter under its control is removed from it by dissimilation, the counterpart of assimilation.

This is already the simplest form of 'materialisation.' For there is not the slightest reason why in the paraphysical phenomena so called there should be question of any 'creation' of matter. All that happens is the organisation of matter already present.

¹ See my The Philosophy of the Organism² (1929), pp. 250ff.

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Would then paraphysical materialisations and all its special forms (telekineses, levitation [?], materialisation in its narrower sense, etc.) present nothing new? It would certainly be new, for otherwise it would hardly be a supernormal phenomenon. But it would be a new something that forms contact with the old by adding something to it; a new 'aspect' of the activity of an already known agency would be discovered.

Thus, wherever there is a physical phenomenon occurring in connection with the body of a particular paraphysically endowed individual - admitting ex hypothesi the reality of it - we should have to assume that the unconscious-mental part of that individual has the capacity in his purposive action on matter to extend this action beyond its normal range to the extent of as much as several yards, but always in connection with the body. Materialisation would then be organised assimilation in an extended field. In fact, normal organisatory and constructive assimilation, as it appears, for instance, in regeneration, would have to be amplified only in regard to its effects ('small' and 'big' are always relative notions). Materialisation would at the same time be a supernormal embryology.

Thus the paraphysical phenomena would lose the reproach of absurdity, for it would no longer be possible to regard them as wholly incredible and new.

From our point of view paraphysical phenomena would be regarded as vitalistic actions, which, since

they issue from man, could even be described as forms of 'behaviour,' admittedly of an unconscious kind. They would not be supernormal in themselves but only in the manner of their production. In other words, it would not be a supernormal fact that this behaviour takes place at all – if we use the word 'behaviour' in general for any change produced in the material world by man – what would be supernormal would be the mode of its production, the process of the behaviour. Normally behaviour in this sense is produced by the limbs; supernormally – otherwise.

In the strict sense of the word we 'understand' neither the one nor the other! Even the simplest execution of a thing willed is a riddle. I want to take up a pen: do 'I' know how this is 'done' by the excitation of certain motor nerves? And yet this must obviously happen, although 'I' do not in the least 'will' it. 'I' merely want to take up the pen. Who 'does' it?

All that we have said of course applies only to cases where the happenings take place 'in connection' with the body of a given person. The 'connection' may be a quite distant one, but it must be reasonably probable.

If this is not the case, as in objective hauntings not bound up with the presence of a particular person, then we should be confronted with something wholly new¹ – if we admit these things as facts at all. These

¹ Cp. on this point what was said at pp. 89ff. above, about precautions of second degree.

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phenomena would have to be regarded as entirely spiritual *ab origine*, in the same sense as that which in biology is called spontaneous generation. We should find ourselves approaching 'universal spirit' or the spirit theory.

But the facts themselves are still far too problematical here, and particularly in regard to the socalled apports, to justify the further spinning of theories if we are to have any regard to their usefulness. What is required in this field is to establish the facts. Later, in connection with the mental phenomena of psychical research, theories, such as those of cosmic consciousness and personal survival, will be discussed which could profitably be applied to our present problems, at any rate for the purpose of leading to specific observation of the phenomena in question.

III

PARAPSYCHICAL PHENOMENA

E now turn to the theoretical discussion of the parapsychical field of psychical research.

Our investigations into the preliminary precautions have implicitly settled the hypotheses seeking to 'explain away' the phenomena by means of recourse to fraud, the giving of indications, hyperacuity of the senses, 'fishing,' and the like. And they were settled by being rejected, for it was found that they would not work. There exist far too many parapsychical cases in which the above assumptions would quite definitely not meet the facts – upon which there arises the problems of second degree, which we have also already discussed, as to what kinds of parapsychical phenomena we have before us.

a. The Hypothesis of Radiation

We have already indicated in passing that the hypothesis of radiation is inadequate as an explanation of the supernormal transference of knowledge; but we must demonstrate this now in a somewhat more thorough fashion. The explanation here in question is not one, as in the case of the others just mentioned, that can be dismissed by means of precautions of first degree, that is, relating to the

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actual conditions of the observation or experiment. It can only be settled by considerations of highest degree, by such as do not refer to a mere 'yes' or 'no,' but rather to a 'why.'

With a view to what follows I want to introduce into the general concept of 'supernormal transference of knowledge' the notions of the transference of 'identity' and of 'correspondence.' We shall speak of identical transference when an experience is supernormally transferred from one person to another just as it is. We shall speak of transference of correspondence when that which is transferred is not the experience of the sender or agent as such, but rather a definite and clear fact or notion connected with him.

Now, it would be possible to conceive the transference of identity by means of physical rays if the theory of psychophysical parallelism is accepted. In fact, as was already said on p. 116, we regard this theory as wholly refuted; but let us admit it for the moment. If we do so a case of identical transference might possibly be viewed as follows: Person A experiences an experience a; this involves a specific state of his brain; this state is transferred to the brain of a person B by means of radiation, and there produces, on the principle of tuning-forks adjusted to the same notes, the same brain-state; and thus B also experiences the experience a.

This might perhaps be the case where the transference of quite simple kinds of representations is in question (assuming the truth of parallelism), as in

the well-known experiments in which the agent's experience of 'sweetness' or 'pain' (the result of a self-administered pin-prick without the knowledge of the metagnome) is supernormally experienced by the metagnome. It might also be possible in the supernormal transmission of geometrical representations of an intuitive kind, though here already this explanation is not very probable.

But let us now postpone further discussion of the transference of identity, and turn to that of correspondence. For any transference of this kind the theory of radiation is impossible, quite irrespective of one's attitude to parallelism. This is particularly clear in spontaneous telepathy. Here a man in danger of death thinks in some way of his distant wife; she, however, does not as a result think of herself, as would be expected on the theory of parallelism, radiation and tuning-forks, but in fact sees or dreams of him! Perhaps she sees him lying there wounded – but he does not see himself thus, and there exist good cases in which nobody else was present, thus excluding the possibility of a secondary agent.

Baerwald¹ has suggested that on the receipt of a telepathic monition an associative play of phantasy is set up in the percipient which produces a dramatic setting for the experience. This may very well be true of many cases and Baerwald's suggestion therefore deserves very serious consideration. But it is meaningless in the correspondence cases, in which

¹ Der Okkultismus in Urkunden (1925), ii.

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details of the situation of the sender, even unexpected details of dress, hair, etc., are received by the percipient, quite apart from the cases in which the possibility of a secondary agent is definitely excluded. Baerwald, in order to admit as genuine only telepathy, without the addition of clairvoyance, also suggests the possibility that the agent perhaps preserves in his subconsciousness pictures of all the details of the kind just mentioned, and may thus be able to transmit them; but we find this idea so artificial and to such an extent adapted to a preconceived notion that it hardly deserves serious discussion.

These considerations make the application of the hypothesis of radiation to any case of the transference of correspondence impossible. Such transference will later provide us with the basis for new considerations as important as they are novel.

Moreover, even in regard to the transference of identity the radiation hypothesis collapses completely, as Tischner has shown, as soon as the transference in question is not of homogeneous, that is, of uncomplicated or of simple geometrical things.

Tischner¹ has directed attention to the fact that, in the first place, the percipient does not 'grasp' the thing transferred with the aid of so complicated a structure as the eye. But what then does he use? Nothing is known of any other specifically constructed reception apparatus, in the brain, for instance. But there would have to be such an apparatus; for rays emanating from a brain go forth to all the winds

¹ Telepathy and Clairvoyance (1925), p. 189ff.

and would have to be collected again in a determined manner in order to produce in the brain of another a picture of the situation by which they were sent out.

In the second place it seems very strange that, judging from all we know, the strength of the supernormal transference of knowledge is independent of distance, so that it is a matter of indifference whether a transference between Calcutta and London is in question or one between two rooms in the same house. But the intensity of radiations diminishes in accordance with the law of inverse squares.

Tischner asks further what agreed conventional symbols are used in the transmission when the subject of the telepathy is anything abstract, such as a thought or a feeling. In telegraphy, whether with or without wires, we have such symbols of a conventional kind; in speech and in writing, the 'wireless' methods of transmission of 'meaning' in everyday life, these symbols are the spoken sounds and the written letters and their combinations. They are conventionally made to correspond for the purpose to a specific 'meaning,' such as the meaning 'the philosophy of Kant.' There can be no question of this in telepathy.¹

¹ Baerwald (op cit., pp. 102ff.), in his criticism of Tischner ignores his chief argument, here set out, against the hypothesis of radiation. It might also be said that he tries to weaken the force of Tischner's argument by citing quite irrelevant facts: in the transmission of music, in fact, it is not 'meaning' in the form of purely conventional symbols that is transferred, but rather sounds as sounds! This is overlooked by Baerwald when he cites the transference of music against Tischner.

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On these lines, it seems to me, one can go more deeply into the matter and come to the same arguments which have led me radically to deny the truth of psychomechanical parallelism. This, however, is an indispensable basis for the theory of radiation, so that this theory must fall with that constituting its foundation. It is simple nonsense and juggling with words to say that the content of a thought, with its accent of truth or falseness, that is, its 'meaning,' is really the same as a determined constellation or movement of electrons in the brain, only 'seen from the other side.' But this must actually be assumed in the theory of radiation.

But he who points to the fact, and here we return to Tischner's own argument, that we transfer every day by radiation and without the use of wires, in speech and writing, the 'meaning' of thoughts, forgets that this is always done by the translation of the meaning into agreed symbols (different ones in each language), that these symbols are transferred wirelessly by radiation, and that they are then retranslated in a conventional manner into 'meaning.' Now these conventional symbols, which would be absolutely indispensable as soon as the simplest intuitive transference were in question, are lacking parapsychically – and with this fact the theory of radiation is settled.

A new and apt argument, which has recently been put forward by Belton,¹ can be added to those already adduced: the theory of radiation does not

¹ Psychical Research and Religion (1931), p. 35.

explain how a telepathic message reaches the precise person whom it concerns. Transmitted waves would reach many people, if not all. This argument also is destructive of the theory.

If we admit true clairvoyance as a special phenomenon of a fundamental kind, which we may perhaps do, as was shown at pp. 79ff. above, we obtain a phenomenon which might, on a very superficial inspection, be perhaps referred to a transmission by means of rays. For the 'seeing' of the clairvoyant is certainly not done with the eye; what then does he use?

But we need not pursue this line of thought. When the content of a simple message written on a flat piece of paper in a closed and non-transparent envelope is clairvoyantly read, whether presented by its face or back, we have a fact which tells strongly against any kind of 'seeing' with the intermediary of rays: for otherwise the message would have to be 'seen' in mirror-writing when presented by its back! And much more so in the case of much-folded letters, where it is the content that is grasped clairvoyantly and not the chaos of the overlapping letters. Thus from this point of view also the hypothesis of radiation is settled. We shall see later what has to be put in its place.

How then could the dynamic of the mental phenomena of psychical research be understood, and thus explained, now that the theory of radiation, which tried to explain them away, has been refuted?

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It appears at first sight that there exists another way of explaining these phenomena away, the concept of 'psychic energy.' But quite apart from other considerations which appear to tell fundamentally against any form of psychic or 'vital' energy,¹ such an energy also would have to be transferred, and thus we get back again to the hypothesis of radiation, which has been shown to be impossible.

Thus an explanation has to be sought in quite another direction: we must turn from the theories which seek to explain away to the amplificatory theories, as defined on pp. 110ff. above. Let us now do this carefully and step by step.

b. THE NON-PHYSICAL THEORIES

As has been pointed out several times, that which we have to investigate is the acquisition of knowledge in special forms, that is, knowledge possessed by other minds and knowledge relating to objective situations. Now, as we said on p. 119, paraphysical phenomena, at least such as occur in connection with a human body, are forms of behaviour such as exist normally in the form of changes produced by man in nature; consequently it is only the method of their production, the way of the behaviour, that constitutes the supernormal element.

This is equally true here, and we repeat that knowledge remains knowledge and the acquisition of knowledge remains the acquisition of knowledge. The manner of the acquisition is that which is

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¹ Cp. my The Philosophy of the Organism² (1929), p. 256.

super-normal; it does not in fact take place by the intermediary of the organs of sense, but – otherwise. How it happens is what we must now try to investigate.

Judging from all we know on the subject the transference from agent to percipient or, in so-called clairvoyance, from object to percipient, of supernormally acquired knowledge, cannot take place in space or, more accurately, through space or spatial paths. Hence, as the transference nevertheless takes place, we must go 'out of space' into unknown modes of transference. It will be said that our whole knowledge and experience are radically bound up with the framework of space (and of time), and that this is equally true of the field of psychical research so far as it is concerned with the direct knowing of the empirically real. We said ourselves on p. 66 that the supernormal must be known 'behaviouristically,' that is, by the observation of the metagnome in relation to the statements made by him and consisting in the last analysis of movements of the mouth or hand.

Thus the whole subject remains natural; but this enables us only to investigate the facts, not to understand them.

I. THEIR NECESSITY IN NORMAL BIOLOGY AND PSYCHOLOGY

The normal organic processes, although also considered directly as movements of matter, already compel us, as taught by vitalism, to introduce

agencies operating, as it were, 'into space' rather than out of matter; and this is precisely why vitalism forms a bridge to psychical research, since it already 'goes out of space' itself.¹ These agencies must be there if the organic is to be causally understood at all; of course we know their presence only from their effects, that is, only in so far as we know that they must have the capacity to produce that which is known to experience to occur. Hence they must 'be there' – we repeat this once more with emphasis; otherwise we must dispense with a causal explanation.

Now biological vitalism speaks also of a 'whole-making' X-agency in relation to the formation and maintenance of a living person. But in psychical research we need more; we need something, to speak quite generally for the moment, that relates to several persons, that is, something superpersonal, and something that, like everything vital, is concerned with space only in so far as it manifests in it, but which is not in space and does not work through it.

What would be the position if normal biology and psychology also needed something similarly 'superpersonal' after having already 'gone out of space'? And in fact they do need this.

For in biology we have the fact of phylogeny or history of the organisms, which, since Darwin's

¹ We are not concerned with the current nonsense about a 'fourth dimension' of space. Space has only three dimensions. That which is in question is something which is connected with space only in so far as it finds expression in it.

and Lamarck's theories of chance failed, are quite incapable of being understood without something like a superpersonal entelechy manifesting itself in phylogeny.¹

We have further the experimentally established facts of regeneration and of the development of several complete organisms out of one egg after the separation of the cleavage cells from one another, as well as its counterpart, the development of one 'giant' organism from two eggs. We know, further, that a female organism produces many eggs, which, however, were in embryo only one cell, which then divided itself. These facts, which I have discussed in detail under the name of 'The One and the Many,'2 force us to speak here of the activity of a superpersonal entity.

And in mental life we possess a strange fundamental experience which is called 'moral consciousness.' This experience, which expresses itself in the form of a statement that something 'should' be, in express relation to another living thing, is also in the clearest manner superpersonal.

Thus biologically and psychologically we already require in a normal context something like a framework comprehending individuals, to give a colourless name to something that is a riddle. This superpersonal thing must be there, just as something nonspatial must be there.

² Op. cit., pp. 329ff.

¹ The Philosophy of the Organism ² (1929), p. 182.

2. THE MENTAL FIELD

Now parapsychically, as has already been said, we also require something superpersonal in addition to something non-spatial in general. It is certainly satisfactory that we can show the thing we require to be at any rate connected with something known (p. 131), even if we are at the same time obliged to add new characteristics to it from a parapsychical point of view.

For, as has been shown, we in fact require, since space does not suffice, a non-spatial connecting framework for many souls, a framework which must now, however, be expressly valid as a field of communication for single causal happenings: a necessity which did not yet arise in normal biology and psychology. In this field, the word 'in' naturally not being taken literally (but a better one is not available), must take place the acquisition of knowledge in telepathy, thought-reading, and clairvoyance. We will call this the 'mental field.' Every parapsychical theory requires the introduction of this non-spatial mental field, since it is in fact causal transference that is in question. This is true whatever animistic, spiritualistic or other form the theory eventually takes on.

3. PURE ANIMISM

A parapsychical theory which only admits the minds of living personal beings is called animism, even though many of those who call themselves

animists introduce notions, without noticing that they do so, which appreciably transcend the framework of the concept of the living personal soul; we shall have to return to this.

We will describe as *pure* animism a theory which is really based only on living personal minds capable of directly exchanging knowledge.

A pure animism is certainly logically possible a priori, if there is added to it from the beginning the theory of a causally linked superpersonal 'mental field,' which, as we have said, every parapsychical theory needs; without this addition the purely animistic theory would certainly already be inadequate. For a linkage is present in all supernormal transference of knowledge, and in fact space does not suffice as the field of communication and as the bearer of causal relations.

It is now the question whether the general very indefinite theory of animism and the mental field really suffices for the parapsychical objects of experience. A glance at the very short history of scientific psychical research already shows that this theory is obviously not sufficient throughout: students have hardly ever been content with a merely general and indefinite pure animism, but have usually, even when calling themselves animists, added something that goes beyond the general form of the theory, quite apart from the absolutely necessary addition of the mental field. Why is this? What facts have brought about this situation?

4. ELEMENTARY AMPLIFICATIONS OF PURE ANIMISM

Of course the facts which have led to such amplifications of the theory of pure animism are not present in every parapsychical observation or in every parapsychical experiment. It is precisely in true experiments that there is no reason for any such amplification.

The Miles-Ramsden¹ and Upton Sinclair experiments may be considered in this connection: here animism and the mental field suffice. The same is true of Pagenstecher's experiments, so far as they relate to the transference of simple sensory experiences; as we pointed out, even the hypothesis of radiation might have been applied to them if it were not impossible on other grounds.

Here and in some other cases, as in those published by Richet, pure animism, completed by the theory of the mental field, is thoroughly adequate for the explanation of the facts, not requiring any amplification. Nevertheless there arises even here in a definite manner a special question which is not yet explained by animism and the mental field; and this question, which thus involves an essential amplification of all the theoretical considerations put forward so far, though without actually exceeding the limits of the animistic theory, must now be seriously approached.

The problem in question is this: how do the agent and percipient find each other? We will call this problem that of 'rapport' (Abstimmung).

¹ Proc. S.P.R., xxi and xxvii.

In the domain of the normal I find the person to whom I want to make a communication or from whom I want to receive one either by perceiving him with my senses or by knowing where he is and the means (post, telegraph) by which I can reach him. What is the position in the supernormal field? To speak frankly, we do not at all know the answer to this question, and we can only put forward hypotheses; these have to answer the questions 'where is he?' and 'how can I get at him?'

In spontaneous telepathy and in thought-reading with persons present the former question can at once be regarded as already settled; in telepathy this is perhaps not always so.

It is customary in spontaneous telepathy to regard the second question as answered by talking of an 'emotional' link, such as love or affection, connecting the agent and the percipient. This may be true, but it is not precise and it does not always apply. For there exist cases of spontaneous telepathy between persons indifferent to each other. And we have experimental, that is, voluntary telepathic transmission between persons not standing in any real emotional relation; the expression 'common interests' hardly represents much more than words.

In thought-reading, even of persons present, there is also the great difficulty represented by the selection of that which is tapped. Why is this particular thing and none other extracted from the agent, who does not even know that he is 'giving' his knowledge? And that which is extracted can be not

only something actually conscious, which could be understood without difficulty, but also something forgotten and even something no longer capable of being remembered. Here we have already reached one of the reasons which will later make it necessary for us to go beyond pure animism, and therefore we will not follow this line of thought further at the moment.

In tapping the thoughts of absent persons the question of their whereabouts presents no particular difficulty when the metagnome knows where they are. But usually he will not know this. And the position is much more complicated, quite apart from the question of selection, when something not actually conscious is in question, as is practically always the case. Here also the limits of pure animism, so it seems, must be altogether exceeded.

From all these considerations it can be seen that the question of rapport between agent and percipient, though it does not necessarily always go beyond the bounds of pure animism, in any case sometimes offers great difficulties. And it is also obvious that the question of selection even in thought-reading from persons who are present or whose situation is known, practically destroys the framework of pure animism, quite apart from the tapping of the thoughts of persons who are absent and whose situation is unknown.

We have to note expressly that so-called psychometry is intentionally left on one side for the time being.

5. THE HYPOTHESIS OF EXTERIORISATION

In the previous section we discussed difficult special problems lying within the framework of animism, but already sometimes leading to its furthest limits; to this we now have to add an additional hypothesis, that of so-called exteriorisation.

It is reported that patients in a deep narcotic condition for the purpose of an operation sometimes see the whole process of the operation 'from the outside,' or at any rate correctly describe it afterwards in its details and from a quite specific point of view, making at the same time correct clairvoyant statements about occurrences outside the operating theatre. These reports certainly require to be corroborated by new cases; but if we assume them to be true, what was it that took place? Did the mind separate itself from the body for the time being? This idea is not impossible for anyone who has rejected psychomechanical parallellism, thus introducing the mind as an independent entity.

True clairvoyant description in a state of trance of distant places, if admitted, would also belong here, though not the clairvoyant reading of folded letters, for which psychometry would have to be called in.

It appears to me, however, as I said before, that

¹ See here above all Mattiesen, Der jenseitige Mensch (1925), sections 37-39, as well as in Zeitschrift für Parapsychologie (1931), nos. 9 and 10. Further Myers, Human Personality (see index under 'clairvoyance') and his theoretical discussions in Phantasms of the Living, ii.

many cases of so-called telepathy are not by any means only that which they appear to be, but rather that precisely here, where we are concerned with really reliable phenomena, a new phenomenon appears which is understandable by and only by exteriorisation. I am thinking of that which we called the transference of correspondence when we were discussing the hypothesis of radiation, that is, of cases of alleged simple telepathy, in which, however, the percipient correctly grasps the actual situation of the agent1 in such details as the clothing, arrangement of the beard, nature of the wound, etc., often against his own expectation and when the influence of another agent who might have known and telepathically transferred these facts is at least very improbable, if not altogether excluded. Does it not seem here, especially when the percipient is influenced in sleep or day-dream, as if the properly telepathic influencing only consists, to put it briefly, of a 'call,' on which the 'mind' of the percipient, who thus now becomes the really 'active' partner, 'transports' himself to the place of the callen? Cases such as those here described, let it be emphasised once more, are precisely those which are among the best established phenomena of the whole of psychical research.

And in experimental telepathy the original agent may also 'travel.' Very good cases are reported

¹ Cp. p. 79 above. Those cases do not belong here in which reciprocal telepathy is in question, that is, those in which the participants see each other, but each in his own surroundings as if the other were calling on him. Cp. e.g. *Phantasms of the Living*, case 645.

in which the location of the percipient whom he wished to see is correctly described by the agent, even though sometimes without 'understanding' (cp. p. 43 above). We expressly leave on one side for the moment the fact that the percipient is sometimes said to be seen as a 'phantasm,' and with it the question whether the experience is then a subjective hallucinatory one (in which case it would still remain supernormal) or whether it is an objective phenomenon (in which case it would no longer belong to the field of mental phenomena).

Moreover, conscientious writers have also reported many cases in which a metagnome, without being 'called' (or in which the 'calling' could not be demonstrated) and without intending to do so, in sleep, entranced or fully awake, spontaneously describes distant situations correctly and in full detail.

It can be seen how different would be the 'conditions' leading to a theory of exteriorisation if we hypothetically admit it.

Thus the theory of exteriorisation in all these cases, that is, in clairvoyance at call or without it, explains the special character of the metagnome's statements. It explains why the clairvoyant metagnome never grasps supernormally any but quite specific things. It is not real clairvoyance on the part of a locally fixed metagnome which has to be considered as the truly determinative factor, but rather the specific 'mental journey.' He who 'travels' normally also does not see anything but

the details of the road he is travelling along and the goal of his journey.

It is true that we ourselves said on p. 104 that clairvoyance is not as well established a fundamental phenomenon as is telepathy. We pointed out that in many cases, especially in some (if not all) those in which the agent only 'calls' the percipient, then correctly 'seeing' the whole situation, it might be said that there are other persons who have normally seen the situation, and that they as well as the actual call telepathically influenced the percipient.

But I frankly admit that this supposition also appears to me, where it is logically possible, to be much more artificial than the hypothesis of exteriorisation, quite apart from its not being true of all the cases reported.

Perhaps the reports of 'doubles' also find their place within the framework of the theory of exteriorisation, especially also the so-called 'arrival cases' of the English investigators. All this has been but little investigated as yet. Is it a telepathic hallucination spontaneously projected without the knowledge or the intention of the agent or is it perhaps – an objective apparition? In regard to a 'premature' visitor this might well be shown by a photographic plate. Moreover it is still necessary strictly to establish the facts in this department.

It must expressly be stated that the hypothesis of exteriorisation can only be applied to such cases of

¹ Phantasms of the Living, ii. 96ff. Much material is contained in you Gagern's work Geister (1932).

the supernormal acquisition of knowledge as deal in some way with the perception of objective facts, that is, to direct clairvoyance as such or to cases of telepathy containing more than the name implies. The theory of exteriorisation has nothing to do with tapping the thoughts of others or in general with the acquisition of the knowledge possessed by other minds. But where anything connected, though perhaps not exclusively, with clairvoyance is in question, this theory and this theory alone to a certain degree explains the facts.¹

And we repeat once more that the refutation of psychomechanical parallelism has rendered it possible, more so, is necessarily presumed by it, just as pure animism and the theory of the mental field necessarily presumed its refutation.

It can be seen how the newer normal psychology everywhere paves the way for psychical research.

1 We have interpreted the cases in which telepathy seems to be mixed with clairvoyance and which may possibly be explained by the hypothesis of an 'exteriorisation,' in such a way as to let the telepathic call come first, followed by the clairvoyant effect perhaps related to an 'exteriorisation.' Thus here the telepathic agent starts the whole thing, as it were. If we admit a clairvoyance which is not bound to telepathy in this way, then it may perhaps also be the person gifted with clairvoyance who 'starts.' He would then start with his clairvoyant vision and then himself act as an agent because of this vision, perhaps in giving a warning to the person whose situation is grasped. This would be quite a different kind of connection between telepathy and clairvoyance. My wife interprets the experience she describes (Zeitschrift für Parapsychologie, 1926, p. 666 and 1931, p. 493) according to this latter possibility. But could she not after all have been called subconsciously by the person in danger, who was sleeping but dreamily conscious, having a dim cognition of the critical situation? In any case the admission of but one kind of connection between telepathy and clairvoyance would make the situation more simple.

We will now return to those cases in which the acquisition of knowledge possessed by other minds, not the knowledge of objective situations, is in question.

6. THE DOCTRINE OF COSMIC CONSCIOUSNESS AND SPIRITUALISM

If there no longer exists a living person who once correctly knew the content of the knowledge supernormally acquired by the metagnome, which is very often the case in psychometrical investigations, then the necessity theoretically to burst the framework of pure animism, which has already presented itself more or less definitely in connection with some of the things discussed above, becomes imperative.

After all, only two possibilities logically present themselves in favour of this theory, each containing several variations: the doctrine of a 'plan-bearing' cosmic consciousness, as supported by James and Osty, and spiritualism proper.

Each of these theories has reproached the other with not working with a causa vera. This mutual reproach is, however, unjustified on both sides, for neither hypothesis can employ a causa vera in the true meaning laid down by us on p. III, for new fundamental phenomena are in fact concerned, so that things already known would at least have to be supplied with entirely new 'characteristics' or 'aspects.' It will be shown in detail how far this is the case with each hypothesis and it will be seen that all one can say is that at the most one

hypothesis introduces fewer new things than the other, and perhaps not even that is possible.

Both hypotheses, without directly saying so, are based on the conception of a mental field, that is, a general, non-spatial superpersonal framework in which interactions between different minds take place. Pure animism itself had already to introduce this mental field.

It is easily understood that both theories also acknowledge the idea of a personal living mind, including a subconsciousness.

Of these two factors the second is a causa vera, since living personal minds are well known. As we already know (cp. p. 133) the former is an amplification, made necessary by the supernormal, of the general assumption of something superpersonal, which is already required by normal science (phylogeny, 'the one and the many,' moral consciousness). This amplification of the normal concerns the hypothesis of the mental field as the medium for immediate causal interactions between living minds.

Both doctrines equally endow personal minds with supernormal faculties, that is, neither with a causa vera nor with an amplification of things already known but rather with a fundamentally new essential characteristic invented in order to explain the facts and fundamentally required by all parapsychology. So far, therefore, the two theories are in harmony.

On this common basis the doctrine of a planned cosmic consciousness suggests what follows.

Cosmic Consciousness

The superpersonal domain is not only an indefinite framework connecting personal living minds and rendering possible an immediate supernormal transference of knowledge between them: it is also a kind of superpersonal subject. Moreover, this subject definitely contains in itself all the plans of the lives of all human beings. Here the theological theory will be remembered according to which human beings and their destinies are 'thoughts of God,' and also the 'Akashic Record' of the Indians. Here it is important to note that not only the entire past is thus as it were engraved in the superpersonal, but equally everything that may possibly come to pass. So it is not quite accurate to speak of a cosmic 'memory'; Osty's term, plan transcendental is better.

But let us go on: the metagnome is able to read directly in another mind with which he is connected through the mental field. It is, however, of much greater importance that he can also read in the cosmic subject and grasp the plans contained in it. E. von Hartmann called this a 'telephone-connection in the absolute.' As the plans in the cosmic subject are indifferent as to the time of their empirical realisation because the future already 'exists' there now, the prophetic gifts of the metagnome do not require on the basis of this theory any special explanation nor the ascription of any special faculties. It is different, however, if the 'cosmic consciousness' is conceived only as a cosmic memory like the Indian

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'Akashic Record,' so that it only contains the past. Probably James only had this in mind. Then prophecy would not yet be understood: it would require special additional hypotheses if it is admitted at all. Then a mere life 'catalogue,' registering only the past, would take the place of the life 'plan.' The adherents of the theory of a cosmic subject answer the question how it is that the metagnome in specific cases gets into contact with this and no other plan or catalogue of life, if they do so at all, by assuming that a psychometrical object, which, as we know, may also be the body of the person concerned in the supernormal statement (cp. p. 87), serves as an intermediary. We will not yet speak of this view because the problem of psychometry as a whole must be dealt with separately.

For the rest, it would be well for the reader to note that the adherents of the doctrine of a plan- or catalogue-bearing cosmic subject do not refer to it as an explanation of all cases of supernormal transference of knowledge. There also exists an immediate transference between individual living minds, which is, in fact, what takes place in genuine experimental cases.

Monadism (Spiritualism)

True spiritualism (Spiritismus) suffers, in Germany at least, from its fatal name, which suggests (alcoholic) 'spirits.' For many persons this name gives it a ridiculous flavour from the very beginning and subconsciously causes them to be sceptical towards it.

Would it not be possible to use the term monadism to describe this doctrine? It has in fact a strong logical relation to the monadology of the great Leibniz, although our monadism endows the monads with a capacity, that of making supernormal communications, which the philosopher did not conceive.

For monadism teaches as follows: The personal minds do not perish with death, which only concerns the physical body; they continue to exist personally with the experience they have gained during their lives. Under certain conditions realised by the metagnomes the discarnate minds are capable of entering into a telepathical exchange of knowledge with incarnate minds or (this is another variation of the doctrine) – of directly using the body of the metagnome for manifestations by speech or writing. Sometimes they also prophecy something with the aid of the metagnome.

On analysing this doctrine into its elements one first of all finds some elements it has in common with the hypothesis of animism: the theory of a superpersonal mental field, which now, however, includes incarnate and discarnate minds. If prophecy is admitted the theory of the 'plans' engraved in the superpersonal cosmic subject is also required – it would then have to be assumed that the form of knowledge possessed by discarnate minds is so different (being so much richer) from that of incarnate mind, that for it a mere calculation would be required for what to us appears to be a mysterious

precognition of the future. After all we too are capable of calculating 'prophecies' to a smaller degree, as for example in astronomy. If we abandon prophecy which, however, is hardly possible now (cp. p. 85), this part of the theory can be omitted. As principal characteristics of the doctrines there would remain the existence of the personal mind after so-called death, but in a new modification of being, and its faculty of communicating itself.

According to the monadic theory there is no essential difference between living and deceased minds; also telepathy always remains telepathy whether it takes place between living minds, between a living and a 'deceased' mind, or, to add a supplement, between two discarnate persons. Something quite different is, however, added by that modification of monadism which supposes a discarnate mind to 'use' the body of the metagnome. This, however, we will leave for the present.

7. GENERAL

As we mentioned above the two theories under discussion, which are both based upon the doctrine of a mental field, each brings the reproach against the other that is does not work with causae verae.

Let us now balance the pros and cons in detail in the question of the causae versae, that is, let us compare the totality of special new things introduced by each theory. We obtain the following result:

The doctrine of a catalogue- or plan-bearing cosmic subject, as a new method of explanation apart

from the general hypothesis of a mental field as the bearer of supernormal transference, introduces several things: first the existence of a superpersonal subject; secondly, its conception of 'plans' which also contain the future; thirdly, the ability of the metagnome to read in these plans; fourthly, the existence of a means which enables him to find in each case the proper plan required.

Monadism, apart from the general hypothesis of the mental field as the bearer of supernormal transference of knowledge, implies the following new things in its explanation: first, the non-physical modification of the mind; secondly, its capacity somehow to grasp the future, either because it reads 'plans' or because it is endowed with a superhuman capacity for calculation; thirdly, telepathy between the living and the dead; fourthly, the means of finding the 'right' percipients.

So, contrary to the general view, the theory of a conscience universelle (Osty) with its plans or catalogues, presumes as many new things as monadism. For indeed this plan-bearing cosmic subject is no more a causa vera than the discarnate personal mind of monadism.

It might even be said that monadism uses somewhat fewer essentially new things than the doctrine of the cosmic consciousness with its plans. For it is precisely this entirely hypothetical cosmic subject, with its 'plans,' that is omitted. Monadism only assumes a supernormal communication between personal minds. Certainly it lets deceased persons

function as agents or percipients, which of course has to be booked against monadism as something new. How the appropriate partner is found also remains a problem in regard to monadism, but it is not as difficult as it would be within the framework of the theory of a cosmic subject. Indeed, it already presented itself within the framework of pure animism (cp. p. 136). However strange it may seem it is precisely within the domain of monadism that life after death is not so very different from ordinary 'life'; indeed, the communication is supposed to be telepathic, but it still remains a communication between personalities (if we rule out prophecy), which is precisely something we know, while we know nothing of any kind of a communication between an individual and the superpersonal cosmic consciousness.

So at least monadism does not require more new things than the doctrine of a plan-bearing cosmic subject, perhaps it even requires less. And it retains the personality, the very thing which is so very characteristic of living mind.

So it would be better for the adherents of the doctrine of a cosmic subject to be a little more careful in starting the question of the causae verae.

We have already mentioned one of the modifications of monadism: the hypothesis which assumes deceased persons to be able not only to manifest indirectly with the aid of a metagnome by telepathically communicating to him that which the metagnome then gives forth, but also to be able to 'make use' directly of the metagnome's body.

Now this modification immediately implies another hypothesis when the question is put what becomes of the mind of the metagnome while his body is thus used. If one is at all willing to enter upon this modification of monadism, the theory of exteriorisation, which was already required as a supplement to pure animism (cp. pp. 138ff.), would supply the answer. Not even the basic hypothesis of monadism being established with certainty, the whole subject is so problematic that it is not worth while to enter upon it more closely.

c. The Impossibility of a Definite Conclusion

Now what about the facts? Is there any objective possibility of deciding in favour of the plan- or at least catalogue-bearing cosmic subject in which personalities no longer exist as such consciously, but are only 'thought' by the cosmic subject, or in favour of the monadic theory of personal survival? As has already been shown, one of these two theories is required (cp. p. 143) for the established facts of psychical research.

The 'mediums' – (on this assumption it is justifiable to call them by this name) – very often claim to communicate with the deceased, or even according to that modification of the monadic doctrine which allows discarnate minds to use the body of a medium directly, to be 'obsessed' by them (for what is here alleged would indeed be true obsession). But of course this mere statement as such does not prove anything.

Fundamentally dogmatic adversaries of monadism (as if it were possible to say anything a priori in this field!) often say that 'spirits' cannot be supposed to produce such trivialities as are put forth by the metagnome in trance and are ascribed to them.

Against this there must be noted, first of all, that we do not know anything about the faculties of 'spirits,' should they in fact exist. It would be quite justifiable to suppose that if they exist it is just as difficult for them to get into touch with us as for us to communicate with them. Besides, they may live in surroundings which it is as impossible to impart to us as it is to impart 'colour' to an entirely colour-blind person.

Last of all, however, could not these trivialities be significant just because they are trivialities? This point has already been made by English investigators. They say: trivialities, small incidents from the former life are just what we should expect if we really suppose a deceased to be present. For what would he want to do first of all? To put it briefly, he would want to prove his identity, to show that he is really present as a specific person. What do we do when we are speaking on the telephone to somebody who does not believe us to be the person we claim to be? We mention minor, unusual incidents we experienced together, for instance, our having been together in a given place, having made a certain excursion together, perhaps having experienced an accident together. Just the same sort of trivialities are put forth by alleged

spirits, so that this circumstance in any case does not tell against their existence. But this does not as yet provide anything positive.

Before we go on in our effort to decide for one of the two theories we are discussing, those of cosmic consciousness and of monads, we must once more refer to a certain relationship between these two hypotheses and mention more of their modifications. For only by doing so can we bring out the really essential point of the question under consideration.

There exists a certain relation between the two theories in so far as both have a persistent personal constituent. For monadism this is the really essential point. But the other theory also acknowledges something persistent and personal in the form of the 'plans' or 'catalogues.' It does not let personalities disappear entirely into the superpersonal, as do certain metaphysical theories of a Neoplatonic origin.

In regard to the modifications of the doctrine of the cosmic subject which we mentioned above, Mackenzie¹ has suggested that personal subjects do in fact appear in sittings, manifesting themselves somehow with the help of the medium, and that they are not pseudopersonalities originating in the subconscious mind of the medium. It may, however, be possible that these persons are created, under the conditions of the experiments, out of an indifferent superpersonal field in the same way as the different 'personalities' in cases of so-called dissociation are created out of the totality of the mind of

¹ Metapsichica moderna (1923).

the person concerned, there existing no identity between the 'spirit' manifesting and any deceased person, nor does this 'spirit' persevere. Oesterreich,¹ on the other hand, admits it as theoretically conceivable (not more), that spirit-personalities manifesting during the experiment may be identical with persons who once lived, but that at other times they are quite absorbed, as conscious personalities, in the superpersonal field, in which they are only contained potentially, not as persevering entities endowed with egos. This too would not be 'personal immortality.'

Finally, we must mention the view which sometimes turns up in the popular writings of spiritualism (for a complete consideration of theoretical possibilities must not overlook anything!). According to this view there manifest in sittings entities that have never been connected with matter, that is, have never been 'incarnated' but have always been 'free' spirits. The Roman Catholic opinion that these entities are evil spirits, i.e. fallen angels, is similar. But we only mention these views in passing.

After these considerations I think we are in a position clearly to discern what it is the problem of a definite conclusion really rests on.

If we formulate the question thus: 'Does something tell in favour of monadism and what is it?' then we must ask: Are there within the framework of well-established supernormal material, facts pointing

¹ Die philosophische Bedeutung der mediumistichen Phänomene (1924), p. 35.

to the activity of a conscious subject identical with a deceased personality surviving in a permanent existence, after death? For this is the true monadic doctrine.

To express the same thing in a more strictly methodological manner: do the metagnomes possess a kind of knowledge supernormally acquired which can in no way be understood as being taken from the knowledge of some person still alive and for which the hypothesis of a plan-bearing cosmic consciousness is also at least extremely unlikely, so that neither a living person nor the cosmic subject can be the 'agent'?

Mattiesen, who is, with Bozzano, the best theoretician in our field, has given us a very thorough and really critical discussion of the facts telling in favour of the monadic doctrine, basing it on the best material existing, that collected by the Society

¹ Der jenseitige Mensch (1925). A good brief recapitulation of the arguments in favour of the monadic theory is also given by Lambert, Geheimnivolle Tatsachen (1921). Objections against the possibility of a definite proof of the monadic theory have been enumerated and discussed in a very critical manner by Saltmarsh (Proc. S.P.R., 1932, xl).

² Unfortunately, however, this acute thinker is not, in my opinion, careful enough in accepting facts as such. What we call 'certainty' is often absent altogether. Bozzano uses three groups of facts in favour of monadism: first, the dramatic form, which will be discussed below (A propos de 'l'Introduction à la métapsychique humaine,' 1926, a polemic against Sudre's work of that title); secondly, the utterances of dying persons in their last moments, especially the fact that they only talk of deceased persons, never of those still living (Phénomènes psychiques au moment de la mort, 1923); thirdly the conformity of all alleged communications from deceased persons about 'the other side' (in a series of articles in La Révue spirite from July 1928). To this must be added his interpretation of hauntings (Les phénomènes de Hantise, 1929).

for Psychical Research. He always cites the original records taken down during the sittings and containing the utterances of the mediums word by word.

In the following discussion of facts in favour of monadism I purposely leave out a group thought to be of great importance by Mattiesen, apparitions and hauntings. For their objective existence is not yet, in my opinion, sufficiently established, and I will here introduce only thoroughly established things.

Similarly I will only quite briefly refer to two things put forward by Mattiesen, and before him by English investigators, in favour of monadism, 'crosscorrespondences' and 'book-tests.'

In cross-correspondences several mediums in places distant from each other each produce fragmentary communications not understandable in themselves, for example, single words of poetry, which only make sense when put together. The mediums maintain that they are reproducing communications from one and the same deceased person.²

In book-tests a deceased person is supposed to communicate through a medium the fact that a book stands in a certain place in a certain library, and that on a certain page of the book there is to be found a passage specifically relating to a quite definite circumstance. There are similar phenomena relating to newspapers (newspaper tests); here statements are said to have been made even before

¹ Zeitschrift für Parapsychologie (November 1930). ² A good summary is to be found in J. A. Hill, New Evidences, pp. 164ff., and in Dessoir, Jenseits der Seele⁶, pp. 214ff.

the publication of the paper that a particular communication would be found in a particular place.

It is of course possible to explain cross-correspondence by telepathy between the mediums. Regarding the newspaper tests referring to the future it could be said that the thoughts of the editor had been supernormally grasped. In the English booktests the latent memory of some living person could be appealed to. But all this would be rather forced. On the other hand, however, the results here are too fragmentary, and sometimes rather doubtful in their interpretation, so that further investigation must be insisted upon, indeed, very strongly insisted upon before the cautious investigator can use them as a basis for theories.

But there are already available established things, which can be thrown into the balance in favour of a monadic theory, even though they do not definitely affirm it. These things are often observed and thus are not so extraordinary and unusual as those mentioned briefly above.

I refer to certain characteristics of the structure of mediumistic trance statements or scripts. When the content of these communications is alleged to come from a deceased person, that is, when such is the opinion of the medium (and when thought-reading from a person who is present is excluded), then this content is almost always confined to the actual and latent knowledge possessed by this particular deceased person during his lifetime; and in many well-established cases the medium did not know the

deceased. Further, it often happens that the communications far transgress the decree of culture of the medium, while they conform to that of the alleged spirit. Moreover they often contain examples of the deceased person's form of expressing himself, special ways of talking, nicknames, and other mannerisms of his unknown to the medium.

So what we are here concerned with is not only the general content of knowledge which the medium could certainly have acquired by supernormal means only. The form in which this knowledge is presented has two quite definite characteristics: it is selectively limited and it is personificatory. Would it not be the simplest and least 'artificial' assumption that the person claiming, through the speech or writing of the metagnome, to exist and to be present really does exist and is present? In that case, the agent, that is, the person supernormally giving his knowledge to the percipient, the metagnome, would also be another 'somebody,' but not a living 'somebody.' William James already admitted that this assumption is the least artificial.¹

In order to consider the matter from a purely animistic point of view we should have to say that the medium taps the actual or latent knowledge of present or absent living persons. He 'might' get his knowledge from anybody. In fact, however, he always gets it, and that in a fragmentary manner, only from those present or absent persons who know

¹ Proc. S.P.R., xxiii. 120f. Cp. also vol. ii. of Myers's great work Human Personality (1903).

something about a particular deceased person or who once knew something about him and then forgot it. The fragments thus obtained are then tectonically combined by the medium in a form which entirely corresponds with the behaviour of the personality in question when still alive. The alleged 'spirit' would be a 'dissociated personality' of the medium, built up out of material obtained supernormally but not from 'the other side.'

Although this assumption by no means explains the selective-personificatory limitation of the communications, it would be difficult definitely to confute it, at least if the things communicated are confined to the actual or latent knowledge of some living person - as is indeed usually the case. In the Chaffin case,1 to which great importance is rightly attached, a veridical dream led to the discovery of a will, the hiding place of which was known only to the deceased person, who had died some years before. Here an explanation based only on a transference of knowledge between living persons seems to be very doubtful. Though on the other hand in the Gordon Davis case² we have truly 'selective' and 'personificatory' supernormal statements about a person still alive, who, however, was dead according to the medium! This could make us doubtful about monadism, which is of course out of the question here. But this case is isolated, while there are very many cases of the type first described.

¹ Proc. S.P.R. (1922), xxxvi. 517. ² Proc. S.P.R. (1925), xxxv. 471.

The strange thing here is the personification, and with it the unification of the supernormal communication, for the deceased was the only person who once knew all the facts that are communicated. Each of the living persons from the actual or latent knowledge of whom, according to the animistic theory, the facts must have been taken, knows only a fragment of the whole. Is not therefore the monadic hypothesis less 'artificial' here?

This is the point from which contemporary investigation should set out. For the question of personal survival remains the prime problem of all science, even though nearly all our 'official' philosophers and psychologists carefully eschew and pretend not to see it,¹ and even though certain groups of formalistic philosophers only admit 'significant' problems within the framework of mathematics.

In our opinion the selective and personificatory structure of so many supernormal communications suffices, at least, for a serious consideration of the monadic theory. At any rate, it gives an adequate explanation of the fact that the metagnome, who, after all, possesses supernormal faculties, looking at the matter quite generally from an animistic point of view, actually knows only quite specific things in a given case, things which once constituted the knowledge of a particular and now deceased person.

¹ There are many contemporary works on the 'nature of man' and similar things in which the problem of survival is not even so much as mentioned!

As all these things must still remain in a state of suspense, a definite decision being impossible, we will not enter on any further details and amplifications of the theory. The inquirer may read, if he chooses, what Mattiesen¹ has written about the 'dramatic' aspect of mediumistic communications, that is, the strange phenomenon in which several persons seem to be conversing behind the scenes, the medium becoming aware of what is said. This dramatic aspect has led convinced spiritualistic circles (and, for convenience, psychical researchers) to distinguish between 'Controls' and 'Communicators': the Control is the spirit directly influencing the medium, the Communicator the spirit who gives specific information to the medium and through him to other living persons, thus the Communicator (telepathically?) uses the Control for the purpose of (telepathically?) telling the medium something. Occasionally, however, he is supposed also to influence the medium directly. To this is added the distinction made by some spiritualists and already mentioned on p. 150, in regard to the manner in which the medium is used for the making of a communication. Is only telepathic influence in question or does a strange spirit sometimes 'use' the body of the medium directly?

Here we are of course more than ever in the region of things as yet unverifiable. However, it is not a harmful exercise to put down all these distinctions, even though they are created on a basis which is in

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¹ Der jenseitige Mensch and articles in the Zeitschrift des Revalobundes (later Zeitschrift für metapsychische Forschung) since March 1927.

itself uncertain. Moreover we may in this way get useful hints as to the directions in which investigation may be profitable.

It will perhaps be objected that all these strange characteristics of trance-communications, which are established supernormal facts, certainly exceed the framework of pure animism, but can after all also be explained by the hypothesis of the plan-bearing cosmic subject and do not give any direct preference to the monadic theory. For after all the cosmic subject contains personal 'plans' or at least 'catalogues' in it as mental contents. Could not everything be explained just as easily as by the monadic theory by supposing that the metagnome grasps a specific plan or catalogue in each particular case and that he bases his supernormal statements about a particular individual upon this? As has already been said, the framework of pure animism would in that case be already transcended.

In my opinion, the monadic theory is nevertheless to some extent preferable.

We will leave on one side the 'dramatic' construction 'behind the scenes,' for this may be subconsciously produced by the medium in the building up of the split personalities. But the selective-personificatory structure of the communications made by the metagnome can after all be understood in the most unambiguous manner on the basis of monadism.

These communications are of such a nature as to make one person, and indeed one specific deceased person, with all his most personal characteristics,

seem to be present. For the theory of a cosmic subject and its plans it would here be necessary to assume that, for instance, the manner in which radical modes of speech or so-called nicknames as used by a certain person are also recorded as parts of a certain plan or catalogue in the cosmic subject, and that they are found there by the metagnome. But does that not very nearly change the 'plan' into a real person, though one existing only as a mental content and is it not then a priori better simply to abandon the cosmic subject? Furthermore, is it not rather strange to assume that the metagnome in grasping the plans in the cosmic subject, retains in doing so such trifles as the things described, instead of retaining the things that were of really vital importance to the deceased? All this, however, is easily understood if the presence of a person trying to prove his identity is assumed (cp. p. 152 above).

A thorough study of all that is contained in trancecommunications shows that the theory of a cosmic subject and the true monadic theory harmonise to a considerable extent, with the important difference, however, that the plan or catalogue is only 'recorded' and does not survive. And it is precisely this important difference that we have to decide.

To summarise once more, the following possibilities present themselves in explanation of the form of the messages given, for instance, by Mrs. Piper or Mrs. Leonard.

Either - the animistic hypothesis of selectivepersonificatory thought-reading is used without restriction, since not only the minds of persons present would be tapped here, but also the actual and latent knowledge of absent living persons would be used to an unlimited extent. This hypothesis does not in the least explain why all communications in this case centre round a particular deceased person, who, according to this theory, would merely be an imaginary dissociated personality of the metagnome.

Or - the metagnome is supposed to read in the 'plans' or 'catalogues' of the cosmic subject. Here, because of the details contained in the messages, the plans become personalities, who, however, do not survive.

Or - the monadic theory is adopted.

The first hypothesis is definitely excluded if things neither now nor ever before known to any living person are really mentioned. Also, apart from this, it can lead to great difficulties, as we saw on pp. 158ff.

We will leave the final choice between the two other theories to the future. However, we will once more expressly point out that both, especially the monadic theory, merit close consideration, and that the monadic theory must not be set aside with a smile. To do so is merely to be muddled and to fear the 'modern spirit' and 'public opinion.' To be really 'enlightened' means to have an open mind regarding real facts of the universe.

As has already been said, we ourselves are more inclined towards the monadic theory than to that of the cosmic subject, because the extremely

personal trifles the medium produces, alleging them to come from a deceased person, can be better understood if the existence of the latter is assumed, than if it is supposed that the metagnome merely reads these objectively indifferent things in the 'life-plan.' For proving the identity of a person, however, these things, though objectively indifferent, are not at all insignificant.

d. Psychometry

We have still to mention the connection of supernormal mental phenomena with the strange fact of psychometry within the framework of the theory of the cosmic subject and that of monads. In this connection we will assume that there exists besides thought-transference a kind of clairvoyance that cannot be reduced to it (cp. p. 81 above), and it is with this that we will principally deal.

As in supernormal thought-transference the question here arises – how it is that the clairvoyant in each case never grasps more than a quite specific situation. Why does he not grasp all that happens or has happened anywhere?

Let us first of all deal with the former phenomenon, the perception of something that 'is' or is 'happening' somewhere, that is, purely spatial clairvoyance. This could be better, at any rate, explained by the hypothesis of exteriorisation mentioned above (pp. 138ff.), than by the theory of radiation, which, as we have seen (p. 123), only just suffices for some very simple cases.

It is different with clairvoyance into the past, and also with the correct supernormal perception of past situations not known to any living person.

Here psychometry enters on the scene, for the supernormal statements are nearly always made when the metagnome handles or at least sees an object which was somehow connected with the situation described, which was present when it occurred.

What has this object 'on it'? For there must be something 'on it' which enables it to reveal this specific situation and no other. The excellent experiments of Wasielewski, Tischner and Pagenstecher will be remembered.

In this context it has been suggested that the object is 'endowed with psychic energy.' Now such an 'energy,' to go no further at the moment, can only be acquired by the metagnome by means of a transference of radiation, as we have already seen on p. 128. As the theory of radiation is here impossible, the hypothesis of an 'endowment' with 'energy' collapses from the very beginning.

But to go on: the conception of an 'endowment with psychic energy' is after all no more than a meaningless combination of words. 'Energy' is the quantitative extent of a specifically homogeneous, that is, in itself uniform quality. Where, however, 'meaning' is present, as it is here, neither homogeneity nor quantity is in question. To talk here of an 'energy' is as meaningless as it is within the framework of vitalism.¹

¹ The Philosophy of the Organism² (1929), p. 256.

But what then has the psychometrical object, for instance, a piece of stuff belonging to the suit of a person having died in an accident, 'on itself'?

The psychometrical object is a fragment of matter. Matter is a combination of electrons and protons, whether one regards them as final elements or only as specific states of a true materia prima, as some modern physicists do. A specific state of matter at a certain moment, then, is a specific constellation of electrons and protons or perhaps a specific state of their motion at that moment. Such a constellation or such a state of motion or, briefly, such a 'state' is, however, at each moment of time only what it is, never what it was. In other words, so far as all our knowledge goes, we cannot infer the history of a material object, so far as it is 'material,' from its present state.

The psychometrical object, however, gives 'historical' information – so that which is 'on it' and which acts as intermediary in regard to the 'history,' cannot be something contained in its material condition as such. So it cannot be 'on' or 'in' the object, it can only be something 'relating' to it.

Now here the doctrines of the catalogue- or planbearing cosmic subject and of the monads again enter on the scene. To put it differently, our attempts at an explanation must abandon material hypotheses and turn to 'spiritual' ones. So much at least seems to be established. But how can such a transference be brought about?

If there is at all to be found an explanation related

to the hypotheses already put forward in other fields of psychic research without introducing entirely new things – for to do so would be against sound scientific methods – then it must be assumed that the psychometric object either, in accordance with the doctrine of the cosmic subject, gets into touch with its 'catalogues' or 'plans,' or, according to monadism, with the permanent monads. But such connections can only be mental.

Bozzano was justified in pointing out in his work on psychometry that the metagnome, at least in the well established and verifiable cases, does not really grasp the 'history of the object' supernormally, but rather the experiences of its former owner. With the aid of the object there is brought about a telepathic connection with him, be he alive or not (Bozzano is an outspoken monadist), or with something superpersonal.

Further, Mattiesen, within the framework of the hypothesis of a cosmic subject, has assumed an explicit connection between a living soul and a certain object, that seen or touched by the metagnome; this connection awakens associations referring to the object in the superpersonal subject in which the metagnome is supposed to read; and it is these associations that are then grasped by the metagnome.

If a monadic trend of thought is followed, then the personal soul which once had something to do with the object and which has preserved a representation of it in its memory, would be 'summoned'

upon the plan and would then telepathically (?) 'communicate' its associatively newly animated knowledge to the metagnome.

It will be seen that both theories are based on mental association, though not in a 'worldly' sense.

A definite theoretical decision in the case of psychometry is at present impossible, for psychometry is probably the strangest thing among all the strange things presented to us by our new science. Only the impossibility of a normal physical explanation can be regarded as established.

e. Conclusion

If we now consolidate all that we have just said about clairvoyance, with and without psychometry, it is seen that a great theoretical uniformity in the entire field of mental psychical research would be obtained by adopting the last hypotheses described. By their means all those things are brought into relation which seemed unconnected not only in our primary investigation, but also in the discussion of the problems which we named of 'second degree.' The supernormal transference of knowledge and clairvoyance would no longer be fundamentally separated, at least, on certain assumptions concerning the faculties of the mind.

The foundation is always the theory that body and mind are two different entities. Further, there is as a fundamental principle the theory that minds are capable of a mutual supernormal transference of knowledge in the *mental field* (cp. p. 133).

If this transference of knowledge clearly takes place between living personal minds, then we have simple 'animistic' telepathy and thoughttransference.

If animism is not adequate even though only that is in question which is called 'transference of knowledge' in an amplified sense, then either a supernormal connection between the living mind and the cosmic subject, or between the living mind and the personal deceased mind, must be assumed.

For spatial clairvoyance the hypothesis of exteriorisation must be introduced, for the temporarily disembodied mind directly, though supernormally, 'sees' situations.

If clairvoyance into the past, mediated by psychometry, is concerned, then according to the postulated theory it is not really clair- 'voyance,' but a supernormal thought-transference associatively mediated by the object either between a living mind and the cosmic subject, or between a living mind and a deceased personal one.

Supernormal transference of knowledge becomes the basic fundamental fact, apart from the faculty of 'seeing,' mediated by an exteriorisation, in spatial clairvoyance.

If we admit prophecy, then either the 'eternal' plans in the cosmic subject must be referred to, even on the assumption of monadism, or the bodiless monads must be endowed with a faculty of calculating far surpassing our own.

¹ Cp. the note on Pagenstecher, p. 73.

We can take so far the consolidation of all things in the paramental field.

As to the paraphysical domain – if its reality is admitted – we have interpreted all phenomena taking place in connection with a living person on the lines of a kind of super-vitalism, in connection with an amplification of the theory of suggestion (cp. p. 119).

Thus there is here ascribed to the living mind a faculty which is in a sense 'new' in relation to the normal, a faculty which, however, is connected with normal things. As has already been said, exteriorisation, though only required for spatial clairvoyance, is such a 'new' faculty in the mental field, and one incidentally, which, as we said on p. 138, can perhaps already manifest itself in a deep narcotic state.

If paraphysical happenings apart from the body of a living person (phantoms, hauntings) are admitted, then the faculty of 'materialising' must somehow be ascribed to the cosmic subject or to the deceased monads, just as in the mental field things had to be ascribed to them which *de facto* are only known of living minds. In each case there is a transition from the earthly-personal domain to something different: in the doctrine of the cosmic subject to the non-terrestrial superpersonal, in the doctrine of monads to the non-terrestrial personal.

Thus a great theoretical uniformity has been created for the entire field of psychical research.

But - this has been done only hypothetically and to begin with by means of working hypotheses. And it must by no means be supposed that everything would be understood even if the decision had clearly fallen in favour of the doctrine of the cosmic subject with its plans or in favour of the doctrine of monads. To mention only a few points: prophecy would only be grasped quite vaguely. And similarly hardly anything would be known about a question which is not at all unimportant, though it may seem to be so: how is it that in each case of supernormal transference this specific agent and this specific percipient (or in clairvoyance, this specific supernormally 'perceived' object) really 'get together'? It is of no consequence whether the agent, that is, the subject giving its knowledge, is a 'plan,' a living monad, or a deceased one. And how many other special problems are unanswered!

So the theory would be by no means complete with a definite decision in favour of one of the great hypotheses! Probably this decision will, on the contrary, first be possible when many detailed investigations in restricted fields are in some degree complete. This, however, can only be attained by an investigation of facts.

The thorough and certain investigation of facts will thus for a long time to come be by far the most important task in our subject. But hypotheses are permissible if it is borne in mind that they are hypotheses; they are even permissible in regard to things that are not sufficient established factually, as is unfortunately the case with all paraphysical phenomena, although in such cases they are no more than the discussion of logical possibilities.

AFTERWORD

The title of this book expressly describes psychical research as a *science*, and indeed if the writer had not regarded it as a science he would not have written his book. For he has no interest in the vague doctrines born of faith.

Now all science is rational; not, indeed, in the sense that it believes or is entitled to believe that it can call forth empirical truths by 'pure reason,' but in so far as it may believe itself to be capable of grasping types of order, that is, the things usually called laws, with the help of that instrument which is called reason or intelligence.

In this sense psychical research is quite as 'rational' as, for instance, chemistry. That it finds new laws which look strange at first sight is due precisely to that which is 'given.' Certain fields of empirical reality are in fact 'strange,' which means no more, after all, than that they have only recently been established as real and have been only little explored.

'Miracles' are by no means in question; miracles, if admitted, are breaches of the natural laws occurring only once. Their unique occurrence is their essential characteristic. All parapsyschical things, however, are law-abiding.

'Mysticism,' similarly, is not in the least in question, unless everything based upon 'given' things,

and therefore not entirely understood, is called mystical – a definition which would include chemistry. Mysticism in its true meaning, as some philosophers have put it forward, is a specific philosophical attitude based upon the belief that man is capable of intuitively grasping the essence of reality directly without the intermediary of reason. We know of few things from which we are as far removed as from mysticism. If my vitalism has occasionally been called 'mysticism,' this has been due to an utter misconception of the meaning of the word.

I do not mind if psychical research is called 'magic' – for this only means that the things with which this science occupies itself are but little explored as yet, and, as it were, little in hand. In this sense of the word primitive peoples regard Europeans photographing them as 'magical' beings.

In reality psychical research is truly enlightening. For all knowledge investigating forms of order, that is, laws in the world as it really is, is enlightening.

Nobody can know without experience or a priori, to use the customary philosophical term, what sort of laws there are likely to be. Anyone who imagines himself to be in the possession of such knowledge deceives himself (and unfortunately often also others). Only the principles of general logic and mathematics are a priori obligatory for all possible kinds of knowledge – they and they alone.

Thus every world not contradictory in itself would be possible in a *logical*-mathematical sense (Leibniz says *possibile*); legends and fairy-tales

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present us with such 'possible' worlds. What is really possible (Leibniz says compossibile) we are taught only by experience; and it always teaches us in a manner which is only provisional and open to correction, because we know reality only in fragments.

Of course newly alleged realities, which do not appear to be objectively possible on the ground of the experience hitherto acquired, must be treated with caution. Their existence will have to be 'established' with the greatest care, for there are many sources of error and deception. This is precisely what we have done in the first part of this work.

That which has been objectively established out of all the infinite logical possibilties, so that it is proved to be 'real' and thus also actually possible, must, however, be accepted; it is not permissible to put it aside and refuse to see it.

He who thinks he can decide a priori what is objectively possible and impossible, and then shuts himself off from established facts, does harm to true enlightening science.

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