

.

,



.

. .

THE COMING SCIENCE



THE COMING SCIENCE

BY

HEREWARD CARRINGTON, PH.D.

AUTHOR OF "THE PHYSICAL PHENOMENA OF SPIRITUALISM," "MODERN PSYCHICAL PHENOMENA," "PSYCHICAL PHENOMENA AND THE WAR," ETC.

WITH AN INTRODUCTION BY

JAMES H. HYSLOP, Ph.D., LL.D.

FORMEBLY PROFESSOR OF LOGIC AND ETHICS, COLUMBIA UNIVERSITY; AUTHOR OF "SCIENCE AND A FUTURE LIFE," "'PSYCHICAL RESEARCH AND THE RESURRECTION," ETC.

NEW YORK

DODD, MEAD & COMPANY

17-2 12

Copyright, 1908 By Small, Maynard & Company (INCORPORATED)

Entered at Stationers' Hall

Copyright, 1920 By Dodd, Mead & Company, Inc.



© ULA 565243

PREFACE TO THE NEW EDITION

THIS book-first issued in 1908, and now republished-is intended to constitute a "primer of psychical research" --- an Introduction to the subject, for those who have not as yet read extensively upon it. I have endeavored to make clear why it is that the study of this subject is so important, and why it may in truth be called "The Coming Science." More and more, we are realizing that religion and spiritual ideals are losing their hold upon the public mind; that materialism is rapidly gaining ground-where it is not offset and, as it were, "antidoted" by the facts of psychical research. Here and here alone is to be found a true solution of these world-problems. Here and here alone is there any evidence of a future life, or of the higher spiritual powers of man.

Additional light upon these obscure problems has been obtained since the issuance of this book, in several directions. Thus, the newer dream-psychology has made great strides since then; a better understanding of hypnosis and kindred states has been rendered possible; the newer studies in "physical phenomena" have, in some cases, been very striking; but the book will, I believe, constitute a simple and

PREFACE

clear presentation of evidence and theories, and will remain practically unaffected by the newer evidence. The latter may, in a sense, *supplement* the evidence herein presented; it will in no wise *affect* it.

The final Chapter of this book deals with Eusapia Palladino; and it is hardly necessary to add that, since this was written, I have personally witnessed *all* these phenomena myself, and have been compelled to accept them as genuine. My own experiments with this remarkable medium I have detailed in my books, "Eusapia Palladino: and her Phenomena," and "Personal Experiences in Spiritualism," and the interested reader is referred to these for this material, and for a historical summary of the evidence to date.

I can only hope that this little book—by attracting the attention of some readers, and by directing their reflections, perhaps, upon these problems—may help the cause of psychical research and assist in founding the "Coming Science."

H. C.

PREFACE

N presenting the following book to the public, I wish to say, first of all, that I must not be understood as endorsing or even as accepting all the views and theories that are advanced, from time to time, throughout the book. I have offered these merely tentatively, and merely as possible explanations for facts that, on the strength of existing testimony, I have assumed to be established. Readers of my other, more cautious books upon this and other subjects will see that I have not been unwary in approaching this question; and I do not wish to draw upon myself the charge of credulity merely because I have presented certain theories in this book that, from the standpoint of orthodox science, may appear somewhat 'wild.' Having absolved myself in this manner, I leave the reader to find in the text whatever he can of interest or profit.

A certain lack of connection and coherence may be found in the chapters of the book, due to the fact that some of these essays have appeared, in part at least, in the *Journal* of the American Society for Psychical Research, *The Metaphysical Magazine*, and elsewhere. This is to be regretted, but could

vii

PREFACE

not very well be helped. The opening chapters are devoted to a defence of the legitimacy of the study and replies to various attacks from various sources. This the reader will see for himself.

One word more. This book is not an attempt to establish any of the facts, but is rather a discussion of theories that might be invoked in order to explain the facts, once they have been established. The reader who is unconvinced will find little to convince him in this book; the facts will be found well summarised in Professor Hyslop's four books, in the publications of the English and American Societies for Psychical Research (hereinafter referred to as the S. P. R.), and in other works upon this subject. Very little has been said, however, in accessible books, in the way of explanatory hypotheses; and these I have endeavoured to make the principal factor in the present book. It is hoped that this will be of interest to the public, for the very reason that so little of an explanatory nature is said in the current books.

My best thanks are due Prof. James H. Hyslop for his kind Introduction.

H. C.

viii

CONTENTS

CHAPTE	R PAGE	1
I.	THE COMING SCIENCE	
п.	THE PHILOSOPHY OF LIFE: OR THE POSSIBILITY	
	OF A SCIENTIFIC OPTIMISM 14	
III.	PSYCHICAL RESEARCH: REPLIES TO OBJECTIONS 43	,
IV.	HAECKEL'S "LAW OF SUBSTANCE" AND IMMORTALITY 90	,
v.	THE ORIGIN AND NATURE OF CONSCIOUSNESS . 114	
	Ensuing Correspondence 139	
VI.	THE PROBLEMS OF HYPNOTISM 179	
VII.	THE PROBLEMS OF TELEPATHY 192	
VIII.	THE PROBLEMS OF SLEEP AND DREAMS 204	
IX.	MODERN SPIRITUALISM: A BRIEF HISTORICAL	
	Résumé	
X.	THE CASE OF MRS. PIPER	
XI.	ON THE INFLUENCE UPON THE COMMUNICATOR'S	
	MIND OF OBJECTS PRESENTED TO THE MEDIUM 257	
XII.	THE NATURE OF APPARITIONS	,
XIII.	EXPERIMENTS IN WEIGHING THE SOUL 285	,
XIV.	HAUNTED HOUSES: THEORIES	ļ
XV.	HAUNTED HOUSES AND THEIR CURE	
XVI.	PREMONITIONS: FACTS AND THEORIES 348	,
XVII.	EUSAPIA PALADINO AND THE PHYSICAL PHENOMENA	
	OF SPIRITUALISM	1
XVIII.	Conclusion	
INDEX	•••••••••••••••••	

,

INTRODUCTION

MR. CARRINGTON has asked me to write a brief introduction to his book on psychic research, and I am glad to comply with his request. He has here covered in a very clear and intelligible way the main points of interest in the problems which concern the psychic researcher. The book assumes that the facts are known or easily accessible to the reader in the publications of the Society for Psychical Research, and hence the main part of the author's task is discussion of their real or possible meaning and explanation. The chapter on telepathy I cannot help thinking is a very conservative and cautious one; for the general public has used that idea so freely that it is constantly assumed to be a well-known and well-understood phenomenon. It is far from this, and yet is the least that a psychical researcher can accept in regard to certain facts. Mr. Carrington brings out clearly that it is not to be regarded as an explanation of anything, and is only a name for facts requiring such an expla-This is of all things one of the most imnation. portant qualifications with which the term is to be used. Moreover, it is well to keep in mind that

xi

INTRODUCTION

even, as an alleged fact of the supernormal kind, it is not a generally accepted phenomenon in the scientific world. Only a few men seriously believe in it, and others are willing to speak and think of it tolerantly in order to escape a profounder alternative. But no intelligent scientific man will think or speak of it with that confidence of feeling that he indulges in with regard to physical phenomena, or think that he understands it. Whatever it is, as a phenomenon to be explained, its meaning and explanation are still *sub judice* for the scientific world.

On the other topics of the book Mr. Carrington furnishes no less interesting discussion, and I have no doubt that readers will find the matter exceedingly helpful in directing their reflections on them. The whole subject has been left by the more responsible educators of the community to a public which has not been directed by the traditions of science, and the consequence is that speculation runs riot in theories for which there is no adequate evidence. It is high time that some such conservative discussion as this little book affords should receive intelligent attention.

JAMES H. HYSLOP.

THE COMING SCIENCE

THE COMING SCIENCE

CHAPTER I

THE COMING SCIENCE

THE majority of persons, upon seeing the title of this book, will at once ask: What is the Coming Science? I do not doubt that many will think that this consists of the newer discoveries in physics and radio-activity, about which we are hearing so much to-day; others will think that it is biology; others psychology; others electricity, and so on - in fact, each will construe the title differently, according to his beliefs in the possibilities of the subject mentioned and in proportion to his interest in it. Thus the person interested in the newer discoveries in physics will think that the first of the above-mentioned departments of science will be the one most cultivated in the future and that from which most is to be hoped by coming generations; those interested in psychology will think that that is the subject of study for the future; and so on, each one thinking that some certain department of science will be the one most in evidence in the coming years, though never neglectful of nor blind to the possibilities

of the others. To my mind the Coming Science will not be any of those just named, but will be one that is not as yet recognised as a science at all, properly speaking, by the majority of scientists. I refer to what are known as psychic phenomena, and the Coming Science is psychic research. Although this statement may arouse the ridicule of many of my readers, I think that there are facts to support it and that far from being irrational, this is the logical outcome of modern thought and will represent an extension of our present-day science in the right and logical direction. I shall now attempt to lay before the reader a few of the many reasons that have forced me to believe this to be true, and shall endeavour to show that the outcome is only what is to be expected from a close study of the facts.

In the process of time, the world has passed through various stages of evolution. First of all, there was the purely animal stage (I am referring now only to man), and in that era brute force was the ruling power; it was this that was most admired and upon which life depended. Then the era of *mind* began to dawn. It was discovered that cunning and skilled planning could overcome the power of pure force, and man began to cultivate and desire mind more than brute strength, and evolution began to tend in that direction.

 $\boldsymbol{2}$

Less and less space within the organism was devoted to the digestive functions and other animal propensities, and more to the higher thinking and feeling and willing organs. A study of comparative anatomy will prove this. So, as man ascended in the scale of evolution, mind became the all-ruling and preponderating element, and animal force became less prominent and less admired. Mind was first of all devoted, probably, to the furtherance of the desires of the individual organism; but later it spread over wider areas and extended to higher and broader spheres; pure, abstract thinking became possible, and altruism, or thought of others besides self, began to show itself through the darkness that had until then reigned supreme upon the world. And with this higher knowledge began to develop that spiritual self and consciousness of which we are just beginning to catch the first signs, and which is doubtless in its very infancy in the realm of higher knowledge. This spiritual side of man, that is just becoming manifest, may possess powers and potencies as great, as relatively great when compared to the purely mental world, as that was above the physical and animal world. A creature living on the first plane would be totally incapable of appreciating any of the joys and possibilities of one living on the second or thought-plane; and, by analogy, it is

7

more than probable that we, of the second plane, cannot appreciate or understand the possibilities and returns of those who have at least tasted or faintly perceived the third or spiritual plane. The aspirations would be different; the same joys would not be sought by both; and those of the third plane would be superior to many of the desires and appetites of those living on the second or mental plane — just as they in turn would be superior to those of the first. This would seem to be borne out by the fact that yogis, and perhaps certain mediums, who have (so it is claimed) risen beyond the second into the third plane, are independent of many of the things felt to be necessities by those on the second plane. Their desires and aspirations are of a different order, and with them what is most desired is spiritual growth and development; material and mental growth are not sought for and desired as they are with us. But to desire that development it must first of all be tasted, - in a trifling degree, perhaps, but still tasted, --- and the germs and the possibilities must be present within the being of one capable of desiring such advancement. As Professor James pointed out many years ago, a man is only jealous of one who excels him in his own line of work, and although he (speaking for himself) would feel ashamed if any man knew more psychology

than he, he did not at all mind if many men excelled him in botany or billiards or prize-fighting or in a number of other pursuits and studies, though the botanist or the billiard-player or the prize-fighter would feel ashamed to be beaten by anyone else in his own special line of work or occupation. This shows, merely, that we only desire, *ceteris paribus*, what is an ideal possibility; and if we are capable of feeling and experiencing envy (in its best sense) for another more developed than ourselves in any certain direction, it shows that we have some of that very thing in us; and more, that we are, unconsciously perhaps, striving to excel in that line of endeavour.

Now, I think that there are few of us who do not admire, not to say envy, any man or woman in whom this spiritual side is highly developed. We wish that we also had their capacities in this direction, and we endeavour to emulate their example — often to the betterment of ourselves, as we know. This shows us conclusively that there is in each of us a hidden spiritual side, which needs only to be developed in order to be brought into full blossom — foregoing, perhaps, many of the so-called delights and pleasures of this world in the attempt, but, we may be assured, reaping a reward at some time, in some place. A spiritual side is latent in all of us, awaiting its development. What is this unknown, spiritual side? Whence came it, and what are its capacities? These are some of the questions to which we must now address ourselves.

 \rightarrow During the past two hundred years, science has been devoting her energies (rightly) to the physical sciences — physics, chemistry, anatomy, physiology, astronomy, etc. It is only of late that psychology has risen to a place among the other sciences, while philosophy and metaphysics are still laughed at by many scientists as mere idle dreams or as pleasant ways of passing time that might be more profitably spent in other pursuits. It has never seemed to occur to these scientists that the conclusions drawn from every one of their facts are, at basis, metaphysical, and that all science, inasmuch as it is systematic, must be philosophical! This is now recognised, it must be admitted, to some degree, and the old antagonism to these subjects is fast disappearing; but they are yet looked upon as in some way inferior, and dependent upon the physical sciences for their value and existence. Of course this is not true in the sense that it is generally understood; but I think it quite right that science should have devoted her early time and energies to a close and systematic study of the objective world, and to have ignored all else. Only in that way could any real progress have

been made at a time when so little was known of the universe in any part of its parts. But there is no reason for continuing this resentful and intolerant attitude now that we have placed science upon a sure foundation; and we are learning slowly but more and more surely every day that behind and beyond this material, seen and phenomenal world there is yet another world of causes — that which produces the effects we perceive. We find that every one of the physical sciences comes to a point where it can go no further, and this has proved to be the case even with such material sciences as chemistry and physics. Ten years ago it was one of the very fundamentals of science that the material atom was the most minute particle of matter in the world, and that from it this and all other worlds were built: that it was indivisible, unchangeable and eternal: it formed the very foundation stone of the universe. But now we find that these atoms have been split up and divided; we have now an 'electrical theory of matter' which has verily explained away matter altogether, so that we are no longer entitled to think of it as matter at all, but as something else, itself immaterial! This being so, it will be seen that we are entitled to doubt whether any such thing as a material world exists at all, in the sense in which it is generally understood, and that matter and the seen and tangible world recedes into the unseen and intangible world of force and causation. "Matter" no longer means what it did a few years ago; it exists only as a name; and soon we must begin to study the forces that lie behind matter, of which it is the active manifestation. The world of causes and forces lies before us, an unopened book. In the past we have been studying merely the world of products and effects.

Let us take a simple example by way of illustration. Two chemical elements combine to form a new substance (so-called) with properties different from either. This has occurred because there has been operative a certain force, called for convenience chemical affinity, which has caused this great change and brought these results to pass. The effects of this force or of these forces have been studied, the new product has been analysed, weighed and classified; but little attention has been given to the force that produced these changes the chemical affinity. What is this force which produced the change? It may be classed, with others, in the Law of Conservation; but does that do aught but classify it; does it in any way attempt to explain it? Surely not! The law of this force may have been determined, but the nature of the force is still a mystery.

I contend then that the study of these forces - these noumena - should be that which most occupies our minds during the coming century; it will be a century for work in and study of causes rather than effects. And more, the course of science will swing round into a study of the mental forces and powers of the universe; partly because all other forces will be traced into an unseen world. equally with consciousness; partly because this world presents a wider field for inquiry than any other, since it is in its infancy in every stage; and thirdly because, I am assured, the key to many other facts in the universe will be found in this world of mental forces and causes. This is too large a problem to discuss here; I mention it merely by way of suggestion.

Let us now take up for discussion the most important factor of all (to us). We have been speaking of the physical sciences, etc., without bearing in mind that every fact known to us must be acquired and retained in *consciousness;* that is, in that side of man which raises him far above the animal world in every respect, even enabling him to overcome or offset its greater strength by his mind alone. Consequently a study of consciousness is by far the most important study of all, for it is only by and through consciousness that all else is understood and perceived. I have discussed the relation of consciousness to the organism elsewhere, as well as some of the problems that arise from a study of these facts, and they need not and cannot be discussed here. I wish to touch in this place upon only one side of it — what may be called the religious consciousness — that side of man which concerns itself with the origin and destiny of the human being, or in academic phraseology, of the 'soul.'

All religions are based upon the double idea of some all-seeing deity, and upon the persistence of consciousness or the "immortality of the soul." But of late grave doubts have arisen in every thinking man's mind as to whether either or both of these facts are true; whether there is any such deity, or if the soul continues to exist after the destruction of the physical organism. The first of these problems would lead us too far astray, and we cannot now stop to consider it. We shall, therefore, concentrate our attention on the other problem, whether consciousness can and does persist after the death of the physical body; and if it be shown that it does so persist, then this problem will have been solved and one of the great stumbling blocks removed. If it can be shown that consciousness can persist apart from brain activity and a nervous system, then materialism

will have been overthrown and another interpretation of the universe rendered possible.

As before stated, all religions are based, more or less, upon this idea that the 'soul' exists apart from the physical body; but none of these religions offers us any evidence of that fact. For the evidence we are referred back to certain facts that happened many centuries ago, and no additional or contemporary evidence is vouchsafed. Now materialism asserts that consciousness is bound up with a material brain and that, apart from such a brain, there can be no consciousness. If it does so persist, says materialism, where is your evidence for that fact? And apart from certain phenomena called psychic, there is no evidence whatever that materialism is not true. At least we could never offset or disprove its claims. But if it can be shown that certain facts actually occur which are inexplicable and cannot be accounted for on any theory of materialism, then the existence of psychic facts will have been established and the persistence of a soul of a conscious sort, after death, also proved. It will be seen that this subject at once assumes a look of gigantic importance. Whether or not such facts occur is one of the most important questions, if not the most important question, before the world to-day, for

the reason that a whole world-philosophy is based thereon. Psychical phenomena offer the only proof that we can ever obtain that a soul or consciousness can exist apart from brain functioning, and it consequently becomes a matter of the first importance to ascertain, if possible, whether such facts actually exist, or whether they are one and all hallucination and the results of fraud and a disordered imagination.

It is not the province of this book to establish those facts. A much larger work would be needed to accomplish it — if indeed it could be done. Hundreds of volumes full of such evidence can be obtained, and to these I would refer the reader who is unconvinced of the facts. It is my purpose merely, in the present volume, to point out that this is, or should be, the problem or science of the coming century — to ascertain as far as possible how far these so-called 'facts' are such in reality, and then, granting for the sake of argument that the facts are really established, to discuss theories that would in some way account for them. The establishment of the facts will necessitate the work of many men over a period of many years; the present book is merely an attempt to point out certain of the difficulties and problems that must be faced and overcome in the investigation of such phenomena, and a general and

theoretical discussion of theories that must be advanced to account for the facts when once established. It is one of the most interesting and fascinating of fields for the worker — this borderland between mind and matter — and may in truth be called, at this stage of investigation, the Coming Science.

CHAPTER II

THE PHILOSOPHY OF LIFE: OR THE POSSIBILITY OF A SCIENTIFIC OPTIMISM ¹

THE laws of health, the great laws of hygiene, are all very important - indeed, one might say fundamentally important - because, unless one knows what the laws of health are and consciously or unconsciously obeys them, there can be no lasting health. Without health there can be no real happiness - no true life; for "good health" does not mean only, as its consequent, a clean physical organism, i. e., a healthy animal, but also a more highly educated and advanced, a more moral and spiritual individual, since the bodily health, reacting upon the organism, does, without any doubt, affect both the mental and the moral natures of man; and for this reason, if for no other, a study of the laws of hygiene becomes of the very highest importance.

But in these considerations we must never lose sight of the fact that all these laws are but so many means for the gaining and preserving of perfect health; *i. e.*, they are not ideals in or of

¹ An address before the Health Culture Club of New York, read at the meeting of Sunday, Jan. 28, 1906.

themselves, any of them, but merely so many means by which we can regain and preserve our mental and physical equilibrium; while (and this is a point which I wish particularly to emphasise, since it may seem to some a rather novel aspect of the case) health is not itself a real, ultimate ideal, either! Good health is (or should be) sought only to enable us to perform our daily tasks and duties unhampered by physical disease; to reach our highest mental and spiritual attainment without the constant depressing influences and harrowing, soul-racking infirmities with which bad health and disease saddle us. Health is not an aim or an end in itself; it is merely a condition — that condition which best enables us to perform, with the best possible results, whatever of life's duties it may be ours to undertake or attempt.

Of course, if we are actually *diseased*; if we are not enjoying the best possible health; if we are oppressed and weighed down with some bodily infirmity, then health does become, for the time being, a real and ultimate end and aim — in fact the first and most important factor in our lives: for if we do not recover our health, we are not free to pursue our lives and achieve that which we set out to do; but once restored to good health, we should simply follow nature's laws — enabling us to remain in that condition — and then forget the body so far as possible. Health, once attained, should be *used* for the purposes of our daily life.

The normal conditions having thus been restored, being free to develop ourselves along our chosen lines, the question now arises, What is it that we are to develop? What should be our object in life? In short, why are we here; for what reason are we living at all? These are the important questions which I shall endeavour to answer — in part at least — in the present chapter; and though my manner of treating the subject may not meet with the approval of many of my readers, I trust that we shall in the end find ourselves in no lasting disagreement.

As I conceive it, then, our *personality* is the thing we must consider,— the chief object of our life being to attain its greatest possible degree of development along some certain, definite line of work. This should be our true end and aim of life; but as I shall speak of this at greater length later on, I must be content for the present merely to state my position and to pass on to other, prior considerations.

And first I would point out that before we can possibly achieve the greatest development of our personality, we must know something, at least, about it. We cannot possibly obtain the best results from a machine about which we know nothing, and most certainly this is true of our mental and physical selves. So that our first consideration will be this of attempting to understand our 'selves.' But just here I would point out that throughout all this we must be influenced by our conception of the character of our own personality — in what it consists — and this must, therefore, claim our attention before aught else.

Our outlook, then, will be coloured by this consideration: whether we consider ourselves the resultant of mere physical forces and so-called matter — our mental and spiritual life being but the offshoot of these (this being the position of materialism)— or as a spiritual essence or entity having persistence. Our entire viewpoint will and must be altered by whichever of these views we adopt, for our philosophy of life must be shaped and built upon either one of these two positions. It accordingly becomes our duty to examine, briefly, each of them in turn, in order that we may arrive at some clear understanding of the problem before us.

Now nearly everyone we meet grants himself to be a spiritual entity, and would indignantly repudiate the idea that he is a materialist or in any way materialistic in his outlook. Nevertheless his idea of a future life is beyond question very vague, dim and uncertain; and above all, he

takes no active, vital *interest* in the matter one way or the other.¹ The man-in-the-street never --- or hardly ever - allows these considerations to enter into his life at all; he accepts them, yet never allows them to interfere with or influence his daily life and his actions in the slightest degree. He utterly fails to see that the idea of continued survival — of a future life — and of his making here and now the conditions of that life, must here and now shape his life and mould his ideas. He never allows the thought to be truly felt by himself, or to influence his life in the least. On Sunday, it is true, he attends church — more as a kind of social function or duty than because any truly religious spirit stirs him to go: but throughout the week his religion influences him and his life not a particle; he is blankly indifferent to both — a truth which Robert Louis Stevenson so forcibly pointed out in his beautiful "Christmas Sermon." He has, in fact, been living the life of the materialist while professing to be a spiritualist (in the broadest sense of the term), and yet all the while he takes it for granted that he 'has' a soul, and that the fact is obvious and indisputable, and be-

¹ Prof. F. C. S. Schiller conclusively proved, by means of a statistical inquiry, how very indifferent the public, as such, is on this question. See his paper on "Human Sentiment as to a Future Life," *Proceedings* S. P. R., Vol. XVIII, pp. 416-53. comes highly offended if anyone, in the honest search for Truth, ventures to doubt that fact, upon what he considers good ground!

On the other hand — and as opposed to this hypocritical and bigoted and narrow outlook ---the scientist has almost invariably made a close personal study of this subject; and upon it he is far more entitled to a hearing than the average man or woman who has not taken the trouble to investigate the question at all - taking the whole thing for granted and settled. The scientist's researches do not, as many think, confine him to the investigation of 'dead' matter at all, but, if he is a philosophic scientist (as nearly all are bound to be nowadays), they will force him to consider the greatest problems of death and futurity, and to apply all his ability and ingenuity to an attempt to solve them. As the result of these investigations he has often returned the verdict "Immortality is a superstition - an impossibility!" And although he may not be ultimately right in this verdict, I would point out that he is nevertheless entitled — not to sneers and ridicule as many think - but to praise for his painstaking care and zeal and earnestness in thus making a close, personal study and taking a vital interest in those subjects which the man-in-the-street (who accepts a future life) does not take, and whose faith is

such only, and not founded upon close study and personal and painstaking investigation, as is that of the scientist.

Now the reason why so many (in fact the vast bulk) of the people accept a future life is, I believe, because they have never considered the scientific and philosophic objections to it --- those reasons which, to the scientific mind, are stumbling blocks in the way of its acceptance. And since the man of science is, as a whole, most impartial and open-minded, and since he has doubtless studied these questions more exhaustively and impartially than the man who accepts the whole question as settled before investigation, it behooves us at least to consider those objections which, to the man of science, are conclusive against any such possibility as a life hereafter. I cannot now, of course, even touch upon more than two or three of the leading and most important objections to the possibility of a future life; and in those cases but briefly.

To many minds, then, the now all but universally accepted doctrine of evolution is a very great reason for our non-acceptance of any future life in any form; for on that theory our mental life is directly traceable to, and is but the higher development of, the mental life of the lower organisms from which it has ascended by a gradual chain, a series of steps in the evolutionary process. And

the mental life may be traced in a continuous, almost unbroken chain, down, down the scale to the very lowest animal forms — aye, even into the vegetable world; and the vegetable life may be traced, ultimately, into the inorganic world — to simple chemical reaction; so that the position of many scientific men is that there is no more reason to suppose that our own mental life continues to exist, and that we are entitled to 'immortality,' than that all animal and vegetable life, and even chemical action, is entitled to 'immortality.' ¹ And this position is at least logical.

Another objection is found in the fact that our mental life is, beyond a doubt, so intimately bound up and associated with cerebral changes; *i. e.*, those nervous changes that take place in the brain substance whenever we think. Mix poison with the blood of any individual and see how quickly his mental life will become unbalanced — even cease altogether (apparently); while we know that, in many types of disease, these same phenomena of mental derangement occur. Above all — and the most convincing argument to many minds — is the fact that we can, by surgical operation, remove a certain portion of the brain-substance and with its

¹ This statement is hardly quite accurate; it represents only the very extreme school of which Professor Haeckel may perhaps be considered the most noted champion.— H. C.

removal will vanish a certain section or part of our mental life. "Piece by piece, section by section, as the physical and obviously material brain is removed; so bit by bit, and little by little, the mental life disappears, until not a vestige of it remains."¹ All this "most certainly tends to show that our conscious existence is absolutely dependent upon our very material brain."

Finally, there is the objection that thought and cerebral changes are, apparently, so inseparably united that the one cannot possibly exist without the other. For every thought we think, for every mood, emotion or fact of consciousness, there is, corresponding to it, a certain definite change in the brain tissue; and that that correspondence and correlation has now been established beyond doubt, there can be no question. We must accept it as a proved fact, whatever view we adopt of our mental life and the possibility of its persistence. But this being the case, the materialist might, and indeed does say, "Well, since this equivalence and correlation is always present, what proof have we that mental states or so-called consciousness can exist apart from such cerebral changes? That is, when the brain ceases to exercise its functions, as it most certainly does at death, what proof have we

¹ See Chapter V on "The Origin and Nature of Consciousness," below, pp. 114-78.

that our mental life continues to exist; in fact how *can* it, since, in this life, it is always bound up with and inseparable from these cerebral changes?" In fact the whole question can be resolved into this: When the brain ceases to exercise its functions, what evidence have we that the consciousness continues to exist? And if we have no such evidence, then the presumption is certainly all against our accepting such a thing as a future life of any sort; for, since there is no positive evidence that such is the case, and since consciousness cannot, apparently, exist apart from the functioning of nerve-tissue, then the idea of a future life must remain an unproved dream, a figment of the imagination, which the man of science must consequently reject; and this position is, it appears to me, a perfectly logical and conclusive one, so far as it goes.

If this position is ever to be overthrown, therefore, the evidence must be *scientific* evidence, and the reasons produced *facts*, since no amount of theorising and no religious faith can possibly influence the mind of the man of science, to whom facts and evidence alone appeal. If immortality is to be proved, therefore, the man of science must be met upon his own ground and definite facts and evidence produced which will offset those advanced by the materialist — such as will definitely

establish, upon scientific grounds, the possibility of man's survival of bodily death; and this evidence can only come from such facts as will tend to show that consciousness does continue to exist after death — where most certainly there is no brain functioning for it to be associated with. If, therefore, we can produce certain facts and evidence which seem to prove the operations of a consciousness actively at work, and most certainly not connected with any material brain, then we shall have the right kind of evidence to take before the materialist, and we can say to him, "Here is the evidence you seek; here are certain recorded facts that tend to show that consciousness *can* exist apart from brain-function, and consequently that immortality is not only possible, but certain and demonstrable." And I must insist again upon the fact that this is the only kind of evidence that will ever be received by the scientific world as proof of man's survival and of immortality. It is, in fact, the only proof conceivable.

Now in the phenomena of *psychical research* we find (and only here can we *ever* find) such evidence; for in these phenomena we have certain facts brought before us which can certainly be explained very readily upon the assumption that the consciousness producing the facts or furnishing the evidence is still existent, and are apparently most

hard, if not impossible, to explain in any other manner. Into the quality and quantity and character of this evidence I cannot go here. Almost all readers are probably too well aware of the general phenomena and results of psychical research to render such a detailed exposition necessary, dealing as it does with supernormal mental states and conditions: trance-mediumship, clairvoyance, telepathy, dreams, apparitions, haunted houses and the like. Such phenomena as these, carefully studied, have supplied us with an abundance of information and of facts which, while they bear out the spiritistic interpretation, certainly seem hard to reconcile with the materialistic hypothesis. They do, in short, present us with certain evidence pointing, at least, to the conclusion that here, in such phenomena, is the evidence — here are the facts required — to prove beyond reasonable doubt the fact that consciousness does and must exist apart from brain-function, by producing such evidence as will render the acceptance of that truth unavoidable; and if such a definite and final conclusion has not yet been reached, it can only be said that, in future years, such a proof seems well within the bounds of possibility; and as this is, as I have stated, the only conceivable evidence that can ever be forthcoming in proof of a future life, I must insist upon the vast importance of the study, and

upon the necessity of patiently and calmly and unceasingly investigating these phenomena, realising that such an investigation, so far from deserving the scoffs and sneers of the public, is in one sense "the most important investigation in the world," as Gladstone so well said many years ago, "by far the most important," since they form, as has been repeatedly pointed out, the bridge, and the only bridge possible, between the religious and the scientific worlds.

And this evidence for a super-physical and spiritual world which the phenomena of psychical research furnish us, the fact that such phenomena are constantly here and now happening in our very midst, gives us a vivid impression of the nearness, the presence, the all-inclusiveness of such a world, and a sense of its nearness and reality which few, if any, religious systems can furnish or equal. This world which we thus come into touch with, this inner, causal world may, after all, be the real or 'noumenal' world of which we but perceive the phenomena, the effects, the shadows: and that this is very probably true, at heart, is certainly borne out and rendered most credible by the general acceptance of the philosophic system known as idealism — a very brief outline of which I shall give here, as it is essential for our argument.

It can readily be shown, and that without going further than the province of physiology, that the world we see and know and live in is not the real, outer world of physical things and events at all, --- which world we do not, in reality, ever see or know or come in touch with; i. e., we never can or do see the real, physical world! At first sight this may appear rather a sweeping, if not a ridiculous statement, but that this is the truth can be readily proved as follows. When I look at and apparently "see" a physical object, what really happens is something like this. Ether (light) waves passing from the object to my eye have caused the eye to vibrate, and this vibration, reaching the optic nerve through the vibration of the vitreous humour of the eyeball, causes a nervecurrent to be set in motion, which travels along the optic nerve, reaching ultimately the centre of sight in the rear of the brain, where a certain brainchange takes place (just what we are unable to say, but probably some sort of nerve vibration), and corresponding to this change and coincidental with it is the sensation of sight — of the object at which we happen to be looking at the time. But this brain-change is not itself the object looked at, but merely its counterpart, or duplicate, or symbol; and therefore for every object we "see" there is and must be this corresponding brain-change,

varying with and corresponding to the various objects seen. There is thus a series or succession of brain-changes, corresponding point for point with the outer, external objects seen, of which they are merely the symbols. But the mental state, the thought, does not in any case correspond with and to the external object, but with the brainchange (see p. 131); with this it corresponds, with this it is intimately connected; and, if the mind can be said to see any physical thing in the world, so to speak, it is the brain-change and not the object! But the brain-changes are, so far as we can see, as entirely dissimilar from the external object as possible; they are merely its counterparts, or symbols, as I have before stated. So that we do in reality live altogether in a world of symbols - an inner, duplicate, mental world - which is thus the only world we do or ever can know.¹ So

¹"That these objects [*i. e.*, the objects we see and know] are nothing but mental modifications may be demonstrated, so to speak, ad oculos. Suppose I am looking at a candle; the candle I am conscious of is a mental-modification. How may I convince myself of the fact? By the simple process of closing my eyes. Something then ceases to exist. Is it the real candle? Certainly not. Then it must be the mental duplicate. By successively opening and closing my eyes I may create and annihilate the perceived candle. But the real candle continues unchanged. Then what I am immediately conscious of when my eyes are open must be the mental duplicate. If an original of that duplicate exists outside the mind, it must be other than the candle I perceived, and itself unperceived."— Prof. G. Strong, Why the Mind Has a Body, p. 186.

that — and this is the practical conclusion I wish to reach and point out to you — we all live in an inner, mental world which is but the symbol of the outer world, and which each one of us must subjectively construct within himself.

The certain conclusion from this chain of argument is that each one of us constructs within himself the world he lives in --- which is, so far as he is concerned, the only, or real world. Thus, we literally make or create our own worlds --- the world we live in --- in the very fullest sense of the term: we live in our own created world -the world we have made for ourselves. And, if this is so, then, I suggest (since we can thus influence its construction) we might just as well make for ourselves a good, cheerful, happy world as a bad, gloomy, unhappy one - since the process of construction must evidently enter into the problem. Our mental world obviously does not only correspond point for point with the outer world that exists: for if it did, then all minds must necessarily be the same, and there would be no 'personal factor' in the world; but since we know that individuals do not, at any time, see things precisely alike, there must be a personal or individual factor entering into the case also; and this individual factor colours or shapes our mental world, causing it to differ in each one of us.

How far this process of colouration and shaping goes is readily seen when we look around upon the world and see the varied types of individuals, and how widely different are men and women of every age and clime,— aye, even those of the same land, the same city, house, family! Thus the process of colouration or individualisation becomes the most important factor in our lives, and, in short, determines our character and forms our true ' self.'

One practical conclusion follows from all this - a conclusion of most fundamental and of great importance. It is this: According to the viewpoint we assume does the world change; i. e., we can alter or reconstruct the world we live in to suit ourselves, and make it what we will. Now that is a consideration of truly immense importance, for we can see that, in order to reconstruct our lives and live a happier, better, more contented life, we have not to change the world, but the viewpoint; and when once this has been done the world will assume its normal aspect; things will become properly adjusted, and happiness and harmony, instead of misery and discord, will ensue! How fundamentally important is this consideration is well illustrated in that class of facts in which the colouration and viewpoint are so tremendously important and all-inclusive as apparently to obliterate the

outer-world phenomena altogether, and even change the course of those phenomena, causing them to pursue some course, or achieve some end which they would not otherwise do; and that is a very important consideration for us indeed. This aspect of the problem is well brought out and illustrated by Prof. William James in his *Will to Believe* (p. 96-7), where he says:

"Suppose, for example, that I am climbing in the Alps, and have had the ill-luck to work myself into a position from which the only escape is by a terrible leap. Being without similar experience I have no evidence of my ability to perform it successfully; but hope and confidence in myself make me sure I shall not miss my aim and nerve my feet to execute what without those subjective emotions would perhaps have been impossible. But suppose that, on the contrary, the emotions of fear and mistrust preponderate; or suppose that, having just read the Ethics of Belief, I feel it would be sinful to act upon an assumption unverified by previous experience - why, then I shall hesitate so long that at last, exhausted and trembling, and launching myself in a moment of despair, I miss my foothold and roll into the abyss. In this case (and it is one of an immense class) the part of wisdom clearly is to believe what one desires; for the belief is one of the indispensable preliminary

conditions of the realisation of its object. There are then cases where faith creates its own verification. Believe, and you shall be right, for you shall save yourself; doubt, and you shall again be right, for you shall perish. The only difference is that to believe is greatly to your advantage."

The practical consequences of all this are im-If faith can thus create its own verificamense. tion, where can we draw the line? How limit its power for the fulfilment of worthy ambitions and achievements which would otherwise be impossible? Viewed from this standpoint, they may not be impossible at all, but well within the possibility of achievement; while, if we could get a larger mental grasp of things, we might see that all our set-backs and reverses are not such in reality, but only temporary trials and obstacles to be overcome - which may be, indeed, the very best thing that could possibly happen to us, could we but see the proper relations of that fact or happening to others that have gone before or are about to follow. I thus conceive that a "scientific optimism" is quite possible, and that the old saying "All is good" may be ultimately quite true, and may be proved to be so from future experience as well as from philosophy. And if it is possible, it is certainly altogether desirable, both for the individual and for those coming into close, personal contact with him,

since a happier and better life does not altogether limit its influence to the individual living it, but reacts, perforce, on all those who are closely, associated with him. The only difficulty is in realising the position that all may ultimately be for the best, could we but see things in their proper light and judge them with the eye of foreknowledge and greater understanding. The great trouble with us is that we cannot, at the time any event is happening, see the relations of that event to others that are to follow --- only the event itself; in that we are swallowed up and absorbed. And if this larger mental viewpoint or judgment were possible, I am assured that our ultimate judgments of many of life's happenings would be very different — we looking upon them as blessings, rather than curses; as the inevitable consequences of transgressed law, rather than as 'dispensations of Heaven;' as trials to be overcome for our own ultimate good, rather than as useless and altogether harmful events and occurrences that have taken place in our lives. To a larger, enveloping consciousness this may, indeed, be the light in which these things are seen, and the event arranged for the purpose, and with the object, of our best ultimate benefit, though not suited and adapted, perhaps, to our limited and narrow outlook. And that such an overshadowing, all-

inclusive consciousness - call it God or what you will --- is at least a possibility cannot be overlooked or dismissed as a scientific absurdity. As Professor James so well expressed it (The Will to Believe, pp. 57-8): "That the world of physics is probably not absolute, all the converging multitude of arguments that make in favour of idealism tend to prove; and that our whole physical life may lie soaking in a spiritual atmosphere, a dimension of being that we at present have no organ for apprehending, is vividly suggested to us by the analogy of the life of our domestic animals. Our dogs, for example, are in our human life but not of it. They witness hourly the outward body of events whose inner meaning cannot, by any possible operation, be revealed to their intelligence,- events in which they themselves often play the cardinal part. My terrier bites a teasing boy, for example, and the father demands damages. The dog may be present at every step of the negotiations, and see the money paid, without an inkling of what it all means, without a suspicion that it has anything to do with him; and he never can know in his natural dog's life."

To elaborate Professor James' idea a little further: just as the dog's consciousness is contained in ours, but we perceive, at the same time, many psychological surroundings, meanings and relations to the actual events, which the dog cannot possibly see, so may our own consciousness be included and surrounded by a vaster, cosmic consciousness, which includes our own and much that we cannot possibly, know because of our limitations.

That some events, at least, now happening and apparently altogether evil and harmful, may in the end prove of the very greatest benefit to ourselves is again suggested to us by the following analogy. A dog has imbedded in his paw a splinter, the removal of which is a painful operation. Knowing that it must be removed, however, we hold the dog forcibly and have the splinter removed - to his ultimate benefit, of course. But during the operation, when the pain was at its height, the dog could not possibly be supposed to know that this was "for his own good," and to him it must have seemed a very brutal and altogether evil experience. But to us, who see - not only the happening itself, but its future consequences and relations; to our consciousness, which includes not only the dog's, but a great deal besides, the event appears in an altogether different light, and we perceive the ultimate effects to be not detrimental and evil, but beneficial and the best thing that could possibly happen. And so it may be with ourselves. To a larger, more far-seeing consciousness, the events which seem evil to us

may ultimately appear to be those which are for our greatest benefit, and of the greatest assistance to our true progress.

Taking this more inclusive and larger point of view, then, we come to see the pettiness, the littleness of many of life's happenings, the things we quarrel over and deem at the time to be of such vast importance. These very things may, and doubtless will, ultimately prove to be of the very least significance and worth; in fact, when once possessed, they may prove actually undesirable if not actively detrimental. Take, for example, money. Money does not bring happiness, nor health, nor anything of real worth in life; in fact often the reverse, as has been confirmed by many men who possess it. But apart from their testimony, consider what must be the feelings of any sensitive, intuitive man or woman who happens to be immensely wealthy, and who sees around him the crowds of men and women --- ' friends '-- clustering as the bees about the hive! Would not his thoughts be, "Do these men and women like me, or do they like my money? If I were poor, would they still cleave to me for myself, my own individuality? Or do they like me because of what they can extract from me, in one form or another?" Would not such thoughts as these make life bitter, taking from it all its charm and spon-

taneity and sweetness? The constant worry and uncertainty must be 'hell on earth' indeed to such poor (literally poor) souls! Are we not, almost all of us, better and happier without this money for which the whole world strives? Is it not a false ideal — a false goal? And may not much greater happiness be experienced without than with it? That degeneracy and inability to do good work ---the work of genius - often goes with fame and the inheritance of large sums of money is too well realised to insist upon here; it is made the central theme of Marie Corelli's truly fine book, The Sorrows of Satan. And as a final reflection I would point out that we do, in America, judge all a man's abilities by his money-making ability. His other qualities and qualifications we heed not at all, be he ever so great a man; but if he is an adept at gaining money (honestly or dishonestly) then he is a 'clever' man, forsooth! And yet this ability to make money will surely be rated the very lowest in the scale when the ultimate summing-up shall follow.

The whole viewpoint and position toward the question is wrong, I think, in this: that we cannot, as it is generally supposed, *add* happiness from without,—since we must find that within ourselves; it must well up from the core of our being. Just as we cannot add vitality to ourselves from without, but can only 'clear the ground,' so to speak, for its free operation from within; ¹ just as we cannot force another soul to perceive 'Truth (the recognition of which must come from within — all facts and arguments merely 'clearing the way' of obstructions existing between the seer and the 'Truth), just so must all real happiness come from within ourselves; it must well up from within us, and cannot possibly be forced in or supplied from without. Each individual must thus make and form his own mental life, and must colour it as he may, according to the degree of understanding and intuitive grasp of his personality.

And thus, as the result of this long preamble, we arrive at the true viewpoint in this matter, — in perceiving that we can *make ourselves*, in the truest sense of the term, and that we can, in reality, create our own world and become the individual we choose to be. Our whole future, then,

¹"We cannot *force* plants to grow with greater rapidity . . . all we can do is to supply the *conditions* (heat, moisture, sunlight, and the proper amount of nutriment) that are most favourable for the growth of the plant. The conditions being supplied, growth becomes more easily possible; but it will be observed we are not actually *adding* to the life-force of the plant, but merely supplying the conditions that render the outward manifestations of this lifeforce more favourable. The force, the energy of growth is *inherent*, and the absurdity of trying to force or 'manufacture' this energy should be apparent."—*Vitality, Fasting and Nutrition*, p. 253. rests not on some 'Divine Providence,' but in our own hands; we must ourselves achieve any great results that are achieved, any ambitions that are fulfilled. What, then, is the object of life? For what reason are we living? What should we do with our lives, in short? For my own part, I think that some definite and lastingly beneficial work — achievement of some kind along some certain line — is our life's duty, and that this is the great and the final end and aim of life - viz., the accomplishment of some set purpose through persistent and continued work. And in considering the matter, it appears more and more obvious, I think, that this should be so. For what purpose do we need rest and sleep and food other than to recuperate and refresh and strengthen us for the labours of the morrow? Do we not simply recharge ourselves with energy thereby for the purpose of fitting ourselves for more and better work? And in this connection, the true meaning and the philosophy of recreation become clear to us also. As Felix Adler so well said (Religion of Duty, p. 154): "Pleasure is intended as a recreation, a cordial. We cannot do our work well if we are relaxed, heavy and dull, surely not so well as when our faculties are at their brightest, and when we go about our tasks full of cheer, freshness and vigour. Pleasure is justified to the extent that it renders

men more efficient workers." And this, it seems to me, is an absolutely true statement. The main thing in life is the work (not money-getting be it understood, which I consider purely subsidiary, and necessary only as a means for preserving life while the life's *real* work is being accomplished) — this definite object which we should all have, and the accomplishment of which must be our sole aim and end and purpose; *that*, I conceive, is our life's true goal, and, as compared with the accomplishment of that ideal, all else is really insignificant.

Thus it will be seen, I think, that the individual is quite secondary and unimportant as compared with the achievement and completion of his life's true work. So long as this is thoroughly and well accomplished, I think that the individual should be quite willing to be sacrificed --- to suffer his own insignificant personality to become obliterated, if needs be, for the good of the human race, and especially for those near and dear to him. Compared with the *results* of a man's life the man himself is, and should consider himself, quite unimportant, and as constituting merely the means to a great end - the work achieved. I say he should be willing to sacrifice himself; not that he must necessarily do so. Provided a man keeps himself in good health, there is absolutely no reason why

he should not produce a great amount of good work and live a long and a happy life as well — " a long life and a merry one," in fact. There is no reason, I say, why these should not be combined into one human lifetime, and I think they should be so combined. For we know that in giving we often experience the greatest happiness, and that unselfishness often recoils in our own favour, and that we invariably find good and happiness in so sacrificing that which we hold dear; and so long as we are producing good results — the fruit of good work — I think we shall never feel the need of other, external sources of happiness, or of those things which the majority crave. As Horace Fletcher so well said: "Happiness is the result of conscious usefulness "- a statement as exquisite as it is true. Each one of us, then, should take up some definite line of work - one which he or she thinks most fitted to his or her particular bent and life - and follow that work persistently, conscientiously, unswervingly. No matter what the line of work may be - so long as it is honourable - it is bound to bring good into the world and happiness to the person accomplishing it. Having in mind, then, those things which are of real worth in life (and bearing in mind that this life is not the end of all things, so far as we are concerned, but merely the very smallest fraction of our Life - as

it will doubtless ultimately prove to be), we should choose and begin some definite work — the accomplishment of which should be our life's chief duty — before which all else pales into insignificance, all else must be sacrificed; and in thus striving, and perhaps achieving, we shall find happiness and health and true Life.

CHAPTER III

PSYCHICAL RESEARCH: REPLIES TO OBJECTIONS

A MONG men of scientific repute, and especially among psychologists, no question of late years has given rise to such bitter contests, to such strong partisan feeling, as the legitimacy for serious study of certain more or less sporadic phenomena termed "psychic." By "psychical research," as herein defended, is meant certain residual phenomena which are as yet unrecognised by any of the official sciences; whose very existence is, in fact, doubted by a large number of scientific men. The existing differences of opinion are only natural, but when we come to examine the reasons upon which the sceptic founds his doubts and reservations, we find them generally invalid, and it is the purpose of this chapter to examine the objections themselves. But that they should be open to doubt at all, if actually existing, is, to some persons, an irreconcilable drawback to their investigation. It seems to show that they are uncertain, shifting, uncontrollable, and not subject to the scientifically exact methods of laboratory experiment prevailing at the present day. This uncertainty is largely due, first, to the fact that here, unlike 43

any other scientific investigation in this respect, fraud frequently enters into the question of evidence, and has to be carefully excluded before any deductions from the facts observed can be drawn; second, because, even considering the genuine phenomena, we are principally coping with that most unstable and uncertain "quantity"- the human mind. When we are dealing, not with carbon and hydrogen, but with emotions and moods, we are on far more debatable ground, in far more uncertain surroundings than science, as such, is accustomed to debate. Indeed, comparatively nothing is known in reality about these mental phenomena, even by the "orthodox psychologists;" the whole subject is enveloped in a cloud of exasperating obscurity, and, such being the case, it is certainly unreasonable that the outlying, and perhaps still more obscure phenomena, such as trance, clairvoyance, telepathy, etc., should meet with á priori rejection and ridicule, instead of diligent study and research. It is the above-named subjects then, together with such other debatable phenomena as apparitions at the moment of death, second-sight, premonitions, phantasms of the dead, and haunted houses, together with the wide range of spiritistic phenomena, which form the basis of this research; a "new science" as Sir Oliver Lodge has said.

The opposition to any strikingly new idea; the

natural tendency to cling to long-seated dogmas and prejudices, as distinguished from the perfectly legitimate scientific caution with which every partially demonstrated theory is received, all these tend to arouse doubts and to promote antagonistic ideas from the man of science. Looked at from the other side of the question, however, it is somewhat surprising to find that in an age which has produced so many brilliant "free-thinkers" along theological and other lines of inquiry - it is somewhat surprising, I say, to find so few men who are liberal enough to take up the investigation of these subjects in a perfectly candid and unbiased frame of mind; to be willing, at the cost of a little time and trouble, to sift the matter thoroughly, and to find what truth, if any, is contained therein. No call is made upon their credulity, no "acceptance of any particular explanation of the phenomena investigated, nor any belief as to the operation, in the physical world, of forces other than those recognised by physical science." The only plea entered by those who defend these subjects is that they should be investigated, and not merely scoffed at upon *á priori* grounds, and without any knowledge either of the strength or the character of the evidence attacked.

Surely no scientifically minded man can object to these conditions. "Investigate for yourself; form your own opinions; by no means trust entirely to the evidence presented by others:" this has almost invariably been the advice of psychical researchers, and, be it added in fairness to them, of the spiritists also. And that scientific men have investigated these questions, and that the vast majority of those who have done so *have* become convinced that at least occasionally phenomena occur which are not dreamed of in our scientific philosophy,--- this also is a matter of historical record. Dr. Alfred Russel Wallace has, in fact, declared that "the whole history of science shows us that, whenever the educated and scientific men of any age have denied the facts of other investigators on *á priori* grounds of absurdity or impossibility, the deniers have always been wrong." 1

Without going quite so far as Dr. Wallace has done in his somewhat sweeping, but generally true statement, it is certain that the history of scientific research is most dolefully bespattered with records of almost fanatical scepticism. The astronomers of Galileo's time, who *knew* that he was hopelessly wrong, yet refused even to put their eyes to his telescope —" for fear of being convinced;" the sceptical M.D. who " does not believe that any spirit can come back, because

¹ A. R. Wallace, Miracles and Modern Spiritualism, pp. x, xi.

he does not believe that there is any such thing as a spirit to come back " (we shall return to this argument later on); the skilled geologist who declares (apropos of meteors) that " there are no stones in the air, consequently none can fall out of the air "— these are but a few examples of the melancholy list which it would be no great task to compile, all illustrating human error, prejudice and fanaticism.

But in pointing out these defects and mistakes made by scientific men, it must not be supposed that science, or scientific method itself, is at fault - far from it. It is to science that we owe whatever progress has been made towards a solution of the various "riddles of the universe;" and strictly scientific method and rigorous logic are only neglected by those who are incapable of understanding and properly appreciating their value. The blatant credulity and astonishing ignorance displayed by many of those following various spiritualistic creeds cannot be appreciated until seen. Their utter contempt for anything constituting valid evidence is simply amazing. But again, between these two entirely opposite classes - which I have painted in somewhat vivid colours to make the contrast the clearer — there are, happily, various intermediate stages, any one of which it is perfectly legitimate to defend, and which are, in

fact, defended by men of eminently scientific repute, ranging from the complete believers (Wallace) to the equally complete disbelievers (Haeckel). And if this be so, the question is: How is it possible for the student to distinguish between these various theories, and to obtain an unbiased review of the facts and the arguments both pro and con? The answer to this, of course, would be: first, experiment for yourself, and secondly, read, without bias, the standard books upon this subject.¹

But, it may be objected, this will take much time, and how am I to know whether, having done all this, I shall be rewarded by anything at the other end? In a field where imposture and credulity run riot, as they most certainly do here, is it worth while for scientific men to devote their time to such dubious work as this, when it can most certainly be spent profitably in following up their more orthodox scientific studies? What guarantee is there of anything obtainable in this work anything, that is, of practical value? One can hardly expect men like the late Lord Kelvin and Thomas Huxley to go running about the country investigating disturbances in "haunted houses" which turn out to be caused by rats and the wind in old water pipes; to spend hours sitting round a

¹ Especially the *Proceedings* of the Society for Psychical Research.

table in the dark for the pleasure of exposing some humbug juggler! On the whole, it appears to be mostly rubbish, and I cannot afford to waste my time making prolonged investigations of it!

These arguments, employed, as they are, by the majority of scientific men to-day, and self-satisfying as they may be to the speaker, are yet lamentably weak when analysed. How are we to know if there be truth in any question without prolonged investigation? Whether inexplicable phenomena do or do not occur in certain cases, is simply a matter of evidence; and that there is much good evidence for their occurrence in many instances is beyond question. The facts are there; the interpretation of those facts is another question.

Now, taking the whole range of psychical research into consideration, it is somewhat difficult to determine exactly the grounds for objection which the scientific man will choose. If I should go to some "orthodox" psychologist, or physician, or physicist, and pointedly ask him, "What are your objections to the serious study of these phenomena? Why do you despise them, and deem them unworthy of credence? What are your reasons for refusing to study these subjects? And, more than all, why do you ridicule them, or ignore them altogether?" his answer would probably be: "Because they are altogether unworthy of serious

study; there is no respectable evidence in support of any of them - none at all beyond that of a few hysterical and credulous persons; the whole thing is obviously humbug and rubbish from beginning to end, and I don't want to waste my time over it!"¹ Or, again, the objections may be on theological or orthodox grounds; or, it may be urged that this inquiry fosters superstition, or encourages fraudulent practices, or that their study tends to induce abnormal and morbid conditions. detrimental alike to both health and morals. As all these objections seem to carry weight in the public mind, though their complete lack of all foundation may be easily seen by anyone thoroughly conversant with these subjects, I shall proceed to answer them one by one, being as brief as possible in each case.

ORTHODOX AND THEOLOGICAL OBJECTIONS

The conflict between science and religion is bound, in the natural order of events, finally to result in the complete triumph of science as opposed to the crude speculations of many centuries ago. It is a notorious fact that the Church has always

¹ All this, it will be observed, is purely *á priori*, and will be considered under that section. It is a sample of the class of objections which the writer has often heard, however, and which show wilful prejudice and ignorance of this subject.

been opposed to new discoveries, to scientific advance; in fact to the enlightenment and education of the masses in any form. That there should ever have been such a thing at all as a " conflict between science and religion " is, in itself, a most foul blot upon the history of religion and a slur upon man's reason and independence of thought -as it necessarily indicates opposition to progress. Those very persons who are the most bigoted and rabid in their defence of the Bible miracles are, strangely enough, the very ones who oppose most vehemently all modern evidence upon the same subject. If these extraordinary events ever occurred, it surely is reasonable to suppose that they should continue to do so, in more or less the same form; for the old idea of a miracle — that it was a "direct intervention on the part of providence " or a " suspension of the laws of nature "--- is absolutely discredited by all thinking men of the present day. This is not saying that no unaccountable phenomena took place to give rise to these stories. It is highly probable that supernormal ¹ phenomena did exist; that is, natural phenomena, the causes for which are as yet unknown. But the evidence for the newer

¹ The word "supernormal" has, for some time past, been used by the Society for Psychical Research to take the place of the meaningless term "supernatural," it being claimed that whatever happens is natural — be it even the intervention of spirits.

"miracles" is infinitely superior to the old, and that the former should be discredited and the latter blindly accepted is beyond the comprehension of the present writer. The credulity and ignorance of the masses on religious topics is simply amazing; yet their blasé attitude towards the vital questions of death and futurity is beyond a doubt, unless one should happen to step upon some orthodox corn! A perusal of Haeckel's Riddle of the Universe, for example, would do the majority of persons a world of good. "What such persons most need," as Prof. William James has justly said, " is that their faiths should be broken up and ventilated; that the northwest wind of science should get into them and blow their sickliness and barbarism away." 1

Finally, it is urged, "What is the use of seeking? You will find nothing. Such things are God's secrets, which he keeps to himself." And to this M. Flammarion rightly answers: "There always have been people who liked ignorance better than knowledge. By this kind of reasoning (had men acted upon it) nothing would ever have been known of this world. . . It is the mode of reasoning adopted by those who do not care to think for themselves, and who confide to directors (so called) the charge of controlling their con-

¹ The Will to Believe, and Other Essays, p. x.

sciences."¹ "Faith," as Dr. Hyslop has reminded us,² "no longer charms with her magic wand, except among those who do not accept or appreciate scientific method, but whose flimsy standards afford no criteria for defence against illusion and deception. Hence men who have been saturated, consciously or unconsciously, with the scientific spirit, either give up the hereafter or insist that their belief shall have other credentials than authority." Finally, that there should be any laws or phenomena which it is illegitimate to study is utterly incredible, and that men should take this stand at the present day is a sign of the most narrowminded bigotry, and utterly unworthy of the scientific spirit of the age in which we live.

THE OBJECTION THAT IT FOSTERS SUPERSTITION

This objection, I take it, has a certain amount of force, and is, to some extent, a valid one. That many superstitions are kept alive; that almost unbounded credulity exists among various spiritistic sects, and that a faith in all sorts of vagaries is maintained by the flood of so-called "psychic" literature upon the market — all this is undoubtedly true. But it does not necessarily follow, as many

¹ The Unknown, p. vii.

² Proceedings Society for Psychical Research, Vol. XVI, p. 289.

think, that everyone who takes up the investigation of these subjects seriously is more or less demented! It all depends upon the cast of mind of the individual; and there is absolutely no reason why these subjects should not be investigated in precisely the same scientific spirit as any other problem whatever. The present writer regards the question of a future life or "spirit return" as purely a matter of evidence, and its solution a problem for experimental psychology to settle as much as the nature of the earth's centre is a problem for geologists, or, to be more prosaic, the composition of table-salt is one for the attention of chemists. Nor is there any reason why the one should not be investigated in precisely the same calm, cool, scientific spirit as the other, the principal difficulty being simply that in one case we are dealing with far less known and more uncertain phenomena than in the other. That a large number of persons have been grossly deceived, and that others have, to a certain extent, lost their reason while dwelling upon these problems, argues nothing more than that these particular individuals lacked a certain balance of mind, a scientific cast of character which rendered them, unfortunately, incapable of investigating these particular subjects without detriment to themselves; but the fault here lies obviously with the investigator

 $\mathbf{54}$

and not with the subject-matter investigated. It is my contention that if these same individuals had happened to become interested in any other branch of science than the psychic, precisely the same thing would have happened. It must not be forgotten, in this relation, that many men have become insane by long brooding over problems which are now classed among the most "orthodox " of sciences, viz., physics.1 The individual with that particular "make-up" is as likely to become insane over any one unsolved problem as another; and the only objection is that, in these subjects, the faith and emotions are appealed to, as they are not in the majority of other sciences. But surely not more so than in various religious creeds — where the most appalling extremes are constantly held before the eyes of their followers! In this case the parallel is striking, and consequently the absolutely untrue and unjust statement that "modern spiritualism has sent comparatively more people to the insane asylum than everything else put together " may be refuted by the fact that recent statistics have shown that a larger proportion of the inmates of insane asylums are religious lunatics than spiritualists.

But there is another point of view to be considered in relation to the objection we are discussing.

¹ For example, "perpetual motion."

It has been assumed, by all those who oppose such investigations as those relating to clairvoyance, haunted houses, and so on, that these subjects are all necessarily untrue; that there is no real foundation for any of them; consequently their investigation tends merely to propagate error. If such were the case that would undoubtedly be so, but let it once be granted for a moment that such things do exist, and really are a part of nature, though all unknown as yet, and their investigation becomes a most imperative duty. The average scientist would be willing to admit, I believe, that if such phenomena really existed, their solution would be highly important, and consequently must take the stand that they do not really exist. But they do exist! This I say not merely by way of opinion, but on the authority of very many eminent men' and investigators who have borne testimony as to their reality, and whose cumulative evidence is absolutely overwhelming and convincing. If the facts did not exist, why should these men bear testimony thereto? Why should the evidence be forthcoming? or, to quote Andrew Lang, "why do such stories come to be told?" On this, I take it, everyone must form his own opinion, which will be guided into one of three channels. Either (i) the phenomena exist, as stated; or (ii) the investigators were hallucinated, and only

56

thought they saw what they did. This theory is, in many cases, excluded by the fact that some material change has been left in the world, proving that the phenomenon actually occurred, and was not merely thought to have done so; or (iii) and this is the theory the majority of persons prefer to believe — that the investigators were, in some way, imposed upon and duped. Undoubtedly this has occurred in some cases, but in others, such as telepathic hallucinations, automatic writing, etc., it seems incredible, and in many cases practically impossible to attribute the cause to fraud and fraud alone. Such a theory would involve the dishonesty of many of our leading scientists and literary men, who claim either to have experienced or witnessed many of these phenomena themselves, under circumstances which render that hypothesis absolutely untenable; for any reasonable man to hold it nowadays simply betrays lack of knowledge of the evidence at hand. And if they exist; if, amid this bewildering mass of evidential matter, some phenomena, however slight and obscure, are observed, which tend to show that there are here some problems of nature as yet unsolved, then the study of these very problems is of the highest possible value, and the objection that they tend to "foster superstition" is meaningless and absolutely without foundation.

THE OBJECTION THAT IT ENCOURAGES FRAUD

This objection is closely akin to the last one and need not detain us here at any length. The drawback it suggests is, again, a partially vital one; as the continued patronage of mediums who have been exposed in fraud is not only a very great mistake, but a temptation held out to other mediums to produce phenomena fraudulently also, and thus obtain a living at the expense of their dupes in the easy way suggested. All this is admitted. But it must be remembered, on the other hand, that fraud such as this is only likely to occur when investigating paid or professional mediums; and the Society for Psychical Research has made it an almost invariable rule to refuse to investigate the phenomena occurring in their presence, as being open to this very objection, and have devoted their energies almost entirely to private and unpaid mediums, in many cases with convincing results. Further, be it observed, psychical research does not by any means confine itself to the investigation of spiritistic phenomena, but devotes its attention to many other problems ---apparitions, telepathy, etc. -- some of which, however much hallucination may occur, can scarcely be set down to deliberate fraud, as such an hypothesis would involve the connivance of hundreds of cultured persons. Indeed, to the careful observer, it would seem that, owing largely to the public exposure of trick devices, and largely to the laborious investigations of the Society for Psychical Research, fraud is far less in vogue, far less practised at the present day than ever before; it seems, in fact, as though it were gradually being eliminated by the increase of knowledge in these directions, so that, here again, the objection that psychical research "tends to encourage fraud" is absolutely erroneous and made in entire ignorance of the evidence at hand.¹

MORBIDITY AND ABNORMALITY

But one of the principal objections which has always been raised against the study of these phenomena is that they tend to induce abnormal and morbid conditions, both mental and physical; and this both in the subject and in the operator. And as no impression relating to these topics seems to have so great an influence over the public mind as this, and as no one of them is, generally speaking, more false or without foundation, it is well that this objection should be met and answered here, if only for the sake of completeness; it has already been re-

¹See my *Physical Phenomena of Spiritualism* for a very detailed account of the tricks and devices of fraudulent mediums.

futed many times by pens far more competent than mine. To state the objections, then, as briefly as may be, it would seem that the public at large regard the *investigators* in these questions either as partially demented - this state being invited and induced by a continued dabbling in the unknown and mysterious, a love of the marvellous - or as taking actual pleasure in invoking certain abnormal conditions for the purpose of watching the subject in the course of the induced paroxysm; just as an abnormally minded surgeon might watch the struggles of a suffering animal in a case of vivisection. To answer the first of these objections it is only necessary to quote the names of a few of those who have investigated these subjects, and whose authority on any other topic whatever would not, for one moment, be disputed; such men as Sir Oliver Lodge, Sir William Crookes, Lord Rayleigh, Hon. A. J. Balfour (former Premier of England), Professors William James, Sidgwick, Barrett, Hyslop, Wallace, Balfour Stewart, John Ruskin, Messrs. Myers, Gurney, Andrew Lang, Schiller, Robert Louis Stevenson, Lord Tennyson, Hon. W. E. Gladstone, the Bishop of Ripon and Professor Langley (to quote only a very few names most widely known as men of science and letters) :--- these men most surely did not engage in any such investigation as this for

60

the mere pleasure of beguiling away their otherwise valuable time in worthless speculations on subjects which do not really exist! The absurdity of such a statement should be apparent without further comment. These questions can be investigated in precisely the same manner as any other branch of investigation, without undue credulity and without lacking that calm, same, scientific spirit which marks any other scientific investigation.

The second charge brought against the investigators is, that they induce morbid conditions merely for the opportunity of studying the results attained in this manner. Now, I claim that this is not the case. This side of the question turns upon the supposed fact that morbid conditions are generally induced, while it can be shown that they are not. This brings us to the subjects of investigation themselves — the objection here resting upon the supposed fact that, in the course of psychic studies, unnatural and unhealthy conditions are constantly evoked. This objection must obviously be confined, in the first place, to *experimental* evidence, as over spontaneous phenomena we exercise no apparent control; and be the effects in these cases what they may, we cannot help them, as they occur whether investigated scientifically or not. To these may be added many of the experimental phenomena, a study of which has failed to produce any satisfactory evidence as to any lasting evil effects resulting therefrom. In fact, the charges of abnormality or morbidity must be confined, it appears to me, to the four following subjects:

(i) Experimental thought-transference.

(ii) Induced hallucinations and hallucination in general.

(iii) Spiritism: the medium-trance, "possession," etc.

(iv) Hypnotic experiments.

I shall take them for discussion in the order indicated.

(i) In telepathic experiments both the operator and subject are, generally speaking, in a perfectly normal condition; they act voluntarily and consciously, and it is an extremely rare occurrence for any untoward symptoms to manifest themselves, either at the time or afterwards. Occasionally, a slight headache is complained of, after the completion of the experiments, or a feeling of lassitude; but these are only occasional, transitory, and utterly insignificant compared with the importance of the results attained. In the vast majority of these cases this has been the sentiment of the subjects themselves, even when those slight symptoms follow, which, generally, is not the case.

(ii) Nothing could be a greater mistake than to suppose that a hallucination of the senses invariably.

indicates bad health or morbidity of temperament. That it does so in many cases is an undoubted fact; but that isolated, transient hallucinations of the sane should indicate any specially abnormal condition is wholly opposed to the results of the investigations carried on of late years. The hallucinations resulting from doses of opium and other drugs; from illness; from defects in, or irritation of, the sense-organs themselves, in the cortical centres, or in the nerves leading from the one to the other — in all these cases an abnormal condition exists, and they are more a province of pathology and psychology than of psychical research. Hallucination itself is only discussed in this relation because of its frequent induction - in crystal-gazing, hypnotic suggestion, etc.; hence, granting their morbidity, the opposition to these subjects on this ground. But, as before stated, their morbidity is by no means granted by modern investigators; and case after case could be quoted (did space permit) containing some such sentence as the following: "I was in perfect health at the time, and cricket, rowing and swimming were part of my daily exercises. . . ." The argument is very neatly summed up by Mr. Podmore, from whose book ¹ I quote the following:

¹ Apparitions and Thought-Transference, pp. 207-8.

" Indeed, until recent years the tendency of even well-instructed opinion has been to regard a sensory hallucination as necessarily implying some physical or mental disorder. This misconception - for it is a misconception — has had some curious consequences. Since it does occasionally happen that a person admittedly sane and healthy reports to have seen the likeness of a human figure in what was apparently empty space, such reports have been by some perforce scouted as unworthy of credence, and by others regarded as necessarily indicating some occult cause — as testifying to the agency of ghosts. There was, indeed, the analogy of dreams to guide us. Few educated persons would regard dreams, on the one hand, as a symptom of illhealth, or on the other as counterparts or revelations of any super-terrestrial world; or, indeed, as anything else than purely subjective mental images. Yet dreams belong to the same order of mental phenomena as hallucinations, and are commonly so classed, such differences as exist being mainly due to the conditions under which the two sets of phenomena respectively occur. In fact, a hallucination is simply a hypertrophied thought — the last member of a series, whose intermediate terms are to be found in the mental pictures of ordinary life, in the vivid images which some artists can summon at will, and in the faces in the dark which many

persons see before passing into sleep, with its more familiar and abundant imagery."

Thus far as to hallucination in general; but what of those individuals who are in the habit of constantly inducing these images? Here, if anywhere, we should find traces of some abnormal condition were the phenomena in question dependent upon morbidity in any form. But such is by no means the case. In Mr. Myers' paper ¹ on "Sensory Automatism and Induced Hallucinations," there are printed statements of several of those socalled "psychic" individuals who experience such hallucinations almost daily. Of these "Miss X" is probably the most frequent recipient living of hallucinatory pictures, voices, etc., and her evidence, supported, as it is, by all the other investigators and subjects, must be taken as at least typical. On this very subject, however, she has declared:

"In view of certain statements which are current as to the physical conditions of crystal-gazing, I wish to say, as emphatically as possible, that in my own case these experiments are neither the cause nor the effect of any morbid condition.

"I can say positively, from frequent experience, that to attempt experiments when mind and body are not entirely at ease is absolute waste of time.

¹ Proceedings S. P. R., Vol. VIII, pp. 436-535.

The very conditions which might make crystal-gazing a fatiguing and exhausting process render it impossible. I can with equal certainty disclaim, for myself, the allegation that success in inducing hallucinations of this kind is due in any way to an *état maladif*. The four years during which I have carried on experiments in crystal-gazing have been among the healthiest of my life."

In view of this definite evidence, then, it can hardly be objected that *this* branch of the subject is necessarily a sign of morbidity.

(iii) Objections have been raised to the study of the so-called "medium-trance," with its accompanying phenomena of possession, obsession, etc., upon the ground of its abnormality. Upon no topic is the medical and psychological world so uninterested, and consequently so misinformed, as upon this. The general impression existing, that any trance condition is necessarily pathological and injurious, seems to be so deeply inrooted, and everywhere accepted without any inquiry as to its legitimate foundation, that it cannot be combated or refuted in a general review such as this. I can but say that, generally speaking, this opinion is wholly unwarranted and untrue, and I appeal to the evidence existing upon these subjects to bear out my statement. That such abnormal condi-

66

tions exist together with trance is undoubtedly true in many instances; ¹ but that such symptoms should be considered as *inseparable* from the trance state is just as erroneous a conclusion as the Charcot theory that " all hypnotisable subjects are hysterical." This theory has been exploded by pointing out the fact that the Charcot school experimented solely upon hysterical subjects! Naturally, such a conclusion was the only one at which it was possible to arrive. Moreover, they are entirely alone in this theory, the vast majority of physicians agreeing that it is entirely unsupported and opposed to their own experience in this direction, and declaring that sound and healthy persons make just as good or better subjects than those with a predisposition to hysteria.

With regard to the medium-trance:

I can but appeal to the evidence extant and beg my readers to refer thereto, and satisfy themselves that my statement is correct when I say that true pathological conditions are extremely rare in the medium-trance. I shall refer to a single case the most noticeable of its kind on record — by way of illustrating the point here made; for it may reasonably be argued that if the trance condition is dependent upon any abnormal condition, those in-

¹See, e. g., Dr. Hammond's Spiritualism and Allied Causes and Conditions of Nervous Derangement and Dr. Marvin's Philosophy of Spiritualism.

dividuals in whom the trance manifests itself most frequently would be the ones in whom the conditions would be most marked. Mrs. Piper - the now famous Boston medium --- has been almost constantly studied since the autumn of 1885 - the first report on her trance phenomena appearing in July, 1886,¹ over the signature of Prof. William James. Since that time this medium has been under almost constant observation, both here and abroad, and at one time experienced as many as two long trances a day, or even more. During all the seventeen years, however, no noticeable pathological symptoms have ever been observed, though her case has frequently been observed by medical and other experts. She was chiefly studied by the late Dr. Richard Hodgson, secretary of the American Branch of the Society for Psychical Research; and, in a review, he most emphatically repudiated the suggestion that Mrs. Piper's trances involved "the extreme cost of personal suffering," and that the symptoms frequently observed were "the convulsed countenance, the gnashing teeth, the writhing body, the clenched hands," by the following statement:

"In a communication to Light . . . for February 4, 1899, I pointed out that her assertions on this matter were entirely baseless. I drew

¹ American Proceedings S. P. R., p. 103.

68

attention to the fact that 'the convulsive movements which usually in past years marked Mrs. Piper's going into and coming out of trance ' had ceased two years previously. . . I also emphasised the fact that Mrs. Piper's trances did not involve any personal suffering by quoting a statement from Mrs. Piper herself that she had never suffered any physical pain in connection with her trances, and that during the past two years she had experienced better health than before since she was thirteen years old." ¹

It would seem, then, that in this case also, the charges of morbidity, etc., are entirely unfounded; and, supported as the evidence is by that of Mrs. Thompson and other and newer investigations of a similar type, we must again conclude that the charges brought against these subjects upon this score represent, not so much the sound opinion formed by a careful study of the available evidence, as the hasty \acute{a} priori objections of the old-school, old-time practitioner, whose knowledge of these subjects was gained years ago and whose opinion is now practically valueless, as it represents a point of view which is by no means up to date, nor even in accordance with observed and admitted facts.

(iv) There is probably no branch of psychic investigation which is more misinterpreted and

¹ Proceedings S. P. R., Vol. XIV, p. 395.

which has given rise to such misconception as hypnotism and hypnotic phenomena. From the dozens of different theories put forward to explain this state (all probably wrong); from the mass of rubbishy literature upon this subject now printed and upon the market, and from the general fear with which it is regarded, it would seem that the days of witchcraft had returned, with their vagaries and superstitious terrors. The average person is, I am sure, absolutely afraid of being hypnotised, though it would be hard for people, in the majority of cases, to explain the cause for this dread. Some, perhaps, would oppose it on theological ground, claiming it to be the work of the Devil - which actually occurred, e. g., in 1842, when the Rev. James McNeil attacked the phenomena upon that ground in a sermon preached in Manchester, England. This objection has already been answered many times. Others, perhaps, would object upon the ground that it would be liable to induce hysteria, or some other morbid condition; or that it "weakens the will;" or that an unlimited control might be gained by the operator over the subject, thus enforcing the enactment of crimes, etc.; or that, once asleep, it might be impossible for the operator ever to awaken the patient, thus inducing one of those terrible cases of continued sleep, ending in death, which we sometimes read of in the papers. Ι

can assure my readers that such cases actually exist in the papers — and there only. There is absolutely no respectable evidence of any kind forthcoming that such a case as this exists or ever has existed outside the fertile brain of the newspaper reporter. Such stories must be absolutely discredited, as there is not a single grain of truth in any such statement as this. After considerable personal experience in this work, and after a careful perusal of practically all the standard authorities upon this subject, I can honestly say that not a single well-evidenced case has been forthcoming. It may occasionally happen that a slight difficulty has been experienced in awakening a particular subject; but in experienced hands this is extremely rare; and even when this does occur, no apprehension need be felt upon this score, as, when left alone, a spontaneous awakening will occur in every case --- in from one to twentyfour hours after treatment. It will thus be seen how foolish and unfounded such stories are; indeed, they appear creditable at all only to those individuals unacquainted with the fundamental nature of hypnotism and its phenomena.

The other three objections require more consideration, as although they are, as I believe, decidedly untrue, the absurdity of the charges is not so apparent, and the objections named have, apparently, considerable weight in public opinion. I hope, at some future time, to treat this question at greater length, but for the present I must content myself with noting and briefly answering the three following, and remaining, objections:

(a) Hypnotism induces hysterical and other morbid conditions.

(b) The frequent induction of hypnotism tends to "weaken the will."

(c) The operator may, in time, obtain complete control of the subject's personality — his will and thus compel him to commit crimes, etc., merely by commanding him to do so.

(a) This was the theory adopted by the Charcot School, and persistently defended by them for a number of years. As it was defended by numerous physicians on the Continent, and by Ernest Hart ¹ and others in England, those laymen who defend this theory may well feel that their case is in good hands, and be content to leave it there. Consequently this objection either stands or falls with the ability of these physicians successfully to defend their theory. But, in the ensuing clash of opinions, what has been the outcome? This old thesis has been absolutely and completely exploded. First, it was pointed out, as I have done above,

¹ See Hypnotism, Mesmerism and the New Witchcraft. By Ernest Hart. London, 1893.

72

that the Charcot School experimented entirely upon hysterical subjects, and consequently the only possible conclusion to be drawn from such an investigation was that hypnotic subjects were hysterical. But when other investigators experimented upon other and healthy subjects, hysterical symptoms were found in very few instances; on the contrary, hypnotic suggestion completely *cured* many cases of pronounced hysteria. And this extends also to other morbid conditions. The supposed analogy between hypnotism and hysteria is now shown to be absolutely without foundation; it is one of those old-time theories beyond which many medical men have not progressed, but the fallacy of which any intelligent student of these phenomena, who keeps abreast of the times, may readily perceive. This hypothesis is behind the times. Dr. Bramwell, indeed, declared that "as far back as the International Congress of Psychology of 1892 the Charcot theories had practically ceased to excite scientific interest."¹ As this seems to be the opinion, also, of the majority of other writers upon this subject, I leave the final verdict to any unprejudiced reader.

(b) Nothing, in this connection, is more frequently heard than the statement that hypnotism tends to "weaken the will." It would be next to

¹ Proceedings S. P. R., Vol. XV, p. 102.

impossible to refute that statement here, as such an argument would involve much dispute as to the nature of hypnotism itself, and other technical points; and I can but say in this connection, "Where is the evidence for its ever having done so? Upon what does this accusation rest?" If analysed, I believe that this assumption would be found to rest principally upon subjective bias and unconfirmed rumour, occasionally supplemented, perhaps, by some flaring newspaper article. In opposition to this I may state that a careful perusal of the works of Doctors Braid, Moll, Bernheim, Lloyd Tuckey, Bramwell, William James, De Courmelles, Cocke, and Messrs. Gurney, Myers, Sextus, Quackenbos, Binet and Féré, De Mude, Anderson, St. Germain and other writers has failed to produce any confirmation whatever of this theory, which must, therefore, be relegated to the list of "human errors," together with so many others relating to these subjects.

(c) The subject of "criminal suggestion" is one which is yet far from being definitely decided to the satisfaction of all. The works of the old mesmerists occasionally contained accounts of crimes perpetrated by the unfortunate and unwilling subject, but in the absence of any recent evidence tending to confirm these stories, they must, I am sure, be accepted largely *cum grano*, and as

74

being due partly to misunderstanding the existing conditions, and partly to an ignorance of the power of conscious and unconscious suggestion. I have spoken of "the absence of any recent evidence tending to confirm these stories." It is true that pseudo-crimes are induced nearly every day by hypnotic suggestion; that is, acts are performed in the laboratory which would, if enacted in real life, constitute crimes; but it is precisely this difference which renders the latter most unlikely of performance — that they are "laboratory crimes." The hypnotic consciousness of the subject, which never sleeps, comprehends perfectly that a trial, a "test," is being made, and knows that however great the similarity may be between this and a genuine crime, he would not be permitted to commit a *real* crime in the presence of his investigators, and it is this feeling of security which allows him to perform any act suggested to him. But let a real crime be suggested, in which the subject is left to himself, and in whom the responsibility, if caught, would rest, and the suggestion invariably fails. This is the experience of almost every person at the present day who either practises hypnotism or is thoroughly acquainted with hypnotic phenomena. Dr. Bramwell, in his exceedingly thorough and brilliant article on "What is Hypnotism?"¹ after a brief

¹ Proceedings S. P. R., Vol. XII, pp. 204-58.

résumé of the evidence for criminal suggestion sums up the result of his investigations as follows:

" SUGGESTED CRIMES --- SUMMARY

"1. I have never seen a suggestion accepted in hypnosis which would have been refused in the normal state.

"2. I have observed that suggestions could be resisted as easily in the lethargic as in the alert stage.

"3. I have frequently noticed increased refinement in hypnosis: subjects have refused suggestions which they would have accepted in the normal condition.

"4. I saw Camille refuse a suggestion from mere caprice.

"5. Examination of the mental condition in hypnosis revealed the fact that it was unimpaired.

"6. The arguments of Bernheim cannot be considered conclusive, as they are founded solely upon two classes of facts. (a) Where a simple and harmless act has been assumed to be thought criminal by the subject, because the operator has stated it to be so. (b) Where the subject has permitted something in hypnosis which he would probably have submitted to in the normal state."¹

¹ Pp. 238–39.

76

Such phenomena do not necessarily indicate the presence of any abnormal or morbid condition.

Before leaving this section, one or two reflections may be noted which tend to cast a somewhat new light upon these subjects, and upon our point of view regarding them. These phenomena are by no means always degrading or abnormal in their character. Are they ever elevating or ennobling in this respect? May they not sometimes represent, not sub or abnormal phenomena alone, but supernormal — tending toward a higher goal, and occasionally betraying sparks of a more celestial fire? There are symptoms and tokens which seem to show that man's ephemeral personality is more deeply set, more part of a greater and higher " self " than we can conceive upon the materialistic basis of physiolgical psychology. Such a conception, based upon its legitimate facts, is far from being a premature speculation. Mr. Myers, speaking on this very subject,¹ has said:

"I claim that this substitution of personality, or spirit-control, or possession, or pneumaturgy, is a normal forward step in the evolution of our race. I claim that a spirit exists in man, and that it is healthy and desirable that this spirit should be thus capable of partial and temporary dissociation from the organism, thereby enjoying an increased free-

¹ Proceedings S. P. R., Vol. XVII, p. 68.

dom and vision, and also allowing some departed spirit to make use of the partially vacated organism for the sake of communication with other spirits still incarnate on earth. I claim that much knowledge has already been thus acquired, while much more is likely to follow."

And again,¹ in discussing the various fluctuations of personality observable in the "medium-trance" and kindred states, he goes on to say, "It may perhaps be felt, by some at least of the rising generation of psychologists, that few tasks can be more interesting and important than that of discovering, investigating, and comparing as many as possible of these extraordinary variations in the ordinary human type — variations which, although often degenerative, are also sometimes, in my view, distinctly and rapidly evolutive in their tendency."

A PRIORI OBJECTIONS

I have left but little space for meeting the objections raised to the study of these subjects upon \dot{a} priori grounds; nor do I feel that such a detailed defence is needed. Those individuals who oppose the study of these subjects upon such grounds alone are hopelessly prejudiced, and,

¹ Proceedings S. P. R., Vol. XVII, p. 74.

in such cases, any defence whatever is absolutely a waste of time. It is impossible to convince them; they *know* beforehand that there is nothing of advantage to be gained in pursuing these investigations; and, as Miss X. pointed out,¹ "it is only what Macaulay called the 'cocksure ' from which nothing is to be hoped." Fortunately, the majority of persons are not of this stamp, and have more or less definite grounds for opposing their study.

There still remain certain objections of a more or less valid character which could not be included under any of the sections already discussed, and consequently must be answered here. This section, indeed, might well be headed "Miscellaneous Objections."

First, then, there is the objection that these phenomena are "impossible." No matter how strong the evidence may be in their favour; no matter how many scientific men testify to their reality, there must be a mistake somewhere. They are contrary to the laws of nature, they are impossible, consequently their study will tend merely to divert attention from legitimate scientific investigation. Those who believe in them are mistaken — that is all. "But," as Dr. Mason has well said, "the objector who refuses credence to well-attested facts on

¹ Essays in Psychical Research, p. 11.

that ground alone, simply assumes that he is acquainted with all the laws of nature."¹ And again, Sir Oliver Lodge declared that:

"It is a question of evidence whether such things have occurred; and opinions differ. For myself, I think they have. Part of the extra difficulty of accepting evidence for any unusual phenomena is the *á priori* notion that such occurrences are contrary to natural law, and are therefore impossible. We cannot, however, clearly tell that they are contrary to natural law; all we can safely say is that they are contrary to natural custom; or, safer still, that they are contrary or supplementary to our usual experience. The last statement is safe enough; but between that and the adjective 'impossible,' or the equivalent phrase ' contrary to the order of nature,' there is a vast and unfillable gap."²

All this is undoubtedly true. If, for example, we should go to any chemist, or physicist, or physiologist, or scientist in any line of work, and ask him if he considers that everything is known relating to that subject which ever will be known in other words, if the world's knowledge is complete along that line of inquiry — he would most assuredly answer "No!" How much more would this be

¹ Telepathy and the Subliminal Self, p. 110.

² Proceedings S. P. R., Vol. XVII, p. 43.

the case in psychology, where next to nothing is known, comparatively speaking, about the phenomena it investigates. And, as psychical research problems are, very largely, psychological problems, whence the objection? If it be granted that there are any problems in nature as yet unsolved, then their solution becomes an imperative duty for the scientist. All scientific inquiry is based upon that very fact — that there are many problems as yet unsolved and laws as yet unknown. Scientific investigation means simply an organised attempt to discover these laws. Why, then, should some subjects be investigated and not others? In fact, if reduced to definite statements, those who oppose the study of these phenomena upon the ground of \dot{a} priori objection must fall back upon the statement, either that they are not investigated by scientific men, or that they are not investigated in a proper, thoroughly scientific spirit. As both of these statements are absolutely false, I can but inquire again, Whence the objection?

Second. If, then, we grant, for the sake of argument, that it is possible for such phenomena to exist, the next question is, Do they exist? This, of course, is a question which every man must answer for himself; but, in view of the strength of existing positive evidence, the point I wish to here emphasise, in fact the object of this entire chapter, is to show that a negative answer to this question cannot and must not be given upon á priori grounds alone. It can only be answered after a lengthy personal investigation and course of study; and, even should the final result be negative, it must be remembered that it represents that one investigator's opinion only; others may have met with very different results. One may encounter a hundred fradulent mediums before one is discovered who is honest; but that is no reason for asserting that all are dishonest. In view of these facts, then, Professor Huxley's letter to the Dialectical Society,¹ declining to join that committee because "The only case of 'Spiritualism' I have had the opportunity of examining into for myself was as gross an imposture as ever came under my notice," assumes rather a humorous aspect, coming, as it does, from the pen of so profound a thinker as he. And, in viewing the attitude assumed by the majority of persons toward these subjects, one cannot help feeling how irrational and dogmatic they almost invariably are. Of course, we all consider ourselves the criterion and standard of unprejudiced judgment, and feel, in our conceit, "Oh, if others could only view the study of these phenomena in the same unbiased yet critical spirit that I do myself!" Unfortunately, others think in exactly the same way, yet hold very

¹ See *Report*, p. 229.

different opinions regarding these phenomena! And it is here that we have brought vividly before us the extreme *subjectiveness* of our universe, and appreciate, to its fullest extent, while studying these phenomena, the necessity of granting every man his own opinion, and the art of gracefully allowing everyone to retain that opinion without either undue acceptance of the same, or a contemptuous rejection thereof. And, on the other hand, many persons start about their investigations in a wrong spirit. Apart from the fact that but few persons possess a well-balanced mind — neither credulous nor unduly sceptical — many others require to be convinced that such phenomena are possible before they will consent to investigate them! Thus Professor Jastrow declares (apropos of thought-transference), "If telepathy means the hypothesis of a new force, that is, the assumption of an as yet uncomprehended mode of the output of energy, subject rigorously to the physical bonds of material causation which make possible a rational conception of psycho-physiological processes; and if, further, someone will put forth a rational conception of how this assumed action can take place apart from the exercise of the senses, I am prepared to admit. that this hypothesis is (not sound, or strong, or in accordance with the facts, or capable of explaining the facts, or warranted by the facts, but) one which

it is legitimate, though perhaps not profitable, to consider. If, however, telepathy is put forward as a totally new and peculiar kind of action, which is quite unrelated to the ordinary forces with which our senses and scientific observation acquaint us, and which is not subject to the limitations of the material world of causation; if telepathy is supposed to reveal to us a world beyond or behind or mysteriously intertwined with the phenomena of this world — a world in which events happen not in accordance with the established physical laws, but for their personal significance even in defiance of those laws — then it becomes impossible for the scientist to consider this hypothesis without abandoning his fundamental conceptions of law and science;"¹ which amounts to saying, of course, "If you can explain these phenomena to me, I will accept them, but if you admit that they are quite inexplicable, I shall have to reject them forthwith!" Could anything be more irrational? Does it not seem more scientific to accept some sufficiently attested phenomenon and endeavour to account for it afterwards, than to declare \dot{a} priori that the phenomenon itself cannot and does not exist, however well attested, merely because we cannot account for it in our present state of knowledge? Similarly with other subjects. Earlier in this chapter I cited the

¹ Fact and Fable in Psychology, pp. 101-2.

case of a doctor who refused to believe that a "spirit" could return — could "come back, because he does not believe that there is any such thing as a spirit to come back." Obviously, the only way to decide this question is, not to speculate *á priori* upon the possibility of spirit existence, and reason from that the possibility of its return, but to test and establish the possibility of its return, from which we can argue (should that be established) that man *has* a spirit *to* return. Here, as before, it is merely a question of evidence.

And, finally, if it be once admitted that such phenomena do exist — if telepathy, e. g., be proved a fact in nature — the pessimist is sure to arise with his Cui bono? Granting their existence, what is their use? What practical benefit can they be to mankind? Such questions, I believe, are almost invariably asked by persons who are either uninterested or uninstructed in scientific matters. No scientist would, for one moment, be guilty of such a preposterous question. What is the "use" of any scientific investigation, except to find out facts generally unknown and unrecognised? Every new truth acquired, every scrap of information gained by persistent effort is of great importance in helping us to understand and unravel the mysteries of the universe which surround us on every side; and especially is this the case in our attempts to understand that by which and through which every phenomenon is known and appreciated — the human mind. Moreover, if these studies should result, as now seems highly possible, in scientifically demonstrating a future life, their value can hardly be further questioned, even by those who now oppose them most strenuously. And, as I have before stated, this now looks well within the bounds of possibility; and it is a fact that many persons — previously materialists — have become converted to that belief through these very phenomena, scouted, ridiculed and rejected though they be!

In every instance the attacks on this subject may be successfully repelled; in every case the objections can be triumphantly refuted. A great deal more might be said in this relation, but space does not permit. I leave the final judgment to any unprejudiced reader. Meanwhile, one or two final reflections may be noted, which, self-evident as they appear when pointed out, are not by any means seen and appreciated individually by the majority of persons:

First, there is the possibility that thoroughly scientific investigation might tend to *destroy* the existing evidence for supernormal phenomena by exposing and "explaining" these occurrences and by showing them to be merely misinterpreted normal phenomena. At any rate, nothing is to be lost by deciding this question definitely, one way or the other. In the first Circular issued by the American Society for Psychical Research the following sentence occurs, and, as it sums up, very tersely, the point here under discussion, I may quote it in full. It says:

"The Council of the American Society, therefore, feels that the duty can be no longer postponed of systematically repeating observations similar to those made in England, with a view of confirming them, if true, of definitely pointing out the sources of error in them if false. If true, they are of value, and the tracing of their limits becomes a scientific duty. If false, no time should be lost in publishing their refutation; for, if allowed long to stand uncontradicted, their only effect will be to re-enforce powerfully the popular drift toward superstition."

Since this was written, much has been published which tends to destroy the existing evidence, both by exposing frauds and by discovering and eliminating sources of conscious and unconscious error, never before fully appreciated. But, on the other hand, much has been published which establishes, beyond all reasonable doubt, the fact that certain phenomena do occasionally occur which may with impunity be called " supernormal," inasmuch as they are most certainly unexplained and inexplicable by modern science as it stands to-day. I claim that this much

has been definitely accomplished, and that those who deny this are merely ignorant of the existing evidence. And if we analyse the objections of scientific men — why they decline to investigate these problems — we find that in every case their objections practically amount to a dislike for admitting the unpleasant truth, "I don't know!" How absurd a statement in the present condition of the world's knowledge! How hollow the ground beneath such dogmatic denial! How little is yet known compared with what may yet be known! As Prof. William James has so forcibly reminded us, ". . . an audience of some five or six score people, if each person in it could speak for his own generation, would carry us away to the black unknown of the human species, to days without a document or monument to tell their tale. Is it creditable that such a mushroom knowledge, such a growth overnight as this, can represent more than the minutest glimpse of what the universe will really prove to be when adequately understood? No! Our science is a drop, our ignorance a sea. Whatever else be certain, this at least is certain that the world of our present natural knowledge is enveloped in a larger world of some sort of whose residual properties we at present can have no positive idea."¹

1 The Will to Believe, etc., pp. 53-4.

The words of the late Frederic W. H. Myers upon this subject are especially apt. Mr. Myers was a man whose perfect insight and philosophical grasp of nature is seen but once in a generation, and his death is deeply deplored by scientists the world over. Pondering over these problems of death and futurity, and, in so doing, letting his glance rest for a moment upon such dogmatic assertions as these on the part of his scientific brethren, the spirit moved him to write, with his usual strength and beauty of style, yet with his customary tenderness and pathos:

"And yet popular science sometimes speaks as though nearly everything in human nature had been observed already! As though normality had been defined, aberrations classified, a mass of experience acquired which our successors will only have to work out in detail! A vain conceit! a monstrous prematurity! Rather let us remember that only by an abiding consciousness of our own inevitable childishness can we prevent those successors from looking on our religions with pity, and on our science with contempt, while they analyse, with a smile, our rudimentary efforts at self-realisation, remarking, How hard a thing it was to found the race of man."

CHAPTER IV

HAECKEL'S "LAW OF SUBSTANCE" AND IMMOR-TALITY¹

THERE can be no question that the two great fundamental laws of modern-day science are the indestructibility of matter and the conservation of energy. No scientific hypotheses are considered to be more established than these; they are the very foundation stones of Haeckel's philosophy, e.g., and science is more proud of the supposedly complete proof of these dogmas than of any other achievements of the past century. I think I may assume that all my readers are familiar with the central ideas of these two doctrines; and I shall not elaborate them here. I wish only to call attention, in this place, to certain aspects of the theories, in so far as they relate to the problems under discussion, and particularly the question of immortality. For, it will readily be seen that, if materialism be true, if matter and force fill all the universe, and there is no room in

¹ By the "law of substance" Hacckel meant a compound law, composed of the two generally recognised laws applying to matter — that of the indestructibility of matter and the conservation of energy. Hacckel coined his term to include and unify these two.

it for that "third thing" of Huxley's — consciousness — after the organism we know ceases to function; then immortality would be an impossibility, beyond any doubt, and materialism would stand proved. I shall, in this place, discuss these two theories in relation to the problems under consideration; the first briefly, the second at greater length; and I shall attempt to show that these dogmas, even if established, do not have the effect that many persons think they do have; and that immortality and the possibility of the occurrence of psychic phenomena are not rendered impossible thereby, as many persons suppose.

Modern science contends that matter is indestructible; not that the 'individuality' of matter is preserved, so to say, in all its varied forms and manifestations, but that the crude elements of matter persist unchanged, eternally and unchangeably. Until the past year or two, no one dared even question this statement and hope to be considered sane; but lately we have the astonishing phenomena of radium and radio-activity, seemingly showing that the elements themselves can be disrupted and changed into other elements — radium into helium, *e.g.*, as we hear on the authority of one scientist, and copper into helium, as we hear from Sir William Ramsey. This would seem to show that the whole modern conception of the nature

of matter has been changed, and that the ideas of the alchemists have been not only revived, but demonstrated! Again, we see how unsafe it is to dogmatise on any scientific question. The corpuscular theory of light, for instance, which for years back had been discarded as superstition, and so far disproved as to be not worth discussing, has been revived (since the recent discoveries in radio-activity), and now is not without its champions in the scientific world. Many of the dreams of the alchemist are thus proving to be more — far more — than the mere dreams of visionaries; they are apparently becoming scientifically grounded facts. How many more of their teachings will prove to be similarly founded on reality?

And recently, Dr. Gustave Le Bon has claimed that he has caused matter to actually disintegrate and vanish altogether — without return! Matter has been, not *changed*, but actually annihilated! It has (apparently) been resolved back again into that force or those forces of which it is the manifestation, merely; and the dogma of the indestructibility of matter can thus be shown to be untrue. It is true that the scientific world is not so shocked by the publication of this fact as they would have been a dozen years ago. Then, the facts would have been dismissed as unworthy of discussion, or even consideration; and the man who published such statements would have been looked upon as a dreamer or insane! But the recent discoveries in physical science have been preparing the world for some such 'shock' as this; and it is probable that these experiments will soon be received by the world as authentic and conclusive.

Ever since Lavoisier formulated his law of the indestructibility of matter, which seemed as permanent as the heavens themselves, and which has been held without exception for more than one hundred years, no one had dared question it without involving the ridicule and contempt of scientists the world over. It was thought that the indestructibility of matter was, if anything, even more sure than the conservation of energy, --- since more easily verified. And yet, the new physics asserts that matter is not only destructible, but can be dissociated, and caused to vanish from sight! In the physical laboratory, we are told, matter can be resolved back into the energy, of which it is the manifestation, merely. And so matter can be caused to become invisible, and, in fact, actually cease to be matter altogether! It is no longer matter, but energy. And science now seriously talks of the materialisation and the dematerialisation of matter! But let me quote from Dr. Gustave Le

THE COMING SCIENCE

Bon's *Evolution of Matter*, one of the latest and most original of these works. Here he says, in part:

"Matter can vanish without return. . . . Force and matter are two different forms of one and the same thing. Matter represents a stable form of intra-atomic energy; heat, light, electricity, etc., represent unstable forms of it. By the dissociation of atoms, that is to say the dematerialisation of matter, the stable form of energy termed matter is simply changed into those unstable forms known by the name of electricity, light, heat, etc. . . . The atoms of all substances can disappear without return by being transformed into energy."

Well, here is a revolution indeed! What becomes of the old dogmas, so long cherished? Of the law of substance and of the old laws of chemistry and mechanics? What indeed! M. Le Bon was led to believe that there is a world between that of matter and that of pure force,— a world of "imponderable matter." (This reminds us of Andrew Jackson Davis!) And the whole of Book IV. is devoted to "The Dematerialisation of Matter"! After this, there can surely be no *á priori* objection to certain spiritistic phenomena — on the grounds of "impossibility," etc.— as there always has been in the past. It has simply become a matter of

fact and evidence. The old dogmatic objections no longer hold good.

And not only that. Matter can be materialised — long enough, indeed, for it to be photographed! Thus, on p. 164, we read:

"Such equilibria can only be maintained a moment. If we were able to isolate and fix them for good — that is to say, so that they would survive their generating cause — we should have succeeded in creating with immaterial particles something resembling matter. The enormous quantity of energy condensed within the atom shows the impossibility of realising such an experiment.

"But if we cannot with material things effect equilibria able to survive the cause that gave them birth, we can at least maintain them for a sufficiently long time to photograph them, and thus create a kind of momentary materialisation."

Photographs of this materialised matter are given, so that we may see it. And this, be it remembered, is said by a man who is, if anything, opposed to spiritism and its phenomena; who takes "no stock" in Eusapia Paladino, and who is a purely experimental scientist! What are we coming to?

We are coming to this. That the old, Biblical account of creation is probably at basis true, after

all! Matter and all that is in the universe emerged from — nothing, and it returns to nothing. In the last pages of Dr. Le Bon's fascinating book, we have sketched for us the probable fate of the universe. It is this:

"I have demonstrated with regard to the elements of dissociated matter . . . that electric atoms in motion are always accompanied by vibrations in the ether. . . These vibrations of the ether, ever the companions of the electric atoms, most likely represent the form under which these vanish by the radiation of all their energy. The electric particle with an individuality of its own . . . would thus constitute the last stage but one of the disappearance of matter. The last of all would be represented by the vibrations of the ether — vibrations which possess no more durable individuality than do the waves formed in water when a stone is thrown into it, and which soon disappear. . .

"After these ephemeral vibrations, the ether returns to its repose, and matter has definitely disappeared. It has returned to the primitive ether from which hundreds of millions of ages and forces unknown to us can alone cause it to emerge, as it emerged in the far off ages when the first traces of our universe were outlined in the chaos. The

beginning of things was, doubtless, nothing else than a re-beginning. Nothing lends to the belief that they had a real beginning, or that they can have an end."

And so we have the universe traced back to a homogeneous, primal ether in rest. Once this ether receives an initial impulse, and all the rest would follow — ethereal vibrations, electric atoms, material atoms, worlds, the universe! And into the ether all shall return. But what caused that prime, initial impulse? That we cannot say; nor does Dr. Le Bon attempt to answer that question. He says that "forces unknown to us" caused it to emerge. Is there any force unknown to us that could effect this first grand impulse other than some human or divine Will?¹

¹Since the above was written, Dr. Le Bon has issued a sequel to his *Evolution of Matter* in another work, entitled *The Evolution of Forces.* This book, forming Volume XCI. of the International Scientific Series, shows us that the dogma of the indestructibility of energy is no more good and valid than that of the indestructibility of matter was proved to be. Throughout his book, and particularly in the chapter devoted to "The Vanishing of Energy and the End of Our Universe," Dr. Le Bon attempts to show us that energy, too, can be made to vanish without return; and that, in course of time, energy, like matter, will vanish and cease to be; and when that shall have taken place, the universe will have become stable,—practically resolved back into that quiescent 'nothingness' whence it sprang. Such is the latest conception of science! His conclusions are perfectly justifiable, inasmuch as Dr. Le Bon has furnished us with the details of the experiments upon which he founds them; so that any man who cares to may repeat his experiments. The facts, at least, would seem to be

So we come to this: Certainly matter is not the material, coloured, solid matter we think we see in every-day life. I have shown in another place (p. 28) that the world we see is not the real external world at all; what we see is but the duplicate or double of such a world. We create a mental world within ourselves, and that is the only 'real' world for us,— and the only world we know and directly come into contact with. The real world, without, is different from it — of that we are assured; and of its existence, in any such real sense as the majority of persons imagine, there is very grave doubt.

But physical science has always been concerned with things as they seem to be, not things as they really are. No matter whether the world is, in its essence, such as we conceive it or not, it says; that is nothing to do with us for our particular experimental problems and for practical purposes. Even granting that the material world we come into contact with is not such a

established beyond all question; at any rate the central fact, which Dr. Le Bon formulates thus:

"Energy is not indestructible. It is unceasingly consumed, and tends to vanish like the matter which represents one of its forms" (p. 99).

This at all events shows us that the second of the two great dogmas of the past century has been called in question, and, in fact, actually disproved! Before such astounding revelations, one may well pause before pronouncing any fact "impossible." world as it has generally been supposed to be, still, for our purposes and for the affairs of every-day life, we have to take it as if it really were so, and as if it existed in exactly the way that we perceive it. That is very true, and physical science is perfectly justified in taking this stand, for experimental purposes and arguments. Were she not to do so, there could be no real science of physics; it would all be vague metaphysics. But even then, we must not lose sight of the fact that physical science has recently been showing that matter is no such solid substance as has always been supposed — even for experimental purposes. Matter having recently been resolved into electricity, it is shown to be, not matter at all, but to consist of centres or points of force. Again, this revives ancient speculations — but this is a question that cannot be discussed here.

Now, let us turn to the question of the conservation of energy. I shall not, in this place, attempt to question this scientific hypothesis, except in one respect. It is universally held, as my readers doubtless know, that all the forces of the universe — light, heat, motion, chemical affinity, vital force, etc.— are in some manner interrelated and capable of being transformed or changed, one into another; and further, that the amount or

quantity of the force, when thus transformed, is exactly equal to the quantity of the original force or energy. That is, the quantity of force in the universe remains constant, while its quality varies.

So far as this relates to the physical world, pure and simple, this is probably correct, and I shall not attempt to question it here. My plea is, that life, or vital force, is wrongly placed in the list of energies; that it is not capable of being transformed from or into any other force whatever,— as is universally held. All the purely physical energies of the universe may be capable of being thus transformed and transmuted, and to them the law of conservation probably applies; but I contend that the law does not apply to the animal world and to vital force, and I shall now state, very briefly, my reasons for thinking so.

In order to sustain the present system of including the vital energies in the law of conservation, it is necessary to consider those energies as capable of being derived from others, and capable of being converted back into them under suitable conditions. Thus, energy would be supplied to the body, and in some manner converted into vital energy in it; and this vital energy would be given off by the body, and converted into other energies, in doing the muscular and other work necessitated. The way in which the body is sup-

posed to derive its energy is through the food eaten; the chemical combustion of the food ingested supplying the body with its energy, in precisely the same manner as the engine derives its energy through and by means of the coal burnt. The two cases (the steam engine and the body) are thus supposed to be practically identical; the body derives its energy, supposedly, in the same way that any engine derives *its* energy — through the chemical combustion of the fuel supplied; and the process is no more complicated and mysterious in the one case than in the other. That is the present theory, and the one I believe to be essentially untrue.

I cannot now enter into all the reasons for thinking this theory erroneous, as that would take us into many obscure physiological problems, and would be out of place in a volume such as this. In my book, *Vitality*, *Fasting and Nutrition*, I have discussed this question in great detail, and shall here but summarise some of the arguments and theories there advanced. Anyone who wishes to obtain detailed knowledge of the facts is referred to the book mentioned, where my arguments will be found in full.

If the energy of the body were derived from the food eaten, then the process should be purely a mechanical one, and the same amount of food, oxidised in the same way, should yield the same or nearly the same amount of energy to all persons. Yet we know that such is not the case; the athletes' and the weaklings' bodies are built from the same food and about the same amount of it; and yet we know that one has twice or thrice or even ten times the strength of the other. If our strength were derived from the food by a purely mechanical process of combustion, it is hard to see why this should be so.

But we need not go beyond the limits of every-day life and every-day experience in order to see that this theory of the replacement of energy by food is a pure myth. For, "were the generally held theory true, it would only be necessary, when tired, to go first to the dining room, and then to the gymnasium, in order to recuperate our strength and energies. We should ingest more food, then oxidise it off, and the process of its internal combustion would add more energy to the system; and so on ad infinitum. A truly pretty theory, but unfortunately (for it) we all know from actual practical experience that we must, when weary, retire to bed, and not to the dining room, in order to recuperate our energies; and there comes a time when we can sustain ourselves no longer, but must seek rest and sleep, or die; and this no matter how much food we may have eaten,

or how industriously we may have exercised and breathed in order to oxidise it off. As a matter of fact, we know that it is exceedingly unhygienic and unwholesome to eat at all when exhausted by the labours of the day, and that exercise at such a time is most doubtfully beneficial, and that no amount of deep breathing will succeed in indefinitely postponing the oncoming of fatigue, exhaustion and sleep.

"We are supposed to gain our energy through the combustion of food,— just as a steam engine gains its energy through the combustion of fuel; and it is contended that the parallel, in the two cases, is almost exact. But, unfortunately for the theory, the parallel is not exact in just this way: the human engine (the body) reaches a point where it refuses to evolve energy, no matter how much fuel (food) is forced into it, and no matter how full a 'draught' is turned on (exercise and deepbreathing taken). The engine does not recuperate and restore itself, and the body does; the engine continues to wear out, and can never replace its own parts by new ones, and the body can."

Finally, I showed in my book, above referred to, how patients, when fasting (and so going without food altogether) did not get weaker, but, on the contrary, stronger — and this in spite of the fact that we supposedly derive our strength from the food eaten! As the result of these and many more facts and arguments, I think we may safely come to the conclusion that life or vital force is wrongly placed in the list, and that it is not derivable from, nor in turn transmutable or transformable into, any other of the physical forces, but stands alone, separate, distinct, *per se*.

If this be true, we are in a better position to appreciate the position of life and its relative position in the other forces. It is not one of them, but *guides* them, merely, in its association with the body. It is not the product of any chemical process of combustion, but an *essence*, apart from any chemical or physical force in the universe. It is something apart from and superior to these.

Now we are better enabled to understand the relation of this idea — that life is not simply an organic product — than formerly and the relation of the theory to the possibility of conscious immortality and the possibility of psychic phenomena. Let me illustrate. Professor Shaler, in his book, *The Individual* (pp. 301-2), thus expresses the current opinions:

"The functions of the body are but modes of expression of the energy which it obtains through the appropriation of food. As regards their origin, these functions may be compared to the

force which drives the steam engine, being essentially no more mysterious than other mechanical forces. Now, the mind is one of the functions of the body, a very specialised work of the parts known as the nervous system. We can trace the development of this mind in a tolerably continuous series from the lowest stages of the nervous processes, such as we find in the monera or kindred protozoa to man. Thus it is argued that, though the mental work of our kind is infinitely more advanced than that of the primitive animals, there is no good reason to believe that it is other than a function of the body; that it is more than a peculiar manifestation of the same forces which guide digestion, contract muscles, or repair a wound. Furthermore, as is well known, at death all the functions of the organic body fall away together in the same manner and at essentially the same time, so there is, in fine, no more reason to believe that the functions of the brain persist than that a like persistence occurs in the digestive function or in the blood-impelling power of the heart. All this, and much more, can be said to show that the phenomenon of death appears to possess us altogether when we come to die."

All this is perfectly logical and consistent. It would seem to indicate that such is indeed the case,

were it not for this fact. We have seen that, upon the theory defended, none of the bodily energies are derived from the daily food, but from rest and sleep only; that the body is more like an electric motor, in construction, than it is like a steam engine; and consequently the analogy does not hold. As we have seen, "nervous or vital force is not dependent upon food combustion at any time, nor under any circumstances whatever; and consequently mental energy --- one form of nervous energy --- is not dependent upon this physiological process either; it is altogether independent of it; so that, when the process itself ceases, it is no proof whatever --- and there is not even a presumption in favour of the argument --- that mental life ceases at the death of the physical organism. In fact, the presumption is all the other way. So that this main, oft-quoted and central argument against survival is no valid objection at all. . . . Provided my theory be true, it proves to have no foundation in fact. The possibility of conscious survival of death is thus left quite an open question --- capable of scientific investigation or of philosophic dispute; but the grand negative, physiological argument vanishes." From the physiological point of view, therefore, there can be no longer any objection against conscious survival or the existence of psychic phe-

nomena — at least the argument based upon the supposed dependence of mind upon the organic processes and energies. The old, materialistic notion, which compared the body to a lamp, vitality and life to the flame, which simply ceased to exist with the extinction of the lamp, is thus shown to be invalid and based upon an incorrect interpretation of the facts. Life is not the result of any process of combustion or oxidation whatever, but is, on the contrary, the guiding, controlling principle, the real entity, for whose manifestation the body was brought into being.

We have thus traced the vital or life-principle to some external source, outside the body, and have shown that, whatever its nature and ultimate source, it is not made or 'manufactured' within the system by any process of chemical or other combustion, but that it is derived from some allpervading energy. The manner of this connection I have also attempted to illustrate, briefly; and that is as far as I attempted to carry the problem in my Vitality, Fasting and Nutrition, which was a purely physiological treatise, and in which I did not wish to confuse the issue by introducing unnecessary and ultra-speculative attempts at explanation of the nature or *essence* of this force. Its essence I did not therein attempt to explain, and indulged in no speculations as to what this

life or vital force might be. In a book such as the present, however, where the limitations are removed, so far as physical speculations are concerned, and believing as I do that one of the most prominent problems of the Coming Science will be an attempt to find and isolate this life or vital principle, I may state what I conceive to be the nature of this life force, offering the following remarks as tentative only, and not as dogmatic statements of what the real essence of life may be. This is a most venturesome and bold undertaking, I admit — this attempt to define life — but I do so, as I before said, tentatively, and in the hope that speculations, however crude, may at least help in unravelling the mysteries that surround us on every side.

Several times, during my discussion, I called attention to the close analogy of the body to the electric motor — at times using such language as: ". . . The body is not an exact parallel, in its action, to the steam engine, as has heretofore been contended, but is rather that of the *electric motor*, which has the power of recharging itself with life or vital energy, just as the motor of the electrician receives its energy from some external source — the brain and nervous system being that part of us which is thus recharged, and constituting the motor of the human body. . . ." But

I went on to say: "I do not pretend to say what this source is, and I do not feel that I am called upon to explain this any more than I am the essence of vitality. Both must be, in a sense, accepted without explanation, like the connection of mind and matter. I need only say that, to the physicist, the theory should have no objections on that ground, since the fact that such an all-pervading energy exists is becoming more and more manifest. Says Mr. Thurston,¹ 'All space is pervaded by heat, light, electricity and magnetism; why not with vital and spiritual energies?""

Having arrived so far in our investigations and inquiry, the question at once arises, What is this life? That it is in some way electrical in its nature will probably at once suggest itself to my reader. Numberless suggestions and speculations have been advanced on these lines, but the same objection might be raised to them all, *viz.*: If we were to assume that life is in any way electricity, how account for the facts of self-consciousness? Electricity, so far as we know it, is not conscious, but on the contrary is a more or less 'physical' and 'material' force,— just as all other forces are 'physical.' Carl Snyder ² says that, "In the new view, the ultimate cause of muscular action, and,

¹ The Animal as a Prime Mover, p. 334. ² New Conceptions in Science, p. 209. not improbably, of all life-processes, is electricity." But if life is electricity, where does consciousness come in? We seem to be as badly off as ever.

Now, I would begin by calling attention to certain facts in physical science. Electricity is, as we well know, positive and negative. What negative electricity is we know pretty well. The atoms of the universe are built up of it, - according to modern science. But what of positive electricity? Of that virtually nothing whatever is known. Let me state the present position of science by quoting from Dr. Kennedy Duncan's book, The New Knowledge (pp. 188-9), as follows:

". . What is positive electricity, as distinguished from negative, which consists of these corpuscles? The answer is, We do not know. We conceive of an atom as an aggregation of negative corpuscles arranged in a certain number in a certain way, and surrounded by a sphere of positive electricity which balances the negative electricity of the corpuscles within it. We can account for positive electrification as distinct from positive electricity on the supposition that a positively electrified body is one which has lost some of its corpuscles, while a negatively electrified body is one which has gained corpuscles. But this does not tell us what positive electricity actually is.

If it is made up of particles, these particles must either have no mass at all, or very little, for the mass of the whole atom seems to be simply the sum of the masses of its negative corpuscles. Positive electricity as apart from an atom does not seem to exist. It never seems to fly free as the corpuscle does. Its nature is, to-day, a mystery." And again (p. 246):

"What positive electricity is nobody knows: unless the statement that it is a mode of manifestation of the all-pervading ether constitutes knowledge, though even this we do not absolutely know."

Now, I boldly propose that the active phenomenal principle of what we call life is positive electricity. Positive electricity may be the very life-principle in operation — the phenomenal aspect of what we call life — itself in action: life acting or functioning, may be this very positive electricity. It seems to surround and control all matter and yet be no part of it! What is this power or force which seems to play so powerful and yet so insignificant and unmeasurable a part in the universe, if it be not the controlling, regulating power of the universe? And what may that be but life? That positive electricity is immaterial we have evidence; and it is certain that no definite place has been assigned to it, as yet. May not this positive electricity, then, be the active life-principle of the

universe — that which charges our nervous mechanisms during the hours of rest and sleep in the manner I have suggested in my book? There are many facts that might be adduced in favour of such an hypothesis, but this is not the place to produce them. I advance this merely by way of a suggestion. If we could trace these other forces of the universe back to one primary force, ---- they being but its aspects, — and if we could in any way identify this primary or fundamental cause with life or mind, positive electricity being the phenomenal aspect of this very mind in operation,¹ we could begin to see the workings of this law --a law that would unify all science and explain in

¹ It is improbable that mind can ever act *directly* upon matter, but (upon the theory that it acts upon the brain at all, and is not made by it and its functioning) upon some intermediary — semi-material — which some persons have conceived as an 'ethereal body.' This may be very true, and the ethereal body may, in the last analysis, be but a modification of the power I am discussing. Long ago Dr. Dods pointed out that: ". . . Electricity is indeed the connecting link between the mind and the body . . . mind cannot come into direct contact with gross matter. My mind can no more directly touch my hand than it can the mountain rock. My mind cannot touch the bones of my arm, nor the sinews, the muscles, the blood vessels, nor the blood that rolls in them. In proof of this position, let one hemisphere of the brain receive what is called a stroke of palsy. Let the paralysis be complete, and one-half of the system will be rendered motionless. In this case, the mind may will with all its energies, — may exert all its mental powers — yet the arm will not rise, nor the foot stir. Yet the bones, sinews, muscles, and blood vessels are all there, and the blood as usual continues to flow. . . ." This passage has singular interest in this connection.

"LAW OF SUBSTANCE"

a rational manner all that we know of the organic — no less than the inorganic — worlds. So far as we can ever understand life at all, it is probably positive electricity; to us it will remain so, though it is possible that this is itself but the phenomenon of that which lies behind — the noumenon; and that may be will power — that which creates and annihilates worlds: the dynamic force of one, universal, all-pervading, omnipotent MIND.

CHAPTER V

THE ORIGIN AND NATURE OF CONSCIOUSNESS 1

NOTHING, in psychical research, can either help or hinder our progress so much as the attitude of mind assumed, at the commencement of our studies, toward these subjects, and the clearness with which are formed our conceptions of what is believable and what is not. Broadly speaking, however, it may fairly be said that he who begins his investigations with the least prepossession, with the least clearly formed opinions - either for or against — and with willingness to accept any new fact, upon sufficient evidence, even if it should upset his previous convictions and beliefs; in short, that person who possesses an abundance of what Professor Sidgwick so happily termed the "higher common sense," he it is from whom we may rightly expect the greatest results; an impartial representation of the evidence at hand, without either dogmatic positive assertion, or a relapse into that weak and effeminate position of assuming offhand that it is "unknowable." And most assur-

¹ Paper read before the Minneapolis Society for Psychical Research, June 6, 1902. A portion of this paper has previously appeared in print; see *Psychic and Occult Views and Reviews*, May, 1903.— H. C.

edly no other point in our evidence will hinder us more than setting a limit upon our own powers, mentally, and of the view we take of our own personality. If we are to accept the fact (now taught by most psychologists) that our mental life depends simply and solely upon certain physical processes within our brains, and consequently that without these processes there can be no mental life, we are indeed crippled and confined, in our outlook, to a certain narrow field, *viz.*, how far can our senses be sharpened and our nervous system trained to receive more fully certain fine — but obviously physical — indications as to what is occurring around us?

Now, one great blow which this "narrow" outlook upon the universe has received is the large and constantly increasing acceptance of telepathy — of the fact, that is, that certain impressions can and do reach another mind quite independent of the ordinary and recognised avenues of sense. "But this fact," as Mr. Myers has admitted, "does not in itself carry obvious proof of anything in man which the materialistic hypothesis might not cover. 'Brain waves' might be a form of ether waves, or in some way analogous thereto," — though it has repeatedly been shown how improbable such a theory is. But, apart from this, there are, indeed, very few facts incapable of being classified (I will not say explained) in some way under the materialistic hypothesis. So wide an acceptance is this latter theory receiving, in fact, that the majority of Continental scientists have given up all thought of mind existing apart from matter, and consequently have come to the conclusion that "a future life, of any sort, is hardly worthy of serious consideration."

Now, such a position as this can only be met upon its own ground, and answered by facts as strong as those advanced by the materialistic school. This subject, of such vast importance to man, can no longer be argued from the same standpoint as formerly; the subject of a future life can no longer be based upon emotional craving or theological dogma; it must withstand the test of evidence. Here, then, is a point which can definitely be decided either one way or the other. Are there, or are there not, among these problems of psychical research, such evidential data as will decide, more or less definitely, the question, by producing such undeniable facts and evidence as will tend to show that man's survival of bodily death is indeed a great reality, and no mere figment of the imagination? Such evidence, the strongest ever yet advanced, may be found in full in the Proceedings of the Society for Psychical Research (S. P. R.), and repugnant as the idea of an *experimentally proved* future life may be to some, it is nevertheless the only evidence forthcoming. It is upon such evidence as apparitions and haunted houses; upon the hidden depths of man's consciousness, as evoked under certain abnormal conditions; but above all, upon the trance utterances of the famous Boston medium, Mrs. Piper, that those scientific men who have become convinced of a future state of being base their conclusions and arguments, and I cannot too strongly advise my readers to read and to study that evidence in its complete and cumulative form.

But this chapter is not to be devoted to the evidence itself, but rather to a consideration of certain *à priori* objections which have been raised against this subject, and particularly to a discussion of the materialistic standpoint, in its relation to the phenomena of mind. For it must be admitted that if science can show that such a thing as a future life is an utter impossibility, then, no matter what our previous opinions or convictions may have been, we are bound, as lovers and followers of truth, to reject this long-coveted treasure, however much our instincts or desires may be to the contrary. And it is such a proof as this which experimental psychology claims to have brought forward. Its arguments are chiefly these: That the brain and nervous system are those parts of

our being which form and compose our mental life, and upon which the latter is wholly dependent for its existence.¹ For every thought there is an accompanying physical change in the brain substance — from which the obvious inference to be drawn is that when there is no more brain there can be no more thought or consciousness. Again, should you strike a man upon the head with a bar of steel, consciousness ceases for the time being - owing, apparently, to the derangement of the brain's functions; and should the blow be dealt with more severity and greater structural damage take place, the man ceases to exhibit . thought or consciousness-not only for the present, but for all time; he is, in fact, what we term "dead." Again, should you mix poison with the blood of any individual, and this be carried to the brain through that medium, the corresponding mental "states" or conditions invariably show themselves; the organ of mind has been tampered with, and consequently the mind itself is deranged. But more than all this, it has been shown that injury to, or removal of, certain portions of the brain affect certain portions (if I may so express

¹ A typical example of the position of the scientific world is to be found in Lowell's *Occult Japan*, p. 312: "Whiteheating of the cells (of the brain) we call consciousness. Consciousness, in short, is probably nerve-glow."

it) of consciousness and thought. Piece by piece, section by section, as the physical and obviously material brain is removed; so bit by bit, and little by little, the mental life disappears, until not a vestige of it remains.

Now, all this most certainly tends to show that our conscious existence is absolutely dependent upon our very material brain, and consequently the formula, "Thought is a function of the brain," is so widely accepted and believed that almost any psychologist "will tell you," as James humorously puts it, "that only a few belated scholastics, or possibly some crack-brained theosophist or psychical researcher can be found holding back, and still talking as if mental phenomena might exist as independent variables in the world." Now, all this is strictly common-sense and to the point, and the fact is certainly there that for any form of a future life we may postulate we must of necessity take into account this undoubted brain action, and subscribe, in one sense or another, to the old psycho-physiological formula, "Thought is a function of the brain." The question is, Does this undoubted fact of neurosis or nervous change, accompanying all thought, deter us finally from accepting any such condition as a future life, for the reason that thought and consciousness cannot

120 THE COMING SCIENCE

exist apart from matter? I venture to think that it does *not*, and I shall now endeavour to justify this statement and make good my position.

In the first place, then, "it would appear that the supposed impossibility of its continuing comes from too superficial a look at the admitted fact of functional dependence. The moment we inquire more closely into the notion of functional dependence, and ask ourselves, for example, how many kinds of functional dependence there may be, we immediately perceive that there is one kind at least that does not exclude a life hereafter at all. The fatal conclusion of the physiologist flows from his assuming off-hand *another* kind of functional dependence, and treating it as the only imaginable kind." I shall here briefly recapitulate these theories for the sake of clearness, using the terse language of Prof. William James in so doing:

". . One cannot see more than two really different sorts of dependence of our mind on our brain; either (i) the brain brings into being the very stuff of consciousness of which our mind consists; or else (ii) consciousness pre-exists as an entity, and the various brains give to it its various specific forms.

"If supposition (*ii*) be the true one, and the stuff of mind pre-exists, there are, again, only two ways of conceiving that our brain confers upon it the specifically human form. It may exist:

"(a) In disseminated particles, and then our brains are organs of concentration; organs for combining and massing these into resultant minds of personal form.

"(b) In vaster units (absolute 'world soul' or something less), and then our brains are organs for separating it into parts and giving them finite form. . . There are, thus, three possible theories of the brain's function, and no more. We may name them severally: (i) The theory of production; (ii) the theory of combination, and (iii) the theory of separation." ¹

Now, it is to the first of these theories that the majority (but by no means all) of the psychologists cling; and it is upon this theory that their arguments are based; but in the absence of all definite proof either for or against, we are surely entitled to consider the two latter theories as possibilities not to be summarily rejected. Indeed, apart from the fact that one theory involves some such hypothesis as "spirit" and the other does not, the two theories are exactly on a par, neither being exactly proved, explained, nor apparently provable or explainable with our present knowledge

¹ Human Immortality. By Prof. William James.

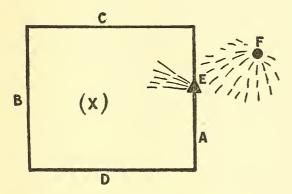
and data. And, apart from the above-mentioned difficulty, the latter theories, involving some sort of transcendental world, lend themselves very naturally to the explanation and elucidation of those psychical phenomena — so-called "miraculous cures," telepathy, premonitions, and the like --- which are exceedingly difficult, if not impossible, to explain and classify on the "production theory."

And now let us see how — in the latter theories advanced - consciousness is to be conceived as operating upon and through us; or rather our brains, which are the "seats" of consciousness --whatever view we take of our mental life. First of all then, I shall assume, for the sake of argument, that consciousness may really exist apart from our physical organism, but is only manifest to us - to our senses - while operating through that organism; ¹ and this I shall endeavour to illustrate by a simple analogy. In the accompanying illustration we will suppose that the vertical dividing line, A, represents an opaque wall; forming, in this case, with the walls, B, C, D, a perfectly air-tight chamber, into which no light can possibly enter. In this wall, A, a small opening has been made and a glass prism, E, inserted — as shown --- upon which falls the light of the distant sun,

¹ Save in telepathy, etc.— H. C.

ORIGIN OF CONSCIOUSNESS 123

F; and it is through this prism that light is refracted into the enclosed chamber — that being the only light obtainable. Now, it will be observed that, in this case, anyone living within that cham-



oer can have no idea or conception of the sun's actual, unimpeded light — would have no knowledge, in fact, of any light at all not obtained through our prism; and, had he always lived within that chamber, would disbelieve in any other light whatever. Further, if this prism should become cracked or marred in any way, a corresponding defect would be noticed in its refracting qualities; and, with every additional crack or chip, its utility would be still further impaired; in short, *its function would be deranged*.

And now suppose that this sun should represent

consciousness — free and unimpeded from all its material limitations; that we should be the inhabitants of that chamber; and that our brains should represent this prism, by which and through which consciousness manifests itself. Many things fall into place on this analogy. First, here is a full and complete answer to the materialist that, as the brain is injured, a corresponding mental derangement takes place. This, as we have seen, would be the case on the "transmission theory," just outlined above. If a man loses consciousness as soon as his brain is injured, it is clearly as good an explanation to say that the injury to the brain destroyed the mechanism by which the manifestation of consciousness was rendered possible as to say that it destroyed the "seat" of consciousness. On the other hand, there are facts which the transmission theory suits the better. If, for example, as sometimes happens, a man after a time more or less recovers faculties of which the injury to his brain deprived him, and that not in consequence of a renewal of the injured part, but in consequence of the inhibited functions being performed by the action of other parts, the easiest explanation certainly is that consciousness constitutes the remaining parts into a mechanism capable of acting as a substitute for the lost parts. Again, this analogy would explain

124

and answer the difficulties raised, and the objections brought forward against this theory on the ground that the mental faculties apparently grow with the brain and decline with the brain's decay.¹ For, in that case, our prism would be small in childhood, and consequently admit less light in actual volume, but *that* light would be clearer and purer than that refracted in later life, when the glass or prism had become dulled and blurred with constant use and exposure; and, indeed, this proves to be the case — for childhood's imagination and impressionability are with difficulty stamped out and replaced by the more prosaic and so-called "rational" view of things necessary in our modern civilisation.

And again, as to the effects of drugs upon the brain, and arguments of that nature. The reply is much the same for all these objections: if you destroy the organ through which, or by which, consciousness manifests itself, then certainly that consciousness cannot manifest properly; just as, in the above case, if we injure or destroy our prism, then its refracting properties are impaired. But we do not injure the *mind* — the actual consciousness — any more than we should, in the above case, destroy the sun.

And yet again: it is hard to see, on the material-¹ Haeckel, The Riddle of the Universe, p. 147.

istic theory, how the mind can effect those wonderful mental cures which have now become so numerous; for, from their point of view, the mind is but a function of the brain, just as secreting bile is a function of the liver! But if we can conceive ourselves - our real selves - acting upon our material body through the brain, and directing the other functions of that body, more or less, thereby, by means of our will - a part of our mental life --- then we begin to see how these cures are effected; to have some faint inkling of the hidden processes at work within ourselves which bring these results to pass. And, finally, the above theory is perfectly compatible with the general trend of Evolution, for the reason that as the material brain advances in development, so it admits a correspondingly greater influx of mental life. "If the material encasement be coarse and simple, as in the lower organisms, it permits only a little intelligence to permeate through it; if it is delicate and complex, it leaves more pores and exits, as it were, for the manifestations of consciousness."¹ The above theory, then, contains nothing which is absolutely opposed either to common-sense, philosophy, or science.

Having now shown, as I trust I have, that these other theories of consciousness — though purely

¹ F. C. S. Schiller, Riddles of the Sphinx, p. 293.

theoretical and speculative — still contain nothing which absolutely *contradicts* what is already known of physiology or the physical sciences, I shall endeavour to combat, in the remaining portion of this chapter, the materialistic or "production" theory of consciousness, and to point out the many difficulties to be taken into account in an acceptance of that theory. For if it is hard for us to conceive how the "combination" or "separation" theories - spoken of above - actually operate, the production theory presents just as great and insurmountable barriers. As before stated, then, the materialistic standpoint is simply this: that certain physical changes take place in the brain. These changes give rise — in some unknown way - to definite thought. What these changes actually are, and all the experiments made and inferences drawn therefrom, may be found in the standard works on physiological psychology,¹ and this is not the time nor the place to discuss them. То place, briefly, a few of the difficulties of the production theory before you, I shall in the first place quote the opinions of some of the world's greatest scientists upon this very subject. Professor Tyndall, for example, says:

"The passage from the physics of the brain to

¹ See, e. g., Ferrier, Functions of the Brain; Bastian, The Brain as an Organ of Mind; Ladd, Psychology, etc.

the corresponding facts of consciousness is unthinkable. Granted that a definite thought and a definite molecular action in the brain occur simultaneously, we do not possess the intellectual organ, nor apparently any rudiment of the organ, which will enable us to pass, by a process of reasoning, from the one to the other. Were our minds and senses so expanded, strengthened and illuminated as to enable us to see and feel the very molecules of the brain; were we capable of following all their motions, all their groupings, all their electrical discharges, if there be such, and were we intimately acquainted with the corresponding changes of thought and feeling, we should probably be as far as ever from the solution of the problem: How are these physical processes connected with the facts of consciousness? The chasm between the two classes of phenomena would still remain intellectually impassable."¹

Hear also the words of Professor Huxley upon this subject — a man who, by the way, has frequently been charged with being a materialist. He says:

"I understand the main tenet of materialism to be that there is nothing in the universe but matter and force, and that all the phenomena of nature are explicable by deduction from the prop-

1 Fragments of Science, 5th Ed., p. 420.

erties assignable to these two primitive factors. . . But all this I heartily disbelieve. In the first place, it seems to me pretty plain that there is a *third* thing in the universe — to wit, consciousness — which, in the hardness of my heart or head, I cannot see to be either matter or force, or any conceivable modification of either, however intimately the manifestation of the phenomena of consciousness may be connected with the phenomena known as matter or force."¹

Finally, I give here a brief résumé of an article by Dr. Romanes on "The Fallacy of Materialism," which appeared in the *Contemporary Review* many years ago. In doing so, however, I shall quote also quite freely from Dr. Thomson's excellent summary of this question — including a review of the above-mentioned article — in his clever booklet entitled *Materialism and Modern Physiol*ogy of the Nervous System. To return to Dr. Romanes, however, I may state his argument as follows:

Premising that when once the invariable association between material changes and mental changes is recognised, there arises the question as to the *nature* of this constant association, Dr. Romanes proceeds to discuss the question: Can

1 Collected Essays.

the material changes in the brain cause the mental changes? The affirmation to this he assumes to be the contention of materialism, and he begins by summarily ruling it out of court as having no case to argue. For he says that where the question becomes one, not as to the fact of the association, but as to its nature, "Philosophy . . . must pronounce that the hypothesis is untenable, for the hypothesis of its association being one of causality, acting from neurosis to psychosis -that is, from nervous structure to mental processes -- cannot be accepted without doing violence not merely to our faculty of reason, but to our very idea of causation itself. For our idea of causation is not derived from without, but from within, and what we call the evidence of physical causation is really only certain mental modifications following one another in definite sequence. Hence we can have no evidence of causation proceeding from object to subject. The mind, therefore, cannot prove its own causation from matter or motion, because all evidence of that must itself be mental evidence, and nothing but mental; and hence it is as impossible for the mind thus to prove its own causation as it is for water to rise above its source."

Having thus opened the argument, as is the lawyer's custom, by showing that the materialists

really have no case at all, Dr. Romanes agrees, however, to allow them a chance to say something by remarking that they are fond of asserting that the evidence of causation from neurosis to psychosis is as good as such evidence can be proved in any other case. But, without considering the above-mentioned difficulty that there can be no such real evidence at all, he says the statement can be proved to be untrue by treating the problem on the lower ground of the supposed analogy itself. For the only resemblance between this supposed case of causation and all other cases of causation consists in the invariability of the correlation between cerebral processes and mental processes. In all other points the analogy fails. For in all cases of recognised causation there is a perceived connection between the cause and the effect; the antecedents are physical and the consequents are physical. But in the case before us there is no perceived or even conceivable connection between cause and effect, for the causes are supposed to be physical and the effects mental. And this alone is enough to separate this case from all other known cases of supposed causation, the difficulties being pointed out in the above extracts from Tyndall and Huxley.

The next objection to materialism which Dr. Romanes finds is that in all other known cases there is an equivalency between cause and effect. But, as between matter and motion on the one side, and feeling and thought on the other, no such equivalency is conceivable. Some few materialists, he says, have sought to meet the difficulty in the only way it can be met, by "boldly asserting that thought and energy are more or less transmutable. . . . On this view thought becomes a mode of motion and takes its rank among the forces as identical in nature with heat, light, electricity and the rest." But this view he regards as also inherently impossible. Mind presents absolutely no point of real analogy with motion, because involved with the essential idea of motion is the idea of extension, for motion only means translation in space of something itself extended. But thought, so far as we possibly can know it, is known and distinguished by the very peculiarity of not having extension, and therefore, for motion to become thought, it must cease to be motion, and thus cease to be energy. Thought, consequently, instead of being equivalent to so much energy, destroys energy, and would thus constitute a unique exception to the otherwise universal law of the Conservation of Energy. And therefore, for these and other considerations of a more metaphysical kind, which we have no time at present to quote, Dr. Romanes finally concludes that, at the bar of Philosophy, Materialism must be pronounced conspicuously inadequate to account for the facts.

But if matter cannot cause mind, or physical changes cause mental changes, how then are brain and thought associated? In answer to this question, Dr. Romanes first discusses what he calls the theory of Spiritualism. By this term he means that view which conceives the mind as having an independent existence, or substance apart from the brain, and capable of acting upon it, and so using the brain as the mechanism of its thought, --- for he uses the term "spirit" as interchangeable with mind. This theory he also summarily rejects, because it seems to him to be merely the theory of materialism inverted; and that, therefore, most of the arguments adduced in his analysis of materialism are just as available against "spiritualism." For he claims that in whatever measure it is inconceivable that neurosis should cause psychosis, in the same measure must it be inconceivable that psychosis should cause neurosis; seeing that it is as impossible to imagine mind affecting energy as it is to imagine energy affecting mind.

This is a favourite way among this class of writers of disposing of mind; and it is obvious that such a dictum leaves us in mid-air as to what anything mental is — for, if physical changes cannot cause mental changes, nor mental changes cause

134

physical changes, what are mental changes anyway?

One answer to this question is - that mental and physical phenomena, though apparently diverse, are really identical! The apparent dissimilarity arises only because we perceive these things in a different light, as it were; and that they are double only in relation to our modes of apprehension. Just as the tremors of a violin string are phenomenally very different, according to our mode of apprehending them, with the eye or with the ear, so the tremors of a nerve are, both physical and mental, apparently dual; the event may be really singular, as, e. g., an air on the violin is one with the vibrations of catgut, yet is perceived by us as varying absolutely. "But," continues Dr. Romanes, "if the physical and the mental are thus supposed to be identical in the brain, the physical and the mental must be identical universally, for there is no reason to suppose the physics of the brain differs from physics in general. All physical processes, therefore, are likewise mental! We have not, indeed, to suppose that our physical processes (motions) think or feel - we have only to suppose that all physical motions present the "raw material" of mind, which has not, as yet, been wrought into feeling or thought, just as the physics of crystallisation has not proceeded so far in complexity or refinement as the physics of life." In support of this view namely, that we cannot draw anywhere a line between physics and psychics — Dr. Romanes quotes a passage from what he terms "the most closely reasoned and profound of Professor Clifford's philosophical writings," which reads:

"Mind-stuff is the reality which we perceive as matter. A moving molecule of inorganic matter does not possess mind or consciousness, but it possesses a small piece of mind-stuff. When the molecules are so combined together as to form the film on the under side of a jelly-fish, the elements of mind-stuff which go along with them are so combined as to form the faint beginnings of sentience. When the molecules are so combined as to form the brain and nervous system of a vertebrate, the corresponding elements of mind-stuff are so combined as to form some kind of consciousness. When matter takes the complex form of a living, human brain, the corresponding mind-stuff takes the form of a human consciousness, having intelligence and volition."¹ Dr. Romanes, however, decides that a fatal objection to this theory is that

¹ See Professor Strong's recent work, Why the Mind Has a Body (1903), which has appeared since the above was written. See also Prof. William James's attack on the theory in his *Principles of Psychology*, Vol. I, Chapter VI, "The Mind-Stuff Theory," and references therein given.

it is unable to explain the fundamental antithesis between subject and object — the perceiver and the perceived — and concludes, as he began, by stating that the relation between matter and mind is inexplicable.

Thus, just as Herbert Spencer leaves us in the great "Unknowable," and Huxley in the "Inconceivable," so Dr. Romanes lets us find our final intellectual rest in the "Inexplicable"! Surely when such diverse opinions and admitted ignorance upon this subject, as here shown, are held by some of the leading scientific minds of the day, no one can dogmatise very much upon the subject either one way or the other. And, whereas it must be admitted that thought is, in one sense or another, a "function" of the brain, a very different statement of the case, from that generally held, may be made as follows: Instead of consciousness or thought being a function of the nervous tissue, the perception of a sensation through nervous tissue is a function of consciousness; that is to say, consciousness is independent of nervous tissue, and uses nervous tissue to perceive with. In this sense our two brains - for we have two - would be the instruments of consciousness, but are not conscious themselves; just as our eyes are the instruments of sight, but do not themselves see; in the same way that a microscope is the instrument for

136

magnifying minute atoms of matter, but cannot itself see and appreciate the magnification. Why? Because it has no consciousness of its own.

And thus, out of a multitude of opinions, we arrive very nearly at our starting-point, and have merely found, in our circuitous route, that nothing definite has been decided upon this point, either for or against any particular theory; ¹ and it is, very largely, merely a matter of personal opinion which theory is accepted; and this will vary with each individual according to his knowledge, environment and outlook upon the universe in general and upon these subjects in particular. Therefore, in this state of uncertainty, let us investigate those facts which tend either to prove or to disprove this or that theory upon experimental and scientific grounds. For it must be admitted that if a man's so-called "spirit" can be isolated, and got into communication with, after death — and many of the world's greatest scientists say that it can, and that they have actually done so - if this, I say, is a fact, then it follows as a matter of course that man has a "spirit" or "soul" to return; which would be positive, decisive evidence. But this can only be decided, as before emphasised, by actual experimental evidence. Let us, therefore, press our investigations in this direction with as much

¹ James, Psychology, Vol. I, pp. 134, 138, 154-8, 216, etc.

energy and zeal as in any other; fearlessly tracing to its fountain-head any evidence, any facts, seeming to throw light upon these subjects, and following up that evidence wherever it may lead us. If we encounter difficulties and disappointments on the road — these are to be expected in investigations such as ours; but they should only goad us on to further efforts - for surely the subject is interesting and important, from any point of view whatever. And if, finally, there is, amidst all the fraud, delusion and reeking superstition in which psychical research is unhappily steeped, some grain, however small, of a transcendental faculty in man, which our science of to-day does not recognise, but of which, occasionally, faint glimpses may be caught in investigations such as ours,then most assuredly we should pursue these investigations — this science — with a mind as free from prepossession as it may be our fortune to possess. We live in the hopes of a great discovery, far-reaching and of vast import, and, in such a cause as this, " worthy should be that effort and great should be that hope!"

ENSUING CORRESPONDENCE

Though the following discussion may not appear at first sight to have any direct bearing upon the foregoing essay on Consciousness, or to follow directly from it, it will become apparent as we proceed that it is a more or less direct continuation of that essay, inasmuch as I shall be called upon later to defend the position I there occupied; while it makes clearer certain obscure points which needed, perhaps, further elaboration. This discussion began by the publication in *The Open Court* magazine for June, 1905, of the following criticism of Dr. I. K. Funk's interesting book on psychical research, *The Widow's Mite*. The following is the article (I quote verbatim):

> THE WIDOW'S MITE DR. I. K. FUNK'S PRACTICAL JOKE BY THADDEUS B. WAKEMAN

"As a people we are measured by the books we read and what we think of them. Dr. I. K. Funk's big book of over 500 pages, on 'The Widow's Mite' and the 'Spirit' of Henry Ward Beecher, has measured a great mass of readers to be far back of this age of science — which is not won-139 derful; has it not done *the same* for a large part of our leading university professors and educators? — a fact, if it be one, of the greatest importance.

"The book tells of two little ancient coins, one black and genuine, and the other light and dubious, supposed to have been like those of the widow's 'mites' mentioned in Mark and Luke. They were borrowed by Funk and Wagnalls to be used in the Standard Dictionary and then returned. The spurious one was used by mistake, but both were then put in the safe in an envelope. Dr. Funk ordered the genuine one to be returned to its owner, Professor West, a neighbour and friend of Henry Ward Beecher and principal of a young ladies' seminary on 'The Heights.' Nine years after this, and after the death of Professor West and Mr. Beecher, Dr. Funk was attending spiritualistic séances in Brooklyn. At one of them the medium suddenly gave a message to the Doctor, purporting to be from the 'spirit' of Henry Ward Beecher, requiring of him the immediate return of this borrowed genuine black coin to its owner. The Doctor answered that it had been returned years ago. The spirit replied that it had not; but the medium could not learn to whom or where it should be returned. Upon search the envelope with both coins in it was found in the safe where

they had been placed, presumably, nine years before.

"Result: General surprise! Was this at last one genuine, decisive 'spirit test'? Everyone at the Doctor's office who knew of the coin supposed that it had been returned. The medium and all connected with the séance swore that they never knew or heard of any such occurrence before this Beecher message. Professor West's son and executor certified that he is as certain as he can be of anything that passed in his father's mind ' that he, too, supposed that the coin had been returned.' The coin was rare and of great value — some say worth \$2,500.00.

"Spiritualists claimed that the facts proved this message to be indubitable, and that Mr. Beecher's personal, living continuous consciousness, or spirit, was *a fact*. They even obtained another message, purporting to be from him, to the effect that he had sent this message about a trivial matter because, from the nature of the facts, he saw that 'the test' must be conclusive, and that he wished to open the portals to the earth from the spirit realm, from which he had most important matters to communicate. But notwithstanding the persistent efforts of Dr. Funk and of very many mediums all over the earth, those 'most important matters ' have wholly failed to appear. Finally

even the mediums seemed to tire of their efforts, and this message was 'received' from Mr. Beecher, who was bothered beyond celestial endurance; viz., 'The widow's mite bother Dr. Funk to their hearts' content for aught I care. I will have nothing more to do with the affair.' Thus the Beecher wit came to his protection and relief; which, as Dr. Funk adds, 'has at least something of the old Beecher ring in it.'

"Thus this 'spirit' incident ends in nothing, as they all do, when it comes to anything of value or use.¹ But far otherwise is the *revelation* of the consequences and moral of the story to those who think. Dr. Funk was at first under a great variety of doubts and be-puzzlement. This big book is his thrifty way of obtaining relief therefrom, and also fame, a good 'ad.,' and then too 'shekels ' — worth far more than mites. Two of his experts intimate that it is also his 'jest' and 'practical joke,' whereby his wit and humour also came to his relief — a view in which many a reader may concur, and to which finally the good Doctor may contribute a smile.

"The gist of the book consists of a statement of the case, which was submitted to forty-two experts,

¹ This, it will be observed, is a mere dogmatic statement or opinion; and is, I venture to think, not in accord with the facts.— H. C.

chiefly professors of physics and psychics in our leading universities and colleges, commencing with the voluminous Professor James of Harvard. Then follow their answers, mostly in the Appendix. With all this we have an epitome of the best spiritualistic literature — trying to make this revelation and test seem probable, if not certain, as the work of the continuous Mr. Beecher.

"The Doctor might have consulted others with other results. For instance, many an impartial counsellor-at-law would have given him the maxim of old Horace: Nec Deus intersit, nisi dignus vindice nodus - ' Don't call in a God (or even a Beecher), unless the knot is worthy of such an untier.' That is, the supernatural is never in order until the natural, relevant to the case, is all known and exhausted in vain. Thus, it was not natural or probable for a coin of that interest and value to be unreturned and lost without being talked over by West and Beecher in the circle of their curious friends, some of whom were largely spiritualistic. Some of the friends or visitors of this resident medium would almost certainly hear of the story, and the medium consciously or unconsciously get it from them. Then, she may have forgotten it during the nine years and recalled it unconsciously in trance; as is well attested in similar cases, even of languages heard and

afterwards repeated in trance, by those at other times ignorant of them. Then comes in explanation the possible fraud or collusion of some of the parties, including the medium. Indeed all of the natural solutions suggested by Dr. Funk and others in the book are to be taken as — more probable than any 'spirit' from another state of existence. This much the counsellor would say resting upon the common rules of evidence and experience.

"But Dr. Funk says, in effect, that all such supposing does not negative the *possibility* of 'spirit' existence and communication. Well on this point he might and should have consulted an up-to-date biologist, as well as professors of physics and psychics. And since he wandered all over the world (including Japan) to find experts, why did he not include Prof. Ernst Haeckel of Jena, or some like scientist, without *reserve* in behalf of scientific truth?¹

"Professor Haeckel is by many regarded as the first scientist of our age in his department — the one in which this question properly comes. In his *Thesis* sent to the Congress of Liberals held at St. Louis in October last, he gives, not his verdict,

¹ Dr. Funk *did* include in his book the statements of several men just as opposed to spiritism as Professor Haeckel.

but that of up-to-date science on this very point in these words; viz.: 'The soul of man has been recognised as the totality of brain functions. . . . This activity, of course, becomes extinct in death; and in our days it appears to be perfectly absurd to expect, nevertheless, a personal immortality of the soul.' That is, the scientific and social immortality have become one, and they take the place of the 'personal.' Thus science says: 'Not possible'! And this not as the opinion of one man or set of men, but the result of the facts of biology --- commencing with the simplest protoplasm, and rising with all of its cellular combinations through all vegetative and animal forms and convolutions to the brain of man, and the cooperation of human societies.

"This induction from all of the facts is clinched, he would say, by the two bottom laws of science that is, of the universe; viz.: The laws of 'substance,' or 'correlation,' and the law of 'economy.' By the first law, all mental activities and processes, including the 'soul,' are the sequent or concomitant correlates which are found to be the results and equivalents of preceding correlative changes occurring in protoplasmic organisms, and in those oNLY! By the law of economy, the fact that these 'activities' are the results of protoplasmic changes and actions is conclusive that they are not, and cannot be, produced or exist in any other place or way. For every such activity is the result of *equivalent* correlations only, which cannot be changed without a *different* result, and which cannot cease without a ceasing of their activity at the same time.

"After the death of Mr. Beecher there was, therefore, no possible spirit, soul, or consciousness of him extant to bother or be bothered about this 'widow's mite' or anything else. Any other supposition is not only untrue, but 'absurd.' This 'recognised' fact, as Professor Haeckel styles it, is now 'the commonplace of science.' Thus, for instance, it underlies all medical treatment of mental ailments, except by frauds, quacks and the uninformed.¹ In one or the other of those unenviable classes must not those stand who, by words, *silence* or otherwise, admit or imply that Mr. Beecher's conscious spirit or soul was not *existent*, so as to have possibly made this pretended communication?

"Now, Dr. Funk's book reveals this astonishing *fact; viz.:* Not a single one of the said jury of forty-two experts does other than to directly or

¹ Here Mr. Wakeman shows ignorance himself of the fact that, only in some instances, is any *organic* change discovered by *post-mortem* examinations of the brains of insane persons.

implicitly or tacitly *admit* the *then* existence of Mr. Beecher's soul, and its consequent ability to communicate as claimed! But this fact is not only astonishing: it is exceedingly important. Do our universities and colleges exist for the purpose of 'raying out darkness'? Was there not *one* great professor who knew enough and dared enough to tell Dr. Funk the plain truth — the commonplace and bedrock of science?

"What kind of leaders and teachers are we to have for the next generation when those who are 'liberally educated' in this accept only a practical suppression of the truth as to the most important matter that science has made known to a human being — the nature, origin, duty and future of himself? Let us all have the truth, the whole truth and nothing but the truth. For 'in that only is there wisdom and safety,' as old Goethe told us long ago.

"Aside from their bearing upon the substance of Dr. Funk's book, those arguments of 'induction,' 'correlation' and 'economy' are just now of extraordinary importance, for Professor Haeckel has seriously proposed to make them an important part of the basis upon which the free-thinkers of every country should organise. I have never been able to answer those arguments, and never could

find anyone who could. If any such person exists, the occasion calls for him, and I believe *The Open Court* will be open to him."

THE IMMORTALITY OF THE SOUL A REPLY TO MR. THADDEUS B. WAKEMAN BY THE EDITOR ¹

"Some time ago, Dr. Isaac K. Funk, of the wellknown publishing firm, submitted to us evidences of spirit communication concerning an ancient Hebrew coin called 'the widow's mite,' which had been used by Funk & Wagnalls for illustration in their *Standard Dictionary*. Dr. Funk was reminded of the coin in a spiritualistic séance of an unprofessional medium who spoke in the name of the late Henry Ward Beecher, claiming that it had never been returned to its owner. The medium's claim (or shall we say the claim of Mr. Beecher's spirit) was substantiated, for the coin was discovered in the safe of Funk & Wagnalls, where it had lain unheeded for nine years, and it was now duly returned to the owner or his heirs.

"Dr. Funk submitted the case and its value as evidences of genuine spirit communication to a large number of scholars, scientists, experts, psychologists, etc., and then published the whole ac-

¹ Dr. Paul Carus. This "reply" appeared in the same issue as the foregoing criticism.— H. C.

count, together with these opinions, in a book called The Widow's Mite. The case was also referred at the time to the editor of The Open Court, but his reply was too uncompromising to recommend itself for publication. It admitted the strangeness of the occurrence, provided that there was neither error in the facts, nor fraud, but it declared that a cross-examination of the several persons involved would be indispensable, and this being excluded we had to abstain from giving a definite verdict on the merits of the case. The book now lies before us, but the evidence being still hedged in with 'ifs' and 'buts' we cannot regard it as convincing. Considering the unsatisfactory character of a negative verdict, we delayed our review and kept the book on our shelf without being able to sum up the case in a statement which would do justice to Dr. Funk's zeal and circumspection, yet also point out the weak spot of his argumentation.

"At this juncture Mr. Wakeman's article came to hand and forced the issue again upon our attention. His verdict is very direct and simple. Quoting Haeckel he denies the possibility of the occurrence, and hence refuses to consider the argument. There must be an error somewhere, and thus the case is disposed of.

"Now we agree with Mr. Wakeman on the main

point. We, too, believe that there must be an error somewhere; but we think it equally certain that there must be a truth in a theory which, in spite of its crudity, exercises an enormous influence over multitudes of people, among whom we encounter men of business sense like Dr. Funk, and scholars such as Hyslop and James. There is a deep-seated natural longing for immortality, and we believe that although untenable in the shape in which it is commonly held, it is based upon fact. There is an immortality of personal character — different though it may be from the popular conception.

"Professor Haeckel's argument that there is no immortality is wrong and can easily be refuted. He declares that soul is a function of the brain, accordingly the soul is lost with the decomposition of the body.

"Now, it is true that the soul is our thinking, feeling and willing. But we must bear in mind that the soul is not the brain, but the purpose we pursue in life and the meaning which our thoughts possess, both being represented in certain forms of brain operation. There is no thinking without brain, but the brain is only the material condition in which thinking is realised. The thoughts themselves are not material.

"Let us use the analogy of a book. The book

itself, or rather the soul of the book, consists of ideas which are expressed in the printed words. Ideas cannot be communicated without some sensory means, and a material of some kind is needed as a substratum to render them somehow actual and to convey them. We can burn a book, but we cannot burn the ideas expressed in it. If a poet writes a poem on a sheet of paper the writing may become illegible, but the poem need not be lost; it can be copied and it remains the self-same poem.

"The same is true of the soul of man. Soul is the meaning and purpose of some living substance. It is not the substance, but that unsubstantial something which gives character to it, and anyone who declares that it is non-existent because it is purely formal and relational, and not material, would be driven to the paradoxical conclusion that the non-existent is more important in the material world than all the innumerable concrete material objects. The essential part of our own being is not the material aspect of our cerebral activity, but the contents of our thought, the purpose of our will, the leading motive of our sentiments, which factors in their bodily actualisation are, of course, always of a definite structure.

"Now Professor Haeckel will not dispute this point, but he insists that this cerebral structure which is the physical aspect of the soul will be

destroyed, and being destroyed the soul is lost and gone forever. But we claim the same kind of a brain constitutes the same kind of a soul, and that the reappearance of the same form of brain functions denotes the rebirth of the same soul. Professor Haeckel's arguments would be correct if identity of soul depended upon an identity of the bodily elements, but that is not so.

"We ought to grant that we are dying at every minute and that a new soul is being born in place of the other, for our cerebral substance is decomposed in the very act of thinking and the particles that are now functioning are at once changed into waste matter and are discarded from our system. In a certain sense it is quite correct to say that life is a constant dying — media in vita nos in morte sumus; but in another sense, and with no less truth, we can also say, 'There is no death; what seems so is transition.'

"It is well known that all the atoms of which our bodies are composed will change in the average within seven years. If the material elements, and not the form in which they are grouped, be the essential part of our existence, we ought to consider ourselves new personalities as soon as the last atom of our former existence has passed away. The transition is slow and almost imperceptible, but it takes place none the less, and that after all we recognise our identity throughout all these changes is the best evidence that the material portion of our being is of secondary consideration.

"Birth and death are the limits of individual existences, but we know perfectly well that we have not risen from nothingness and in the same way that we originated from prior conditions and are the continuation of former soul-life — so we are not annihilated in death and shall continue in the life of the generations to come.

"Neither is birth an absolute beginning nor death an absolute finality. They are the limits of a series the character and form of which is determined by former lives, and our life is again determining the life of the future. Every individual is a link in the great chain of the whole life of mankind. The life of the individual is formed and in its turn is forming again, so as to produce a continuity in which the old forms of life are preserved, being modified only by receiving new additions and being enriched with further details. Thus the soul of Christ is a living presence in all Christian souls, and Christ's promise is literally fulfilled when He says: 'And lo, I am with you alway, even unto the end of the world.' But in the same sense a father and a mother live on in their children, a teacher in his pupils, each one in the memory of his friends, martyrs and heroes in

their cause, etc. And this immortality is not an illusion, nor a mere phrase, but a living power exercising a decisive influence upon the actions of mankind.

"If Professor Haeckel were right, if the dissolution of the body ended all, constituting death a finality, we would not care what might occur when we are gone. The truth is that people are not indifferent to what will happen after their death. According to their different characters they endeavour to perpetuate their souls — and in this they succeed. Whatever a man does lives after him according to the nature of his deeds, and these deeds, the traces which they produce, the memories which they leave, the effects in which they are perpetuated, are nothing foreign to him, but in them dwells the quintessence of his soul. It is he himself.

"Just as an inventor who has built up a factory to actualise his invention is a living presence in every department of the plant, although bodily he may be absent, so the soul of man remains an efficient factor in life, although he may be overtaken by death and rest from his labours.

"Now, we grant Mr. Wakeman that from our standpoint a communication of a spirit through a medium in the way described by Mr. Funk should be considered an impossibility, but far from ridiculing Mr. Funk's attempted investigation I feel grateful to him for having ventured into the desert of vain speculations — only to find out the uselessness of his labours. He may not see the result himself as yet, but others do; and it is certainly necessary that all avenues of advance should be reconnoitred, even those which a sound scientific prevision condemns as hopeless. Those who undertake this thankless task are naturally enthusiasts and believers in the improbable. Their work is certainly not useless, for they call attention to the one-sidedness of the opposite view, and certainly deserve credit for the apagogic proof of an untenable position.

"Mr. Funk's hope may prove an illusion, but Mr. Wakeman will pardon us for saying that his venture of establishing a proof of immortality albeit of a counterfeit soul — should not be branded as a 'joke.' I myself made investigations along the lines of the Society for Psychical Research in what now appears to me an immature period of my life; but though I have surrendered the expectation of finding anything in that waste and sterile field, I deem it wise from time to time to study critically the work of others and see whether they have furnished the world with new facts that would necessitate a revision of our present views. Their views may be untenable from

the standpoint of science, yet our own view may also stand in need of emendation, or at least modification.

"As to Mr. Funk's book I can only say that I fail to be convinced by his arguments. I will grant that the proof would be fairly complete if there were not ample scope for doubt on many points where a cross-examination of the persons involved would throw new light upon the case. I feel convinced that though it will impress the believer favourably, it will never convert the scoffer; and whether the impartial reader standing between the two opposite positions will be affected, remains to be seen.

"I have learned from the book to appreciate the power of the belief in immortality, prompting a business man to go out of his way and collect the minutiæ of so slender an evidence. This yearning for a personal immortality is as deep rooted as are the instincts of animals and I believe, as set forth above, it is well founded. Man feels that death does not end all, and so he expresses the truth of immortality in a mythical form, inventing the ideas of heaven and hell and representing the soul as a concrete being, built of some mysterious spiritual substance.

"Upon the whole it is even better that man should believe in a mythical immortality than that he should deny the truth of the myth itself, for the idea is not without importance and exercises a practical influence upon our actions and our general attitude in life. We conclude, therefore, with the question: Is it better and wiser, or, even merely more advisable, that a man should always act as though the end of life were an absolute finality, or, on the contrary, should he so act as constantly to consider the part which his life and all the results of his life will play in the world when he is gone? I know that Professor Haeckel himself cares very much for the after-effects of his life.

"The period after death is certainly longer, as Antigone says, than the brief span of our earthly career.

"' For longer time, methinks, have I to please The dwellers in that world than those in this.'

And yet the mere duration is less important than the dynamical aspect of our soul-life after death. There is reason enough to say that if the idea of immortality deserves any consideration, it should furnish the ultimate tribunal before which all questions of importance should reach their final decision. Indeed, I can give no better rule for testing the correctness of moral actions than that a man in doubtful cases should ask himself: 'How

would you wish to have acted if your life were completed and you had passed away from the world below?' Anyone who is influenced by such a thought believes in fact in the immortality of the soul, though in his words he may flatly deny and ridicule it."

To these articles I replied in *The Open Court* for November, 1905, as follows:

THE IMMORTALITY OF THE SOUL¹ BY HEREWARD CARRINGTON.

"The attitude of mind assumed by Mr. Wakeman in his criticism of Dr. Funk's book, *The Widow's Mite*, is quite understandable, very human, and — from one point of view — thoroughly justifiable. Mr. Wakeman's attitude may be taken, I believe, as fairly representing the average scientific mind of to-day; that of Dr. Carus as a typical scientific-philosophical mind. I shall devote a few words, first, to a consideration of the remarks of each of these gentlemen, before stating my main contention — which is, namely, that the majority of *The Open Court* readers do not look at psychical research phenomena in the proper

¹ A brief criticism of the articles on this subject by Thaddeus B. Wakeman and the Editor of *The Open Court* in the number for June, 1905.

spirit, or study them from the particular point of view of the psychical researcher.

"Mr. Wakeman's main contention is, of course, that the majority (not all, but the majority) of scientific men, with the great Professor Haeckel at their head, have pronounced against the possibility of personal immortality; or of the existence of any such thing as 'spirit' or 'soul,' separable from its material encasement. I quite understand and appreciate the strength and the character of the evidence upon which Mr. Wakeman relies for his dogmatic assertions - evidence undoubtedly strong, positive, abundant, and lending a very strong impetus to the materialistic cause. It is true that there is another way of viewing these newer results of science — a method of interpreting them which tells, not in favour of materialism, but just the reverse; and it is also true that there are many weighty philosophic and metaphysical objections to the doctrine of materialism (meaning by this any system which excludes 'spirit' as a separate essence or entity); but on these I shall not dwell here. In the first place, this is not the time or place for such a discussion; and, in the second place, I am not at all sure myself that these objections should carry weight, or even enter at all, into a scientific discussion. Science deals with facts, and it is the fact of personal immortality that we must now consider from that particular scientific or critical attitude.

"I can quite appreciate the repugnance Mr. Wakeman feels in discussing any such thing as 'spirit'— I have experienced just such feelings myself and fully understand them. Let us, then, eliminate 'spirit' from our discussion and use the expression 'persistence of personal consciousness.' Having thus eliminated the objectionable term, perhaps we may arrive at a basis for discussion.

"The great point is, of course, that consciousness is indubitably bound up, in some way, with brain function; and the scientific man asserts that thought — and so consciousness — is in some manner a product of this functioning, or, at least, so inseparably bound up with it that any existence apart from such functioning is unthinkable and altogether unwarranted. He asserts that thought is but one aspect of the nervous system's functioning, and that when that functioning ceases, there is and can be, consequently, no more thought or consciousness. The conclusion is obvious, therefore, it is claimed, that consciousness is obliterated at death, and, as Mr. Wakeman puts it, 'After the death of Mr. Beecher there was, therefore, no possible spirit, soul, or consciousness of him extant to bother or be bothered about his "widow's mite" or anything else."

"Now my claim is this: that in such reasoning the cart has, figuratively speaking, been placed before the horse; and that a wrong course of argument has been pursued. Instead of searching, impartially, for the facts in the case, an *á priori* denial of the possibility of such facts has been made — and, of course, if a fact is impossible it cannot exist! But how do we know that it is impossible? At the most we can only raise a presumption against its occurrence; and a dogmatic denial of its possibility has led science into great and preposterous blunders more than once. It is only necessary to recall such cases as the experiments of Galvani and, more recently, the questions of meteors, hypnotism, etc., to be assured of the accuracy of that statement. Of course, scientific reserve in the face of new and strange facts is always justifiable, but that is a different matter to flat *á priori* denial. But the point is that instead of searching for such facts as tend to prove man's immortality, the majority of scientists content themselves with declaring, without investigation, that such a condition is impossible --- quite forgetting the fact that logic shows us that it is impossible to prove a negative!

"The psychical researcher also realises the strength of the scientific *presumption* against a future life of any sort, but says, 'Nevertheless,

162 THE COMING SCIENCE

here are certain well-evidenced facts which seem to prove such survival. If I can obtain enough and definite enough facts and evidence of this character, then the presumption will be overthrown, because we have certain facts which definitely prove it to be incorrect.' In short, the only method from which any conclusive result can follow is that in which all presumption is laid aside and deliberate experiment entered upon. That is the attitude of the psychical researcher. As I wrote some years ago, apropos of this very point, 'Obviously, the only way to decide this question is, not to speculate \dot{a} priori upon the possibility of spirit existence and reason from that the possibility of its return, but to test and establish the possibility of its return, from which we can argue (should that be established) that man has a spirit to return. Here, as before, it is merely a question of evidence.'

"Now, of the character, the variety, and the strength of this evidence I cannot, of course, speak here. I must refer the interested reader to the eighteen ¹ printed volumes of the *Proceedings* of the Society for Psychical Research (S. P. R.), or, if this is too much to ask, I would suggest that the reader peruse Professor Hyslop's very excellent book entitled *Science and a Future Life*. Pro-

¹ Eighteen at that time (1905).

fessor Hyslop handles this question in what is to my mind an ideal manner, and I cannot too strongly recommend it to the serious attention of the readers of *The Open Court*.

"To turn to the article by Dr. Carus. I am not quite sure that I fully understand his position in the matter. I take it to be (but I stand open to correction) that all *personal* or individual immortality is denied, but that the impression or imprint our life and personality has made upon the human race — or rather those of the race with whom we came into contact — constitutes the after-effects, or immortality, of which Dr. Carus speaks. Of course, no one would deny that kind of immortality in any case, but I venture to suggest that — for the individual concerned such an immortality practically amounts to annihilation. Immortality without individuality is no immortality at all. I cannot now go into any detailed discussion of Dr. Carus' attitude, but I can only say that it does not at all appeal to me. Either the individual exists as such, or he does not. If not, it is practically annihilation so far as he is concerned. With this I leave that branch of the discussion, and will add a few final words as to the interrelation of brain and mind and the inferences that are drawn from the "admitted fact" of the correlation of mental

states and cerebral changes. For every thought there is a corresponding change in the brain-substance — from which the conclusion is drawn that 'when there is no more brain there can be no more thought or consciousness.' But does that follow? Because the two facts are always coincidental, does it follow that the brain-change produced the thought? By no means! We might urge, on the contrary, that the brain-change was merely the *result* of such thought; or that it was merely coincidental in time, without the one affecting the other, or that both are but aspects of something else. This fact of functional dependence has been looked at from one standpoint only. As Prof. William James remarked in his Human *Immortality*, 'it would appear that the supposed impossibility of its (the soul's) continuing comes from too superficial a look at the admitted fact of functional dependence. The moment we inquire more closely into the notion of functional dependence, and ask ourselves, for example, how many kinds of functional dependence there may be, we immediately perceive that there is one kind, at least, that does not exclude a life hereafter at all. The fatal conclusion of the physiologist flows from his assuming off-hand another kind of functional dependence and treating it as the only imaginable kind.' But this is altogether unwar-

ranted and unjustifiable. I have elaborated a theory of consciousness, and of its relation to brain function, in my article on 'The Origin and Nature of Consciousness,' which accepts the fact of dependence, but endeavours to account for it in such a manner as would leave personality quite possible and immortality an open question - one that could *then* be determined by direct experiment. Mr. Wakeman must not misunderstand me. I am not arguing that the soul does exist, but merely that it is possible for it to exist; and this being the case, we should endeavour directly to experiment in those directions which hold out some hope of its proof as existent. Personally I do not particularly care whether the soul lives after the death of the body or not. To me, as I have repeatedly stated, it is merely a question of evidence — of verifiable fact. But I do object to the attitude of men who assert off-hand and *á priori* that such an existence is impossible, because I do not think that such a conclusion is either justified or warranted by the results of modern science, especially in the face of evidence now accumulated by the Psychical Research Society - of which I am an unworthy member."

¹ The Metaphysical Magazine, April-June, 1905, pp. 42-56.

EDITOR'S REPLY¹

"Though I do not characterise my position as materialism, I feel convinced that Mr. Carrington would be obliged to call me a materialist according to his classification. According to my nomenclature, materialism² is that view which attempts to explain the world from matter and motion, and omits the most essential characteristic of existence — the significance and reality of purely formal relations. But in spite of my objection to materialism as a philosophical principle, I would not hesitate to deny the ghost existence of the soul which means that spirits could lead an independent life without being somehow incarnated into bodily actuality. I recognise the spiritual and I claim that it alone possesses significance, while the material part of the universe and even energy amount to nothing unless guided by the will of spiritual purpose. Further I wish to state that Mr. Carrington has probably understood my position correctly in appreciating the significance of man's after-life, the reality of which, as he says, no one would deny. But he does not grasp the implications of this view, which might as well be

¹ Appearing in the same issue.— H. C.

² For details of my criticism as to the errors of the materialism of Carl Voigt, see *Fundamental Problems*, pp. 350-54.

stated in a negative form, declaring that the individual as a separate entity, a kind of thing-in-itself, after the Vedantist *atman*, does not exist at all, so it could not survive. The first question to be solved is not whether or not the personality of man will live again, but what is the personality of man, how does it originate, and whence does it come? The solution of this will naturally answer the other question, Whither does it fare? I believe I have treated the subject with sufficient plainness in my little book *Whence and Whither*.

"The negative aspect which denies that personality is a thing-in-itself is misleading in so far as it seems to deny the reality of personality. If our soul is not a thing-in-itself it is still a fact of real life, and though that congregation of ideas, impulses, sentiments, and purposes which constitutes myself at the present moment will be broken up in death, it will nevertheless continue to constitute a factor in the world of living and aspiring mankind, and it will continue to be accompanied by the consciousness of living generations just as much as my ideas are conscious in my own body. We shall be preserved entire and nothing will be lost in death of the essential features of our personality.

"This view may be unsatisfactory to many people and may appear tantamount to extinction

from the standpoint of those who are under the illusion that their personality is in the present existence a thing-in-itself, and I would not deny that it is so; but I claim that kind nature has with seeming intention clothed the truth in the language of myth and has made mankind create different allegories as to the nature of immortality, making it more or less materialistic and sensuous. All the several religions present the truth of immortality in an artistic form which is only untrue if its symbolism is understood literally.¹

"In Mr. Carrington's conception my views would probably appear identical with those of Mr. Wakeman, for like him I do not believe that spirits of the departed can be consulted or communicated with in the style of mediumistic séances, but I object to Mr. Wakeman's position in so far as I must emphatically declare that man's life is not finished at his death, that the after-life constituted by the effects of life itself is a salient part of the present life and has to be constantly considered in all our actions. A consideration of the status of our being after we are gone should be the supreme motive of all our principles, and I

¹ When this discussion in The Open Court was in progress, I sent copies of all the magazines to Dr. Hodgson, and received from him a congratulatory letter, at the end of which he characteristically remarked: "What Dr. Carus calls 'immortality' has always amused me."

would not hesitate to say that it constitutes the basis of all true morality.

"I have followed with great interest the work of the Society for Psychical Research, but I must confess that I do not deem its results as assured as do many of its enthusiastic members. So far as I can see they are of a negative nature and disproportionately small to the enormous output of labour and expense."

As this criticism merely reiterated certain contentions which I deemed to be untenable — for the reasons above pointed out — I did not write a reply to it, since I did not think it necessitated one. Mr. Wakeman, however, returned to the attack, and in an article entitled "Human Immortalities, the Old and the New," he writes, in part, as follows:

SCIENCE AND SENTIMENT

"That article¹ on *The Widow's Mite* explained and applied the laws of science to the belief in the old immortality; *viz.*:

"1. The law of induction from the facts.

"2. The law of equivalent, continuous correlation.

¹ I. e., the first criticism to which Mr. Wakeman had just referred.

"3. The law of economy, or non-repetition in nature.

"It was shown that under these laws the old immortality was an absolute impossibility, unless their application could be avoided; and the prayer was that this (if possible) should be done at once, or that intelligent people should drop the old and turn to the new belief.

"This challenge has been before the public for years without even an attempt at an answer; and the default of the old belief had been taken thereupon, as far as such a thing could be. But

" 'Truth can never be confirmed enough, Though doubts did ever sleep.'

"It was very pleasing, therefore, to find in the last November number of *The Open Court* an article on 'Immortality' by Mr. Hereward Carrington of the Society for Psychical Research, in which he refers to my article as one of 'dogmatic assertions,' but tells us that in the *Metaphysical Magazine* for June last he had 'elaborated a theory of consciousness and of its relation to brain function which accepts the fact of dependence, but endeavours to account for it in such a manner as would leave personality quite possible and immortality an open question — one that could then be determined by direct experiment.' He says that he does 'not argue that the soul does exist, but merely that it is possible for it to exist.'

"When his article referred to appeared in that magazine the author, or someone, kindly sent it to me. Had it seemed to me to make the old immortality 'possible' I should so have announced without delay, but it did nothing of the kind.

"That article contains an account of the errors of scientists during the 'unknowable,' 'inconceivable,' and 'inexplicable' stages of their attempts to apply the correlative 'key law' of the universe. Their struggles there shown with 'principles,' 'forces,' 'energy,' 'thing-in-itself,' 'mindstuff,' 'spirits,' 'auras' and 'entities' generally, show us what not to get befogged with, and that a new and up-to-date edition of the late Prof. E. L. Youman's book on correlation (published by Appleton) is most desirable. Finally we reach the author's said 'theory ' in these words:

"' And, whereas it must be admitted that thought is, in one sense or another, a "function" of the brain, a very different statement of the case, from that generally held, may be made as follows: Instead of consciousness or thought being a function of the nervous tissue, the perception of a sensation through nervous tissue is a function of consciousness; that is to say, consciousness is independent of nervous tissue and uses nervous tissue to perceive with. In this sense our two brains — for we have two — would be the instruments of consciousness, but are not conscious themselves; just as our eyes are the instruments of sight, but do not themselves see; in the same way that a microscope is the instrument for magnifying minute atoms of matter, but cannot itself see and appreciate the magnification. Why? Because it has no consciousness of its own.'

"This 'theory' or hypothesis seems to me to be upset at the start and to be useless child's play; for it asserts that 'consciousness or thought' treating them as one — are 'independent,' '*instead* of being functions of the nervous tissue.' Yet at the start we read that 'it must be admitted that thought is, in one sense or another, a function of the brain.' But the brain is simply active nervous tissue. This proven and admitted fact contradicts and makes the proposed theory of an independent consciousness impossible.

"Next we are told that the consciousness would use 'the nervous tissue to perceive with.' But that is immaterial. Consciousness may do that and a thousand other things, and yet be the active process and function of the brain's nervous tissues. We are told that it would be 'just as our eyes are the instruments of sight, but do not themselves see.' But our sight is the seeing, is action, and not a thing, and has no eyes as 'instruments.' It is simply the activity of the nervous tissues of the eyes and brain when light vibrations reach them. Our consciousness comes about in a similar way, from those and from countless other vibrations. It is proven to be a correlating process a go and not a thing. It is rudimentary in some plants, higher in animals, and highest as the action of the human nervous tissues. That it survives each plant, animal, or human being after death as a ghost to be caught by the Society for Psychical Research is, as Professor Haeckel says, 'perfectly absurd'-that is, too absurd for anything but silence. It can only catch the ear of those who, like Columbus' crew, wish to slink back to some imaginary Eden, or heaven, instead of pressing forward to enjoy and people the new and real world."

To this I replied as follows:

ON THE IMPOSSIBILITY OF CONSCIOUS SURVIVAL¹ BY HEREWARD CARRINGTON

"I should like to reply to that part of Mr. Wakeman's article on 'Human Immortalities' that directly concerns my own position as stated in the November number of *The Open Court*.

"I take exception to no portion of Mr. Wake-*The Open Court*, April, 1906.

174 THE COMING SCIENCE

man's paper save that under the heading of 'Science and Sentiment,' and even here I can quite see and appreciate Mr. Wakeman's attitude of mind, which, as I before stated, is thoroughly understandable. I would point out, however, that Mr. Wakeman, in his reply, has in no wise answered my objection to his position, as stated in my own criticism, which was, namely: 'That the majority of *The Open Court* readers do not look at psychical research phenomena in the proper spirit, or study them from the particular point of view of the psychical researcher.'

"Mr. Wakeman confines his criticism of my previous article to my other article on 'The Origin and Nature of Consciousness,' to which I referred in my discussion, and has limited his criticism to my viewpoint, as expressed in that article, and to the theory I there maintained; and has not at all answered the primary objection I raised in The Open Court, as to the attitude of mind assumed by himself and others towards the possibility of immortality. Before discussing this at greater length, I should like to reply briefly to the criticism as raised by Mr. Wakeman of my theory of consciousness, and its relation to brain-function. In stating that 'it must be admitted that thought is in one sense or another a function of the brain,' I did not intend to imply, and in fact my whole article was against the assumption, that the thought was the *product* of the brain functioning, and I then pointed out that the functioning might be connected with states of consciousness in altogether another way than in the relation of producer and produced, and that it was at least conceivable that this functioning, accompanying all thought, is but coincidental with the thought ---not necessarily its producer, but conceivably the produced, the thought being the real causal agency; or that both are but aspects of something else, differing from both in its underlying reality, just as the tremors of a violin string are perceived by us as sound and as more or less visible vibrations of catgut, according to whether the ear or the eye interprets these vibrations; and, though they appear to us as dissimilar as possible, they are, it will be seen, but the differing aspects, or subjective methods of interpretation, by ourselves, of the same physical cause. Thus it may be that consciousness and brain functioning, though apparently so dissimilar, are ultimately one and the same thing at basis, the two being but the differing ways in which the same cause is interpreted. I admit that the brain is simply 'active nervous tissue;' but this simply states the condition of the physical brain at the time of thinking - upon which I would insist as much as Mr. Wakeman ---

for it is always in connection with this activity that thought is associated in this life; but it does not prove that the activity *produced* the thought, as I have before pointed out, but merely that it is coincidental with it. There is absolutely no proof that the nerve activity *produces* the consciousness; all we can ever say on this question is that they are coincidental in point of time.

"I do not agree with Mr. Wakeman in his statement that 'Sight is seeing, is action, and not a thing, and has no eyes as instruments; it is simply the activity of the nervous tissues of the eyes and brain when light vibrations reach them ' (p. 109). I must insist that the activity of the eyes has absolutely nothing to do with the sensation of consciousness; that is associated only with the activity of the sight-centre in the brain, and the eyes merely transmit to that centre certain vibrations, arousing in it a nervous activity with which the sense of sight is associated, but the eyes have nothing to do with the state of consciousness. They are merely transmitters or instruments, as I before insisted upon; and that the consciousness, the idea of seeing, is associated only with activity of the sight-centre in the brain is proved by the fact that in hallucinations, when this sight-centre is morbidly excited, the sensation of sight is experienced without vibrations reaching the sight-

centre through the eye, or without the rest of the brain being involved in the slightest degree. No matter how the sight-centre is aroused into activity, it is the activity with which thought is associated, and with the activity of that centre only. I must insist therefore, that eyes are 'instruments,' and not in any way associated with, or producers of, the conscious state known to us as the sensation of sight. I do not see, finally, how Mr. Wakeman can pronounce upon the "impossibility" of consciousness persisting apart from brain functions, unless he is omniscient, since all his arguments can ever lead to is the scientific improbability of such persistence, and this improbability will, in turn, rest not on philosophic speculation, but on the presence or absence of *facts* tending to show that such persistence of consciousness, apart from brain function, is a fact in nature.

"Mr. Wakeman says there is no such evidence; we psychical researchers say there is — not that the evidence is absolutely conclusive, but that it is suggestive, and at least renders such persistence of personality a probability; and this brings me to my last point, to which I have been working throughout this chapter. I do not think the question of survival or non-survival can ever be settled by philosophic or metaphysical speculation. Mr. Wakeman might produce arguments against its probability and I for it indefinitely, and we should probably both, in the end, be all the more solidly grounded in our own beliefs.

"I think that the only way this matter can ever be settled is by resolutely putting aside all philosophic and other preconceptions, and by turning to direct investigation of evidence and of facts that may be forthcoming — tending to show that such persistence of consciousness is an actual fact. Tf these facts are ever established, then all speculation is mere child's play and conclusively disproved by the evidence in the case.

"As a member of the Psychical Research Society I must insist upon this being the only attitude in which to approach this problem, and only by such direct evidence can this fact ever be definitely settled one way or the other."

CHAPTER VI

THE PROBLEMS OF HYPNOTISM

"JUST as chemistry arose from alchemy," says Dr. Bramwell,¹ " astronomy from astrology, and the therapeutics of to-day were formerly represented by disgusting compounds which were drawn from the living or dead human body, so hypnotism had its origin in mesmerism." Though mesmerism was characterised by many absurd pretensions, and did not receive the acceptance of the scientific world in its day, hypnotism now receives the serious attention of the great majority of scientific men,--- and, in fact, its phenomena have now gained general recognition, as facts. Just here, before discussion goes further, it may be as well to point out the distinction between mesmerism and hypnotism, and to make clear the subject we are to discuss. Mesmerism, as taught by Mesmer, from whom it received its name, stated that there was a kind of universal magnetism present in every living and dead body, not only in this earth, but even in the most distant stars in space throughout the universe, and that this magnetism might be collected

1 Hypnotism, p. 3.

179

and centered by one individual, to a large extent, and directed by him in a certain channel, for useful, curative purposes. Mesmer conceived this magnetism to be more or less fluidic or semi-material in its character, and in this respect it differs entirely from hypnotism, which is regarded as a purely psychological phenomenon by the majority of its investigators, and is in no way related to any physical influence or affluence at all. This is the principal mark of distinction between the two theories: one stands for the physical influence, the other for the purely psychical. The Abbé Faria, in 1814, first suggested that the phenomena observed in the mesmeric state were almost entirely subjective, i. e. psychological, and not due to physical cause; but his teachings were almost entirely lost sight of in the next thirty years, during which period the mesmeric school received a fresh impulse, owing to the magnificent work of Drs. Elliotson and Esdaile, who performed numerous operations during mesmeric trance, having produced, apparently, complete anæsthesia in their patients during such operations. The theory was not revived until Dr. Braid, of Manchester, England, published his famous book entitled Neurypnology, or the Rationale of Nervous Sleep. In this book was advanced, for the first time, the psychological theory of hypnotism in a thoroughly scientific manner, and though

180

Dr. Braid received, of course, the sneers and opposition of the medical profession at the time, it may be safely stated that the general acceptance of hypnotic phenomena dates from the publication of this work. Shortly after the attention of the scientific world had been drawn by the evidence to an investigation of hypnotic phenomena, however, it was again forcibly diverted by the discovery, at about this time, of chloroform and other anæsthetics, which placed in the hands of the physician a reliable means of inducing this condition, without attempting the uncertain methods that Braid advocated for inducing the anæsthetic state; and although hypnotism continued to be investigated by individuals and to receive its staunch supporters, especially in France and Germany, the interest in the subject practically died out in England, and was not revived until the announcement that Dr. Charcot of La Salpêtriere Hospital had become convinced that there were displayed, in hypnotic states, certain interesting nervous conditions which claimed the attention of the scientific and medical worlds, being undoubtedly genuine. This at once revived the interest, and the medical world was finally convinced that there was, in hypnotism, more than trickery and charlatanism, and its scientific investigation dates from that period. I cannot, in this chapter, do more than refer to the ex-

cellent work that has been done since that time by various continental workers, and especially by the 'Nancy School' (the greatest modern advocates of the theory of suggestion), but I shall confine myself to the work that has been done in England and America, largely by the Society for Psychical Research, through whose influence the phenomena of hypnotism were largely brought to public attention, and through whose careful and painstaking and most excellent work hypnotism received its just appreciation and ultimate acceptance. In this field the early experiments of Edmund Gurney and the brilliant theoretical papers of Frederic Myers deserve the utmost commendation and whole-hearted praise. The general phenomena of hypnotism are now so well understood that it is hardly necessary to refer to them in a paper of this character, since there is hardly a reader, probably, who has not some idea of their general nature as observed by the outsider, or who has not seen such experiments performed. Public entertainers delight in showing the extent of the influence they exert over their patients, inducing in them hallucinations and illusions, as well as causing them to perform all sorts of ridiculous antics which are absolutely valueless, except to illustrate to the public mind the extent of the power of hypnotism. Briefly, it may be said that the uses of hypnotism are two: med-

182

THE PROBLEMS OF HYPNOTISM 183

ical and psychological. In the former case anæsthesia may be induced, alleviating pain or causing the patient to become insensible to the surgeon's knife or the dentist's forceps; thus enabling many difficult surgical and dental operations to be performed without the shock that would otherwise accompany them — and this without the harmful after-effects that would follow the administration of any of the dangerous drugs that are used today. And further, we know that the hypnotic trance can, when supplemented by forceful suggestions, greatly benefit all nervous and functional diseases; while it is asserted in some quarters that organic diseases can also be cured in this manner -though the majority of medical men would doubtless take exception to this statement. The power for good in hypnotism has also been well illustrated in its ability to cure various habits and vices that have been contracted and found impossible to eradicate by any other system of treatment. Many such cases have been reported, and on these grounds alone hypnotism should receive the wide support and sympathy of the public, instead of the intolerant prejudice and scepticism with which it is now received.¹

¹ For cases that have been cured by this method of treatment, see *e. g., Hypnotism in Mental and Moral Culture,* by Dr. J. D. Quackenbos; *Hypnotism and Suggestion,* by Dr. Osgood Mason; *Psycho-Therapeutics,* by Dr. C. Lloyd-

But to the psychologist or psychical researcher the great interest is in its theoretical side; in its ability to lay bare to us the inner workings of the mind, and enable us to explore the most hidden depths of man's personality. We know from other, independent sources that there is in man a subconscious stratum of mind that Mr. Myers pleased to call the 'subliminal consciousness' (from sub, beneath, and limen, a threshold). This mind is operative in dreams, in somnambulism, in trance, in many cases of split personality and secondary consciousness, etc., and, though these states may not, of course, all originate in the same stratum of the subconscious mind, they are all or almost all reachable, apparently, by hypnotism; and in this manner we have an experimental means of reaching the various parts of our subconscious mind, and, at will, investigating the workings of that portion of our hidden 'selves.' This is a most important aspect of the problem. Of late there has been considerable discussion as to whether there is a continuous stream of consciousness active within ourselves, or whether these indications of the workings of a subconscious mind merely show that there are, at certain times, flashes of intelligence, ---- mere

Tuckey; Suggestive Therapeutics, by Dr. Bernheim; Hypnotism, by Albert Moll; Psychic Treatment of Nervous Disorders, by Paul Du Bois; etc.

sparks, as it were, thrown off from the wheel of consciousness in its ordinary revolutions. The facts which the Psychical Research Society have accumulated prove conclusively, it seems to me, that this stratum of consciousness is *continuous*, and is not a mere flash of intelligence. Gurney proved this in a very ingenious manner. He hypnotised a subject and suggested to him that, after he was awakened and again in his normal condition, his hand would write out, automatically on a piece of paper, the answers to certain mathematical problems that had been set his hypnotic self. After this patient had been aroused, therefore, and was again in his normal state, and conversing freely, and at the same time that he was discussing topics of general interest, his hand was writing out the answers to these mathematical problems — showing that some portion of his mind was still actively at work in figuring the problems that had been set just before he had been awakened; and in this manner it has been possible to 'tap,' as it were, the subliminal consciousness, and to ascertain that it is a continuous stream, and not merely a fragment of our mind which was enabled to operate only when our normal consciousness was suspended. Another very interesting proof is found in the fact that, in many cases of double consciousness (where the memory has suddenly been lost, and revived again only

after an interval of some months, during which period the person has been living an altogether different life - possessed, as it were, of another personality) memory of this state has been artificially evoked through hypnotism, and the patient has been enabled to remember all that transpired in his secondary state, and give an account of his actions, though the events that had happened in the interval were entirely unknown to, and unrecallable by, his ordinary consciousness. Mr. Myers' idea was that the hypnotic self was not a *different* self, but merely the more inclusive; it *includes* the consciousness which we know and which is operative every day within us --- which latter consciousness he regarded merely as a special section, so to speak, of our entire self - noted by us here more than any other portion or section for the reason that it is best adapted for the purposes of our every-day life. He regarded the subliminal self as possessing a far greater grasp of the mental and physical organism than our ordinary consciousness possesses; and this must naturally be so, since the latter is but a fragment of the former, according to him. This would seem to agree with the statement made by Dr. Bramwell.¹ "The difference between the hypnotised and the normal subject, it appears to me from a long series of observed facts, is not so much

¹ Proceedings S. P. R., Vol. XII, p. 237.

in conduct as in increased mental and physical powers."

When we come to the explanations of the na*ture* of hypnotism, we encounter two opposite schools, which I may call, for our present purposes, the physiological and the psychological. Dr. Charcot was the originator of the former school, believing that hypnosis signified a more or less morbid condition, observable only in the hysterical basing his theory upon the fact that in all the cases he had himself noted the patients had marked hysterical symptoms, and were more or less neurotic. This theory was completely refuted in the first place by Dr. Moll, who pointed out that all Charcot's subjects were hysterical, --- which obviously negatived any results he might obtain, and forever disposed of this theory. Further Dr. Liébeault found that soldiers (presumably not a hysterical class) made very excellent subjects; and Mr. Harry Vincent has recently found that the same is true of university graduates.

Dr. Heidenhain's physiological theory was disproved conclusively, it seems to me, by Gurney and Dr. Bramwell; while Dr. Ernest Hart's theory — of cerebral anæmia — carried with it its own innate disproof, for, as Prof. William James pointed out in his *Psychology*, decreased blood supply *follows*, and is not the *cause of*, decreased nervous activity; while the reverse is also true: namely, that increased blood supply is the result of and not the cause of *increased* nerve activity. I cannot, in this chapter, review the various psychological theories, interesting as this might prove to be, but I shall conclude by outlining briefly Mr. Myers' theory of hypnotism, and its relation to the subliminal consciousness.

First of all, it was pointed out that suggestion does not cover all the facts of the case, as is commonly supposed — since the success of suggestion depends, not on the suggestion itself, but on conditions inherent in the subject; that is, the operator is merely the *starter* of the phenomena observed, and not their real agent; the phenomena are in reality the result of the inner workings of the subject's *own* being.¹ The potentiality of hypnotic phenomena lie, therefore, in the subject and not in the operator; and this fact Mr. Myers, in his customary beautiful language, pointed out as follows:

"I regard sleep as an alternating phase of personality — distinguished from the waking phase by the shutting off of the supraliminal life of relation of external attention, and by the concentration of

¹Compare Occult Japan, p. 296: "In all cases the subject really hypnotises himself. The art of the operator simply consists in getting him, more or less unwittingly, to do this."

THE PROBLEMS OF HYPNOTISM 189

subliminal attention upon the profounder organic life. To sleep's concentrated inward attention I ascribe its unique recuperative power. . . . Trance is a further stage of sleep in the sense that it accomplishes more powerfully sleep's characteristic task; the subliminal plasticity is more marked, the subliminal control intenser; until hypnosis sometimes seems to be to sleep what sleep is to waking. But how, after all, is this fuller control . . . effected? How is the subliminal plasticity, this vis medicatrix natura — actually reached? On this question Dr. Bramwell has demonstrated, with the advantage of actual experience, what some of us foreshadowed long ago - I mean the absolute insufficiency at present of any purely physiological explanation. No such explanation, indeed, now survives with apparent vitality to be worth the trouble of killing anew. The main consensus of living hypnotists declares that hypnotic phenomena are due to suggestion almost or quite alone. We need not reject that dictum, but we must make it our task to try and find out what that word 'suggestion' can mean. One thing the word certainly cannot mean, if it is to have any explanatory value at all; and that is --- mere ordinary persuasiveness. Dr. Bramwell (to take his own instance) is not the first person who has advised the dipsomaniac not to drink. If he succeeds in reforming such a pa-

tient, it is because he has managed to touch, not his supraliminal reason, but his subliminal plasticity. He has set going some intelligent organic faculty in the man which has lain dormant until that moment, and which proves more effectual for healing than the man's conscious will. How, then, has he done this? He has either infused power, or he has merely invoked it. Either he has added power by some influence . . . or else, in some empirical way, not as yet understood, he has simply started a self-suggestion; has unlocked, as I say, some fountain of energy which was latent within the man's own being. . . . Beneath the threshold of waking consciousness there lies, not merely an unconscious complex of organic processes, but an intelligent vital control. To incorporate that profound control with our waking will is the great evolutionary end which hypnotism, by its group of empirical artifices, is beginning to help us to attain."

The illusion that hypnotism is harmful or can in any way weaken the mental or moral will of the subject, or can in any way render him a 'tool in the hands of an unscrupulous person' must be thoroughly disposed of and discredited. There is not one iota of evidence to show that such is, or ever has been, the case. "I have never seen," says Dr.

THE PROBLEMS OF HYPNOTISM 191

Bramwell,¹ " an unpleasant symptom even of the most trivial nature, follow the skilled induction of hypnosis."

¹ Proceedings S. P. R., Vol. XII, p. 209.

CHAPTER VII

THE PROBLEMS OF TELEPATHY

TF there is any one thing which the Society for Psychical Research can be accused of "trying to prove," it is most certainly Telepathy, since all its earlier work was bent in the direction of experimenting in thought-transference, and the larger part of the labours of the Society were devoted to conducting experiments in this field. Since that time it has been used freely as an explanatory hypothesis in the Society's work, and, in spite of repeated statements by the Society (as such) that it did not accept it as a proved fact, and especially that it held no theory as to its modus operandi, the public has appropriated this theory of telepathy, and speaks of it as though it were a proved fact, established beyond controversy; and further, as though it were a definitely established principle that the action of telepathy is vibratory. Now all this is unwarranted, inasmuch as, even granting that the early experiments proved the reality of something akin to thought-transference, no theory as to its actual nature has ever been forthcoming --none, at least, that has proved acceptable to the scientific world. Telepathy, in fact, is not, strictly

THE PROBLEMS OF TELEPATHY 193

speaking, an *explanation* of anything; when we use the term 'telepathy' we do not imply any direct explanation; it is merely a term used to express the fact that there is some causal connection between two similar states of consciousness, occurring at the same time, in different individuals and not attributable to coincidence or chance --- that is, all that telepathy does is to *state* the problem (that there is some connection between the two facts observed other than chance): it in no wise shows what the explanation of this connection is. Of course, we may build up theories as to the operation of telepathy, and doubtless every one of us has some vague idea as to its modus operandi, but I must insist upon the fact that no such theory has received scientific verification in any single case, and all the talk we hear about "thought vibrations," etc., is simply so much rubbish, put forward by men who do not understand the real scientific problems in the case, and who are using the term 'vibration' to build upon the credulity of the public, because it is a term that has some scientific meaning, and appears to give some faint clue as to the method by which telepathy might possibly operate; ¹ but there

¹ A typical instance of this kind is Stocker's book *Telepathy* and in the chapter on this subject in his *Sub-Consciousness*. The fact that we know, as yet, nothing whatever about the action of telepathy was most forcibly pointed out by Miss Johnson, *Journal* S. P. R., Vol. IX,

is no scientific evidence, as I have before stated, that telepathy actually *does* operate in this way (even granting that it exists), and in fact, I might point out that there are many weighty objections to this theory of vibratory action. If we were to pursue the analogy further than the first crude statement (that vibration is the method of operation in the case), we should find ourselves in hopeless difficulties, if not contradictions. Let us for a moment pursue this line of argument and see whither it would lead us. In a wireless message, let us say, there is a transmitter and a receiver, and the only connection between the two is a species of ether vibration. Granting that some portion of the brain of one person might act as a transmitter of telepathic messages, and that another portion of another's brain might act as a receiver for these (though we have as yet absolutely no physiological evidence of this fact - but perhaps this would not invalidate the argument), and granting, further, that the ether might be capable of carrying such infinitely fine vibrations from one brain to another, there is still the practical difficulty, pointed out by Mr. Snyder in his New Conceptions in Science, that, though we can, by the aid of delicate instru-

pp. 169-70, and by Dr. Hyslop in his Psychical Research and the Resurrection, pp. 305-31. It is only fair to myself to state, however, that this chapter was written several years ago, and before Dr. Hyslop's article had appeared.

194

ments, detect vibrations almost infinitely rapid and far beyond the range of our senses, yet these instruments cannot detect any vibrations in the case of Still I do not admit the entire validity of thought. this objection, since, as Mr. Hutchinson points out in his Dreams and Their Meanings (p. 194), the brain may be far more sensitive than any instrument ---- though the *senses* are not. The chief objection in my mind is that, in the case of the electrical message, vibration is a purely mechanical process, and in no wise carries intelligence with it; it is vibration pure and simple. Now in the case of a supposed telepathic message, thought flashed from one brain to another must be supposed to convey with it intelligence of some sort; for if it were a purely mechanical vibratory action, I ask, How is it that this would impress another brain in such an entirely different manner from all other vibrations as to create in that brain, not only a thought, but the precise kind of thought that originated in the brain of the agent? Granting that the vibrations are but symbols, and that they are interpreted by our brains as "things," the difficulty remains that, in all other cases, such vibrations, no matter what their intensity, convey to the brain the idea of external objects, or qualities of those objects, and do not convey to it the idea of mind or intelligence. How is it, therefore, that one particular species of

vibration, which, we must assume, would vary more or less with each individual, can convey with it the idea of thought, and that this vibration is associated with mind, and in fact is thought, while all other vibrations in the world are in no wise connected with intelligence, and do not appear to us to be so connected; and, further, how infinitely we should have to vary the degree and type of vibration which would have to correspond to all shades of thought and feeling and emotion! Sir William Crookes 1 strongly urged the possibility of this vibratory theory of telepathy, but Mr. Myers' objections to it² (to my mind) outweigh and render altogether untenable this idea of the vibratory action of telepathy; but on this point I would refer the reader to the book in question.

Let us now go back and review very briefly the kind of evidence that exists in favour of telepathy. There is first the experimental evidence, in which one person, generally called an "agent," endeavours to impress his thoughts upon another, generally called a "percipient." The percipient then either describes or writes the impression he receives, and if it coincides with the thought of the agent, there is fair evidence for the action of telepathy.

¹ Presidential address to the Society for Psychical Research, in 1897.

² Human Personality, Vol. I, pp. 245-6.

THE PROBLEMS OF TELEPATHY 197

Of course, before any such theory is established, there are many sources of error that must be eliminated. In the first place, we must ascertain, by mathematical calculations, that the results are more, and very much more, numerous than can be accounted for by chance, since it is necessary to establish, first of all, the fact that some law other than chance has been operative. After this has once been established, we must eliminate all ordinary chances of error, --- such as conscious and unconscious fraud, muscle reading, hyperæsthesia, and other such errors as the tendency of minds to run in the same channel,— allowing a great number of coincidences to take place, owing to the similar operations of two minds acting quite independently of one another, and in no way dependent upon the operation of telepathy. After allowing for all of these factors, and while taking sufficient precautions to insure the fact that the results were not due to any of the above-mentioned errors, or to numerous others that will doubtless occur to the reader, the Society for Psychical Research succeeded in obtaining results which are many hundreds and thousands of times more numerous than would have occurred if due only to chance; it was, therefore, almost inevitable that they should conclude that thought-transference was practically a proved fact.

But thought-transference does not depend entirely upon this experimental evidence, though to the scientific world it must, of course, depend very largely upon it. Telepathy is evidenced by facts of every-day life, and by a multitude of indications all pointing in the same direction and inexplicable on any other theory. Without the experimental evidence, we should certainly be unwarranted in *inventing* that theory to explain the spontaneous cases, but, granting that certain experimental evidence for this faculty exists, we can extend it to cover cases of spontaneous telepathy, and expect to find many analogies. The great work that the Society for Psychical Research has done is collecting cases of such spontaneous telepathic action; such cases being very largely the action of one mind upon another at a supreme mental crisis for example, the moment of death. In *Phantasms* of the Living alone were published some 702 such cases; and these have been supplemented by many thousands of cases since collected and printed in the Proceedings and the Journal of the S. P. R., and in very many other books upon the subject that have recently appeared. The most common evidence of this kind is that afforded by apparitions at the moment of death, when a figure of the dying person is frequently seen by the percipient, who is generally some friend or relative of the dying per-

THE PROBLEMS OF TELEPATHY 199

son and so, we might fairly assume, en rapport with him. There is also evidence for a supernormal - probably telepathic - action in the many cases of automatic writing, in impressions and intuitions, in haunted houses, in crystal-gazing, in the Piper case, and in many other mediumistic cases, as well as in many of the occurrences of daily life; and it might almost be assumed that telepathic action is almost constantly taking place, unknown to us, since it operates, apparently, in some portion of our unconscious mind and does not, except on very rare occasions, reach our ordinary waking consciousness. Of course, there is a tremendous difference between experimental thought-transference and spontaneous telepathy, for this very reason; experimental thought-transference is directed entirely by our conscious minds (though it is probable that our conscious minds merely convey to the subconscious self the message which the latter carries), --- but still there is a wide gulf between the experimental and spontaneous cases. So great, indeed, is this apparent difference that some persons have decided that they do not belong to the same class, and are not, in fact, subject to the same explanation at all, the law operative in experimental and in spontaneous telepathy being entirely different. While this difference is undoubtedly great, the difficulty is

lessened when we consider the fact that there are several discernible states, stages or degrees between the two, and we can almost follow the process step by step through the various "transitional" cases, as they have been called, from the experimental to the spontaneous type. Such cases, for example, are those in which the agent has willed an image or apparition of himself to appear to the percipient, and, though this was consciously initiated, the apparition did so appear at a time when the agent was in some unusual condition, ---- in sleep or hypnotic trance, etc. Here then we have a series of cases in which a figure is perceived, as in spontaneous cases - the agent consciously willing it to appear before passing into trance, as in experimental cases — while at the time of its actual appearance he was unconscious of the manifestation he was himself producing, as in spontaneous cases; and such cases as these form a bridge between the two groups or classes --- suggesting that the law of telepathy is equally applicable to both. Taking, then, this mass of experimental evidence, which the Society has accumulated in its Proceedings and Journals, and the tremendous number of cases of spontaneous telepathy, as well as the transitional cases quoted above, and such other cases as have been produced in dozens of other books, pamphlets, magazines and periodicals of all kinds, the evidence for telepathy becomes, it seems to me, almost overwhelming, especially in view of the fact that apparently telepathic phenomena crop up in spiritistic séances; while it explains many other supernormal phenomena which are hardly explicable by any other means — short of invoking some sort of spiritism.

Now if the fact of telepathy be a fact in nature, the problems opening before us in its investigation are of the most wonderful character, as well as of fascinating interest --- taking us down to the very fountain of our mental life — the very core of our being. As I have before stated, however, very little progress has been made toward an explanation of the phenomena, the word 'telepathy' simply implying a causal *nexus* and in no wise actually explaining the connection. The vibratory theory I have discussed briefly at the beginning of this chapter, and though it may ultimately prove correct, I am insisting upon the fact that we have at present no proof that it is the explanation, or that the vibratory theory can be used and said to be, in any sense, explanatory.

The theory has been advanced that all minds are included in some vast cosmic consciousness or 'world-soul'— to which all consciousnesses ultimately lead as do the spokes of a wheel to the hub — and consequently that there is a constant connec-

tion or interrelation of mind at one point, if we could but perceive such connection — it occurring, of course, in the subconscious part of our being and our conscious lives being but the offshoot of such larger consciousness. The theory does not, of course, state an impossibility, but the kind of scientific evidence that must be produced in order to prove it is almost inconceivable. We have been practically forced to discard the idea of any physical action of telepathy, in the ultimate analysis, when discussing this problem, and Mr. Myers' statement that telepathy indicates merely the fact that "life has the power of manifesting to life " is about all we can say on the problem by way of explanation. Granting that mind can in some manner manifest to mind, other than by material means, how can such manifestation be conceived? Does one consciousness stretch out, as it were, and grasp the thought of the other mind (the percipient being in reality, it will be perceived, the active factor in such transmission, the agent being merely the subject from whose mind the fact is grasped), or does the agent project the thought from his brain and impress the mind of the percipient with it, just as a bullet might be shot from a rifle, or light waves radiate from some centre? The first of these theories would be somewhat akin to true mind-reading, the other

thought-projection or transference, and if the latter theory be correct, is all thought directed into one single channel — at a target, as it were — or does it spread equally in all directions like all other vibratory radiations? It may be conceived that telepathy is a combination of the above two processes, it being a kind of mutual action, a projection on the part of one, and a mental reception or grasping on the part of the other. If this is the case, we must conceive the thought as met, as it were, in space, and in some way joined or seized upon by the percipient thought; and how can we conceive such seizing or such perception? Speculations such as these would, of course, lead us into regions of the deepest mystery, to the most profound metaphysical speculation; and we should find ourselves far removed from the domain of science and critical philosophy. As it is not the province of this chapter to deal with that aspect of the problem, I will leave the question of telepathy for the present as it stands — which is no more nor less than a statement of a scientific problem to be solved by scientific methods. What might follow, were it to become an accepted fact of science, and the deeply important considerations into which we should be led in consequence, would form a most interesting study, and is one which I hope to consider at some future time.

CHAPTER VIII

THE PROBLEMS OF SLEEP AND DREAMS

FOR some unknown reason, it seems to be con-sidered "superstitious" by the majority of persons to consider or discuss sleep and dreams at all. Why this should be so is indeed a mystery, seeing that we spend a third of our lives asleep, and that most of us dream continually. It may not be known to the average layreader that the problems of sleep and dreams are now receiving thorough and scientific attention from some of the best minds of our time, and that the psychology of dreams is at present admitted to be a legitimate study. This being so, it may prove of value and interest to us to look into the question for a few moments, and see how far the accepted theories of sleep and dreams cover the facts, even of normal dreams and the phenomena of sleep. We shall then be in a better position to appreciate how little is really known of the subject, and the great interest, scientifically, that supernormal dreams have in throwing light on the obscure physiological and psychological processes involved.

Innumerable are the theories of sleep! Until lately, very little was known of the real nature of

sleep, and indeed it may be said that all that we know now is purely phenomenal, and suggests mere classification rather than explanation in the strict sense of the term. We are beginning to know fairly well some of the physiological processes that take place during sleep, but of its psychological aspects we are still in the blankest ignorance. We know that the ordinary normal selfconsciousness is absent; but whether this is in some way withdrawn or is actually extinguished, as a candle flame, we do not know. Then, too, there is a great deal of 'consciousness' about the organism while asleep. Contrary to general beliefs, the body is not a mere aggregation of living matter during the hours of rest and sleep, but is, on the contrary, very actively conscious of stimuli from without, and even of what is transpiring in its immediate neighbourhood. This has frequently been demonstrated by means of artificial stimuli. The body of a sleeping man has been pricked, slapped, scorched, sounds made in the ear, scents held to the nostrils, etc., etc., and the results noted. It was almost invariably found that the dreams experienced by the sleeper were the result of the external stimuli - these being dramatised by the sleeping self and woven into a complex and dramatic whole. This clearly shows that there is some self or consciousness left, capa-

ble of responding to external stimuli, and hence sleep cannot be the deep, 'consciousless' thing that the majority suppose it to be. There is some consciousness still within and about the organism; and yet it is not *self*-consciousness. Here is evidently a deep mystery. There is present, at such times, a consciousness peculiar to itself, and which we might call 'dream-consciousness.' Close attention to the phenomena of sleep and dreams might reveal something of the nature of this dream-consciousness, its phenomena and extent; and this I propose to discuss, very briefly, in the present chapter. First of all, however, let us turn our attention to the bodily conditions that accompany sleep and see what these may be.

Some authors have suggested that sleep might be due to the excessive functioning of the thyroid gland, but this was disproved by the fact that animals, in whom this gland was removed or atrophied through disease, slept just as well as other animals. Then the theory was advanced that sleep was due to cerebral hyperæmia — an excessive supply of blood in the brain, this being the real cause of sleep. This idea was held for a number of years, but was ultimately shown to be quite untrue, and a reverse condition was proved to be present during sleep — cerebral *an*æmia, or lack of blood in the brain, being invariably present during all normal sleep. It was consequently asserted that this was the cause of sleep --- it being caused by the cerebral anæmia. But it was pointed out, by Prof. William James and others, that this fact of cerebral anæmia proved nothing, inasmuch as the lessened blood supply would necessarily follow, and would not precede, the oncoming of sleep. That is, the nerve functioning would invariably lessen first, and the lessened blood-supply would follow later. This being the case, it is obvious that the theory of cerebral anæmia explained nothing; it stated a condition (one condition) that accompanied sleep, but did not explain its cause. The cause of the lessened nerve-functioning was still to be sought.

Then came the innumerable chemical theories of sleep. It was held that certain poisons were formed within the system, as the results of the day's activities, and these poisons, acting upon the nerves of the brain, prevented their proper functioning; and this was consequently the real cause of sleep. This is a theory still held by many; but it does not explain many facts, it seems to me, and is not in accord with others. The fact that a mere effort of will can keep us awake would seem to refute this theory; and so do the facts of hypnotic suggestion and the psychological activities that take place during sleep,

- to say nothing of the supernormal powers apparently possessed by many during this period. Again, why is it that mere boredom or monotony will induce sleep — and this when the patient may have been up and awake only a short time? Again, it has never been explained why it is that bodily cleansing and eliminating measures would not remove sleepiness --- or the causes of sleepiness - far more than any mere process of quiescence. Sleep is not merely a negative condition, it must be remembered, but a positive process --- one in which the most remarkable vital and physiological adjustments take place. A moment's loss of consciousness will sometimes refresh and invigorate us more than hours of rest and mere lying down; it is a period of great recuperation, and to assert that this state is merely the result of poisons formed within the body is simply nonsense. If sleep were merely a process of eliminating poisons, it is hard to see how such wonderful regenerative and recuperative changes could take place; it would take us every night to eliminate the poisons of the previous day; we should never improve at all, but, like Alice through the lookingglass, it would take all our running to keep in the same place! For these and other reasons therefore, this theory cannot be maintained, and we must seek elsewhere for a true explanation of

208

sleep — which, I am convinced, will never be found in any purely materialistic scheme. Mr. Leadbeater, in his little book on *Dreams* has a very ingenious theory of sleep to offer, which might be summarised as follows:

" Clairvoyant observation bears abundant testimony to the fact that when a man falls into deep slumber the higher principles of the astral vehicle almost invariably withdraw from the body, and hover in its immediate neighbourhood. Indeed, it is the process of this withdrawal that we commonly call 'Going to sleep.'" If this could be established (or some very similar theory) it would account for many of the facts of sleep and dreams, and is at all events ingenious and worthy of investigation. This more mystical interpretation of sleep would not be in opposition to any of the more physiological interpretations of the phenomena either. For example, I hold that "sleep is that physiological condition of the organism in which the nervous system of the individual (in precisely the same manner as the electric storage battery) is being recharged from without, by the external, all-pervading cosmic energy, in which we are bathed, and in which we live and move and have our being." ¹ This would enable us at least to appreciate the fact that sleep is a far more com-

¹ Vitality, Fasting and Nutrition, p. 309.

plicated and mysterious process than it is universally thought to be; and so with this I pass on to a consideration of sleep's chief characteristic *dreams*.

"The student of psychology," says Dr. Hyslop, "has no perplexities with our ordinary dreams. He may not always be able to assign the exact cause for the matter of men's dreams, but he knows the general nature of the influences that determine their occurrence."¹ It is well that Dr. Hyslop used the guarded language he did, because, claiming as many do, that we know all about dreams and their causes, would be to claim a knowledge we do not possess. Take, for example, the common case of a dream, all the elements of which are past visual memories or experiences. Some of these are twenty years old, some ten days old, some barely an hour; and yet these are inextricably bound together and intermingled, with no space or time-relation between the incidents, but all --- old and new, false and true, vivid and indistinct — are blurred together in the dream by some law, or lack of law, that we cannot as yet fathom. Why should time and space be disregarded in our dreams? I venture to think that even this well-known and common fact is extremely suggestive - indicating that we are, in

¹ Enigmas of Psychical Research, p. 144.

our sleep, closely in touch with a world in which time and space are not — at least in any such sense as we know them; and this is greatly strengthened by the evidence which supernormal dreams afford.

Before passing on to these, however, let us first consider the psychology of certain dreams that nearly every person experiences at one time or another in his life. Mr. Horace G. Hutchinson has written a very interesting book on this subject, entitled *Dreams and Their Meanings*, and I propose to give a brief résumé of the book before passing on to consider supernormal dreams, as the subjects dealt with are highly interesting and important.

The first chapter in this book is devoted to "What Science Has to Say About Them" (dreams) and considers and summarises the various theories that have been put forward to account for normal dreams — conditions of blood supply, sensory stimulation, bodily conditions, etc.— as well as considering certain psychological questions of general interest. Of these, the most important are the length or duration of dreams, the comparative vividness, the influence of the daily life and thoughts upon the content of the dream, etc.— all of which has been pretty fully discussed elsewhere. One remark, however, calls for special

mention because of the important conclusion that can be drawn from the statement made. It is: "We cannot determine what they shall be about, by fixing our mind on any particular subject before we drop off to sleep, nor can we, after waking out of a pleasant dream, prolong it, by thinking of its incidents, when we again fall to sleep. I am well aware that there are exceptions to this rule - people who claim, and no doubt justly, to be able to influence in a great measure the course of their dreaming thoughts, but they are in a very small minority. . . ." This brings before our minds clearly the fact that here is a world of which we do not know the laws, and over which we have practically no control. We cannot tell what may or may not happen in that world, when once we enter it, nor can we control our thoughts in it, though we may be perfectly rational beings, and capable of willing to do so. Just in a similar manner it may be that, in the Piper case, e. g., the " controls " are alive and active, but when they come in contact with the "light," and more or less lose control of their faculty of thinking and willing voluntarily, many things are apt to occur over which they have no control, and for which they are not responsible. The point I wish to make is that we are not entitled to say what " spirits " should or should not do in the next life,

or when, how and what they ought to communicate, without knowing anything of that other life — its laws and possibilities and the amount of control the various spirits (granting that they exist) have over their own thoughts and actions. When communicating, they may be just as incapable of controlling their thoughts as we are our dreams.

The question of the remembrance of dreams is another question which Mr. Hutchinson has touched upon in an interesting manner, though all too briefly, considering the importance of the problem. Many authors consider it a sign of disease if we ever dream; others, on the contrary, assert that we constantly dream during sleep, and that no sleep is absolutely dreamless! That sleep which appears to be so is merely a sleep in which the dreams are not remembered. On this theory, we dream constantly, but only a few of them are remembered, on waking. To dream, then, is perfectly normal, and it might even be urged that dreamless sleep is abnormal. Is it then normal to dream or not? I myself have thought about this question much, and it has occurred to me that a possible solution of the problem is to be found in the combination of both theories; i. e., both are right and both are wrong, to a certain extent. It might be suggested that we do constantly dream during sleep, and that this is a normal process, the abnormal factor being its remembrance. Thus we should dream, but we should not (normally) remember these dreams. The abnormal event would be the remembrance — and this might be due to some sort of hyper-penetrability of the "psychical diaphragm," as Mr. Myers put it; the screen that usually exists, as a wall, between the conscious and subconscious lives. The abnormal penetrability of this is the diseased state or condition to be rectified.

I now come to what is the real kernel of the book. The author, Mr. Hutchinson, had found, some years before, that certain dreams had a tendency to occur far more frequently than others; and, further, that almost every person who dreams at all had experienced certain *types* of dreams at one time or another in his life, and he conceived the idea of collecting a large number of cases of just such dreams, with the object of finding out, if possible, their general form, their causes, variations, and general effects — in short to make a careful study of these particular dreams.

The dreams that were found to occur most frequently, and which were most carefully studied, were the following:

- 1. The falling dream.
- 2. The flying dream.

3. The dream of inadequate clothing.

4. The dream of not being able to get away from some beast, or injurious person or thing, that is pursuing.

5. The dream of being drawn irresistibly to some dangerous place.

6. The dream that some darling wish has been gratified.

7. The dream of being about to go on a journey, and being unable to get your things into your trunks, etc.

As the author argues, since these dreams are so frequent, there must be some uniformity of physical or mental conditions that would produce these dreams in all persons alike; *i. e.*, there must be some *law* at work. To find out what that law is, was the object of the author, and it must be acknowledged that if he had solved the problem, he would have added much to our knowledge of dreams and dream states.

Let us now consider some few of the cases that were sent the author, before attempting to consider their explanation or psychological significance. Take first the "falling dreams." It is commonly supposed, at least it has frequently been said, that, though many persons have dreamed that they were falling, none have ever dreamed that they arrived at the bottom of the fall — for "if they did, they would die." This would seem to bear out the Irishman's remark that "it was not the fall that hurt him, but the sudden stop at the bottom." However, there appears to be as little foundation for this current opinion as there is in the majority of such beliefs, for Mr. Hutchinson collected accounts of several cases in which the dreamer had reached the bottom of the fall, and even dreamed that he was smashed into little bits as the result, ---- but yet lived to tell the tale! This is very instructive. The ego, which in this case appears to have a kind of onlooker, "picked up the pieces and glued them together again."

Many interesting cases of flying dreams are given — these dreams being, for the most part, cases in which the dreamer thinks he is skimming along the ground in a horizontal position, with or without a swimming movement of the arms. Tο some, this sensation is like swimming, to some like skating, to some like gliding, to others like flying (proper), and in other cases it more nearly resembles the falling dream. In some cases the sensation is pleasant, in others distinctly unpleasant. But it would be impossible for me to give instances of all the dreams here, since that would take a book as big as the original. I can only refer my readers to the book itself, assuring

them that there is sufficient of interest in the book to warrant its perusal.

What are the causes of such dreams, which occur so frequently and to so great a diversity of people? It may be stated at once that the author did not succeed in tracing the causes of these dreams in most instances or in showing clearly the psychological laws that govern them. This was due partly to lack of the requisite material, and partly to the fact that not enough is yet known about dreams, their causes and psychological laws, to enable any such generalised explanation being made. What the author has done, therefore, is to collect the dreams, classify them, and then to offer a number of possible explanations, --- some original, some gathered from other sources, - and leave the reader to form his own conclusions in the matter. After all, perhaps this is the wisest course. Thus the book is disappointing in one sense, as showing us how little is really known about dreams and dream states, but very useful in another, for the reason that it clears away many of the prevailing erroneous beliefs connected with the subject, and anything that does this is to be commended.

Having said so much it but remains for me to summarise the theories that have been advanced by way of explanation of the various dreams, though it cannot be hoped that this portion of the subject will contain anything new or of great interest to the psychologist. To the average reader, however, some of the theories may be of interest, since theories of dreams are not so well known as they should be — I mean even normal dreams.

Take, then, the "falling dreams." These may be due to a number of causes. The common explanation is "indigestion"—this producing a pressure on the heart and consequent sending of blood to the brain in a jerk. But is this really any explanation at all? Why should this give us the sensation of falling from a great height, since we none of us know what that sensation is? It can readily be imagined that this would have the effect of waking the dreamer with a start, but why should it arouse the idea of falling? The explanation evidently does not explain. Can it be that we merely *imagine* ourselves falling (or flying as the case may be)? If it be contended that this is the explanation, how can we imagine a thing or a sensation we have never experienced, since we cannot possibly tell what it would be like? It may be pointed out, parenthetically, that these dreams completely disprove the assertion so frequently made that we cannot possibly dream about any thing or sensation which we have not expe-

rienced in our waking lives. As we have not fallen from great heights or flown, while awake, how are the dreams to be accounted for? One ingenious correspondent suggests that this sensation is a relic of our prehistoric days, and represents experiences and memories carried over from our "monkeyhood" state! I shall not do more than refer to the suggestion. The author rather inclines to the belief that the eyes or optic nerves play a great part in the explanation of such dreams. They are supposed to give us the sensation of things moving upward past us, and this would indirectly suggest the fact that we were falling. The author contends that these sensations are frequently experienced in waking life, and might be the basis of our dreams of falling, when asleep. For reasons it would take too long to specify here I can only say that this explanation does not appear to me to cover all the facts, or to explain many of the dreams in any complete manner.

The most rational explanation of such dreams is probably the following: By lying too long in one position, the blood supply on the lower surface of the body is cut off, producing a certain peripheral anæmia, with loss of sensation in these parts. This loss of sensation would be coupled with the feeling that there was no support beneath the body, and hence the idea that the body was falling through space. The imagination of the dreamer would supply the rest of the dream data, so long as the primary sensation was aroused.

There are, in addition to all the above dreams, many on record much more remarkable ---- dreams which convey to the dreamer information unknown to him until that moment - dreams apparently telepathic, clairvoyant, prophetic. A son appears to his mother, and announces to her that he has just been killed in a railroad accident; a dreamer sees with horror an accident befalling a near and dear friend of his; or sees an incident happening in the future — all of which turn out to be absolutely accurate. How are we to account for such dreams on the accepted laws of psychology and physiology? Do not such dreams rather suggest that we are, in sleep, in a world distinctly different from this one, where it is possible for us, occasionally at least, to see and hear that which it is impossible for us to see or hear in our normal, waking state? And how absurd the claim that all dreams are but the results of past states of consciousness, or past experience, in the face of such experiences and such dreams! There are many of them on record; so many that it would be unnecessary to argue the point here. The only remaining question that lies before us is, How

are such dreams to be explained? Why do they occur, and how?

The hint I have let fall in the preceding paragraph will answer these questions in a large part at least so far as they can be answered in the present state of our knowledge. Telepathy and clairvoyance and premonition operate in sleep and dreams as well or better than they do in the waking state; and, if spirits exist, there is great reason to suppose that their mental influences cause or initiate a large number of dreams that appear to us to be evidence of the faculties mentioned above, or even of ordinary dreams. These faculties exist, and they operate in sleep as they do in the waking state — in fact, we seem to have proof that they operate more perfectly and freely in the sleepstate than in the waking state. This is also a very suggestive point; for, if the materialistic theory of consciousness and its relation to brain activity be true, it should be that, the less the brain activity the less the consciousness, whereas we find that precisely the reverse of this is true; and that the nearer the brain is to a state of complete inactivity, the more intense and alive is that portion of consciousness which is active during the sleeping hours. Which, of course, suggests to us that if, or rather when, the brain ceases to function as it does at death — the same consciousness (the soul?) is most free and most active — at least as soon as it recovers from the shock and wrench of death.

Much has been written of the similarity of sleep and death, on the one hand, and the phenomena of trance and hibernation, on the other. That there are certain resemblances (notably the absence of consciousness) cannot be doubted, but I am convinced that the two states of sleep and trance differ radically; and that both of these differ from hibernation also. This is not the place to discuss these theories, which are of more interest to physiology than to psychology and psychic research. I shall, on the other hand, conclude this speculative chapter with some remarks upon a question that is of intense interest, but which has never been discussed in any detail, so far as I am aware, except by Dr. Hyslop, years ago, in the Journal of the English S. P. R. I refer to the subject of the consciousness of dying. The problem may be stated somewhat as follows:

From the materialistic point of view, it would appear to be practically impossible for anyone to have any distinct consciousness of dying. For, if materialism were true, death must be the extinction of consciousness. It would seem to be impossible, therefore, ever to be *conscious* of dying; that is, conscious that consciousness is being

222

extinguished. Therefore, if it be true that persons are conscious that they are dying, it would apparently contradict materialism.

Of course the difficulty is to prove the fact that the dying person is really conscious of the fact he is dying. We cannot ever prove this by any introspective process unless we die ourselves - and that would shut off all direct means of imparting the information to others in the future. We, therefore, have to depend upon inferences from observing dying persons. Dr. Hyslop founded his observations and opinions upon his father's case — who afterwards communicated through Mrs. Piper, and confirmed many of these inferences. It might be urged also, that we are frequently conscious of going to sleep, and again, that the dying person might simply infer that he is dying, and not be really conscious of it. All of which facts would make it hard to prove the fact under discussion.

If consciousness were suspended entirely in sleep (annihilated *pro tem*), it should be as impossible for anyone to be aware of the fact that he is going to sleep as of the fact that he is dying. But we know that this is frequently the case. It is not always the case, of course. Personally, I am rarely or never conscious of going to sleep, and Dr. Hyslop stated that he was never aware of it

But it will readily be seen that, even were either. this the case, it would tend to prove only the fact that sleep is a suspension of consciousness, and not an annihilation of it; and if persons are conscious of dying, it would tend to prove the same thing. Therefore, this fact also would tend to show that sleep is a time of the *withdrawal* of consciousness from the organism, and not of its extinction. And the argument that the dying person knows by inference, merely, that he is dying may be met in two ways, at least. In the first place, he cannot infer anything without self-consciousness; and the presence of self-consciousness would prove its existence and active operation. It could not, therefore, be extinct. The second reason is this. "Inference is usually, if not always, in normal life, connected with some previous experience which has had the meaning inferred in the new case. But as the subject has had no experience involving the connection of a sensation with death, it would appear remarkable that it should infer a fact which is interpreted as extinction which it has not had. A new experience of an extraordinary kind might, of course, suggest death as its explanation, though it might equally suggest mere wonder at its newness, as strange sensations often do. . . .

"That the explanation, in the consciousness of

the subject having the experience, takes the form of supposing the approach of death, might be suggested by the *á priori* conception of death as the departure of the soul from the body. . . . If we interpret sleep as the suspension of consciousness, as I think we must do, under any theory whatever, then it would be quite probable, even supposing the persistence of the subject after death, that this suspension would generally, if not always, take place at death, permanently of course, on the theory of materialism, but temporarily, at least, on the opposing theory. But there might be exceptions to this suspension at the moment of decease, if death is not extinction. There might be cases where the subject retains consciousness of the severance, similar to those experiences on record in which the person says that he has seemed to leave the body. It is simply a question of evidence, whether we can determine the possibilities of such a consciousness, or whether we find the facts either without significance or disproving the hypothesis. If we find phenomena, normal or abnormal, in the existence of the living and resembling what we might imagine to be at least an occasional phenomenon of the dying, we should give the problem the attention it deserves, and endeavour to ascertain whether the so-called consciousness of dying is

anything more than an inference, or like those apprehensions about death that are so often illusions."¹

Is death an "everlasting sleep," or is it a state of the most intense active self-consciousness? Time will show.

¹ Journal of the S. P. R., Vol. VIII, pp. 250-55.

CHAPTER IX

MODERN SPIRITUALISM: A BRIEF HISTORICAL RÉSUMÉ

NO attempt can here be made to trace in any detail the history of spiritualism through the various literatures of the nations, nor even to follow the modern history of the subject. Any attempt to do so would, of course, involve a treatise of several volumes, and to even touch upon it lightly would necessitate a ponderous essay. I shall therefore, in this chapter, confine myself to a brief outline of only the most important and significant features of the subject that have been recorded, and to touch upon those phenomena which have received international reputation and significance.

Spiritualistic phenomena have, of course, been recorded throughout all ages of the world's history. In the very earliest times we find traces and records of such occurrences, both biblical and in the traditions, mythology and religious beliefs of all countries, and there is no more interesting study than the collection and comparison of such records. The phenomena of witchcraft recorded throughout the middle ages, both in Europe and in America, and later the semi-mystical beliefs in 'magne-227 tism,' revived by Mesmer and his disciples, were, as Mr. Podmore clearly shows in his *Modern Spiritualism*, the two chief, connecting links between the mysticism of the middle ages and the modern psychic phenomena observed in the middle of the nineteenth century when modern spiritualism received a sudden and tremendous revival.

This "cult" originated, strictly speaking, in Hydesville, N. Y., when the Fox sisters suddenly developed the surprising faculty of producing and intelligently controlling knocks or rappings, and inducing such rappings to answer questions put to them. This certainly seemed to signify that some intelligence was behind these manifestations, and when questions were put, it was stated that an Italian peddler who had died and been buried below the basement of the house was the cause of such rappings,- his spirit being restless, and he returning to render his personality manifest in this manner. Active measures were at once taken. The floor of the basement was dug up, but no body was discovered, nor has any body been unearthed answering to the description until within the last year or two, when, it is stated, a body corresponding to the description given was discovered, which seems a most interesting confirmation of the original statement.

In these rappings originated modern spiritism.

They were of course received variously by the community at the time — some accepting them as genuine evidences of the spirit world, others asserting that they were due to fraud and trickery, and demanding an instant investigation by scientific men. Such investigation was, unfortunately, never forthcoming, and to this day the Fox sisters remain an "unknown quantity" in the history of Spiritualism.

It is true that a partial investigation was conducted by three doctors from Buffalo, N. Y., who examined the sisters and returned a rather unfavourable report, asserting that raps did not occur when strict conditions were observed, and that only when these were relaxed were the phenomena possible; but nothing was definitely proved, and these rappings have always remained open to question. As may be supposed, other mediums rapidly developed, raps occurring in the presence of male and female mediums throughout the country, and other phenomena appeared in rapid succession. Slate writing, materialisation, playing of musical instruments, the appearance of spirit hands and feet, "test" messages given, and various other phenomena observed, with the consequence that spiritism soon claimed its adherents by the thousand, and within a few years various books and pamphlets appeared, and several journals were founded

devoted entirely to these subjects, while mediums continued to multiply to a bewildering degree. Almost all of the newly developed mediums were those in whose presence physical phenomena were observed (as distinct from mental); and indeed, in the early stages of spiritism, we find few mediums who devoted their time solely to the mental side of the question. There were, however, a few notable exceptions; among these the famous Andrew Jackson Davis, Emma Harding Brittain, and a few other trance speakers in whose presence, if we remember rightly, no physical phenomena ever occurred: but with them died almost completely the exclusively mental phenomena so far as the more reputable mediums were concerned; and this state of affairs continued until the case of Mrs. Piper was brought to light, of which I shall speak presently.

Meanwhile, physical mediums had been multiplying ad nauseam. The most famous of these was doubtless Daniel Dunglas Home, whose reputation has remained undimmed for forty years, and which will now doubtless continue so throughout all time. This medium was one of the very few producing physical phenomena against whom no definite charge of fraud was ever brought — or, at least, sustained. Home's fame in America was, of course, great; but it was not until he made his trip to England and Germany, following in the

wake of Mrs. Hayden in the former country, and became a subject of investigation by Sir William Crookes, that his fame became really great. About the years 1865 to 1870 there was a great impetus in English thought towards spiritism, and at about that time Home visited England, giving séances in various parts of the country, and arousing tremendous excitement wherever he appeared, because of the extraordinary phenomena witnessed in his presence. So great was the excitement that there arose a clamour on the part of the more enlightened of the scientific world that the phenomena observed in this medium's presence should receive due consideration and investigation at the hands of competent observers; and when Sir William Crookes undertook to investigate this medium, solely in the interests of science, from a scientific standpoint, and by scientific means, the journals were unanimous in asserting that no better investigator could be found than the clear-headed, logical and sceptical Sir William Crookes. It was, in fact, a test case — the first medium of his time to be investigated by the most eminent scientist then living in England! What wonder that the scientific journals should rejoice because they considered that now the impostures of the infamous Home would be brought to life and exploded; and what wonder that the spiritists should rejoice since

they conceived that the phenomena observed through Home's mediumship would finally receive their just appreciation and be recorded as actual scientific facts, instead of the mere assertions of gullible laymen! And while these opinions were clashing, the moderate and even-minded world was awaiting the final verdict with interest.

For several years Sir William Crookes had the opportunity of studying Home more or less directly, and in 1872 he published in his Quarterly Journal of Science, of which he was then the editor, his first lengthy report, entitled "An Experimental Investigation of a New Force." In this article, which is one of the most intensely interesting that can be imagined, Sir William Crookes goes into great detail in explaining the precautions he took to guard against fraud, the apparatus used, the methods employed, and the results attained. These were entirely favourable to Home, and convinced Sir William Crookes that there was, operative through him, a force of some kind, which he provisionally termed " psychic," capable of moving material bodies without the direct contact of the medium's body, and achieving other results in the physical world. This famous essay was supplemented two years later by one that still more radically upset the scientific traditions of the age by recording, as facts, such phenomena as direct writ-

232

ing, materialisation, and other astonishing phenomena, which were published in an article entitled "Notes on an Inquiry into the Phenomena Called Spiritual." These articles brought upon Sir William Crookes' head, as might be imagined, the bitter criticism and hostility of the scientific world, who now realised that the very champion who, they had confidently hoped, would smash and expose the 'fraud of spiritualism,' had, as the result of his years of investigation, become a firm believer in practically all the phenomena recorded; and indeed it may be said, parenthetically that this is true of a very large number of investigators who have taken the pains to study the subject at first hand. Some of the phenomena recorded by Sir William Crookes and by others at the time were, indeed, almost incredible, and we can quite readily appreciate the hostility which the publication of such records entailed. The elongation of the medium's body, the possibility of Home handling red hot coals, etc., without injury to himself, and above all, the instances of levitation — in which the medium's body was, as it was asserted, lifted by some force (apparently counteracting that of gravity) and carried about the room, and even out of the window, at a distance of some 70 feet from the ground --- such phenomena certainly seemed incredible; and as yet their

234 THE COMING SCIENCE

acceptance remains purely a personal matter, each individual having to balance in his own mind the alternatives of rejecting the statements of trained scientific men, such as those whose names are given, or of accepting the phenomena as genu-The acceptance of either alternative seems ine. impossible. It has been suggested that there is, of course, another possible explanation which would not necessitate either of the alternatives named. This is, that the investigators were in some way hallucinated, and that their senses deceived them into thinking that events occurred which did not actually take place. But in many cases, this explanation would not hold good, as there was the material record left in the physical world of actual events that had transpired, and Sir William Crookes had, in many cases, invented apparatus for mechanically marking such movements as took place, having in mind this very objection, and wishing to forestall it by producing the material proofs given him by a mechanical instrument which could not, we must suppose, have been deceived.

I have dwelt thus at length upon the phenomena obtained through Home's mediumship and the experiments of Sir William Crookes for the reason that they are the most important experiments in the history of spiritism that have ever been conducted, and almost the only ones that have never been discredited by further investigations. In almost every other instance the physical phenomena have been ultimately shown to be frauds; but with the exception of Home and one or two other, later, cases, it may be said that the evidence for the physical phenomena of spiritism is practically nil. We accordingly leave the physical phenomena of spiritism and turn our attention to the more interesting and positive proofs of the doctrine afforded by mental manifestations.

As stated, the early history of spiritism affords us few instances of the kind, and it was not until Mrs. Piper began to receive the attention of the scientific world that such phenomena began to receive from scientists the attention they had always deserved. The first report on this case, which has now a world-wide reputation, appeared over the signature of Prof. William James of Harvard in 1886, being published in the Proceedings of the American Society for Psychical Research. For several years past Professor James had been investigating this medium, and when Dr. Hodgson arrived in this country some two years later, his attention was at once drawn to the importance of the investigation of this medium by Professor James, and he at once began an investigation of her powers.

235

It is not too much to say that the case of Mrs. Piper is the most important that the history of spiritism has as yet presented, and possibly ever will present, as affording evidence of life after death, and it is worth the centered and almost exclusive attention that has been given it for the past twenty years. Putting aside all the other phenomena of psychical research, the evidence for a future life may be fairly said to rest on this case of Mrs. Piper,-partly for the reason that it affords far better evidence than does any other case so far published, and partly because it has received the careful attention of a number of eminent scientists and other qualified investigators for a number of years past. A brief résumé of the case may, perhaps, be given as follows:

When Dr. Hodgson became convinced of the genuineness of Mrs. Piper's power (which, I may add, was only established after several years of detective work and the closest possible scrutiny and observation of the medium), she was taken to England by the English society and investigated there by Sir Oliver Lodge, Mr. F. W. H. Myers, Dr. Walter Leaf and others,— their reports being published in Vol. VI. *Proceedings* S. P. R. Some of these reports were favourable, others unfavourable, though almost unanimous in asserting that Mrs. Piper was genuine, so far as the trance

236

went — opinions differing as to the value of the communications received through her; and, indeed, the sittings themselves varied most remarkably. Dr. Hodgson's first report ¹ left the matter still undetermined, he stating that, while there were many evidences of discarnate intelligence, still there were many objections to it also, and he held his judgment in suspense pending further investigation. His second report was published six years later in 1898,² and in this report Dr. Hodgson came out, for the first time, as an advocate of the spiritistic theory, he asserting that it was the most rational explanation of the facts so far observed, and publishing, for the first time, a stenographic record of séances that certainly seemed to justify, if not to prove, his contention. Shortly afterward a brief Report was published ³ by Professor Newbold, --- this author also holding his judgment in suspense and offering no definite theory by way of explanation. Soon after this Professor Hyslop obtained his series of seventeen sittings, and published his Report, with great detail.⁴ Professor Hyslop considered, in the first part of his Report, the various theories that have been put forward, by way of explanation of this case,

¹ Proceedings S. P. R., Vol. VIII. ² Proceedings S. P. R., Vol. XIII. ³ Proceedings S. P. R., Vol. XIV. ⁴ Proceedings S. P. R., Vol. XVI.

and the difficulties and objections of each theory. He was himself, however, entirely in favour of the spiritistic explanation, having been converted to that belief, from materialism, through Mrs. Piper's trance-mediumship. Since that time no elaborate reports have appeared, though several criticisms and minor essays have been published, and the world at present awaits further evidence with intense interest.

I shall, in the next chapter, discuss the various theories that have been brought forward to explain the phenomena obtained through this remarkable Here it is only necessary to state that in medium. this case of Mrs. Piper is focussed and concentrated, one might say, the whole issue of spiritism so far as personal identity and proof of life after death is concerned; and the importance of the case cannot, consequently, be too strongly insisted upon.

CHAPTER X

THE CASE OF MRS. PIPER

MRS. PIPER first gained the attention of the public in 1886, when Prof. William James published a Report in the American *Proceedings* S. P. R., stating that, owing to his personal investigation, he was convinced that there was, in this case, *prima facie* evidence of supernormal faculty, and that fraud was apparently out of the question, owing to the precautions he had taken to exclude it. Various individuals were sent by Professor James to Mrs. Piper, who had sittings during three or four ensuing years, but no serious and systematic attempt at investigation was made until Dr. Hodgson arrived in this country in 1887, making Mrs. Piper's acquaintance about two weeks after his arrival in Boston.

"I had several sittings myself with Mrs. Piper," writes Dr. Hodgson, at this period, "at which much intimate knowledge, some of it personal, was shown, of deceased friends or relatives of mine; and I made appointments for sittings for at least fifty persons whom I believed to be strangers to Mrs. Piper, taking the utmost precautions to prevent her obtaining any information beforehand as to who the sitters were to be. The general result was the same as in my own case. Most of these persons were told facts through the trance-utterance which they felt sure could not have become known to Mrs. Piper by ordinary means. For several weeks, moreover, at the suggestion of one of the members, detectives were employed for the purpose of ascertaining whether there were any indications that Mrs. Piper or her husband, or other persons connected with her, tried to ascertain facts about possible sitters by the help of confederates, or other ordinary methods of inquiry, but not the smallest indication whatever of any such procedure was discovered. My own conclusion was that - after allowing the widest possible margin for information obtainable under the circumstances by ordinary means, for chance coincidence and remarkable guessing, aided by clues given consciously or unconsciously by the sitters, and helped out by supposed hyperæsthesia on the part of Mrs. Piper there remained a large residuum of knowledge displayed in her trance state which could not be accounted for except on the hypothesis that she had some supernormal power; and this conviction has been strengthened by later investigations."

As a further precaution against fraud, however, and in order to study the case more satisfactorily, Mrs. Piper was taken to England for experiment by a group of investigators, which comprised such men as Prof. Henry Sidgwick, of Cambridge University; Sir Oliver Lodge, F. W. H. Myers, Dr. Walter Leaf and others. Mrs. Piper arrived in England, November 1889, and was met at Liverpool by Sir Oliver Lodge. Throughout her stay in England she was under close observation during the entire time, being the guest of one or more of the above-mentioned men throughout this period and until her departure for America some three months later. At this period Dr. Hodgson again resumed his investigation, and the case remained under his personal observation from that date until his lamentable death in December, 1905.

Before I proceed further, let me make plain the class of phenomena that appear through Mrs. Piper's mediumship, as this is a point which is apparently much misunderstood. In the Piper case there are no materialisations, no slate writing, no rope tying, no dark séances, nothing of the kind that could in any way suggest conscious physical trickery. Mrs. Piper merely sits at a table and, while conversing, falls into a trance condition, in which the body, to all intents and purposes, *dies* for some few seconds,— consciousness being entirely obliterated,— and, indeed, her own consciousness does not return so long as the trance lasts. The head falls forward and is supported by cush-

ions on the table; her whole body becomes inanimate. Shortly after this, the right hand and arm seem to gain a consciousness of their own.¹ The fingers seize a pencil (presented by the sitter) and begin to write on a pad placed on the table in readiness - just as would be the case were the medium in her ordinary conscious state --- the whole séance, occurring, of course, in full daylight, and, so far as the writing is concerned, there is nothing unusual about it, to all appearances, and no proof whatever that it is not directed by Mrs. Piper's own consciousness; and whether or not there is any evidence for the supernormal would depend, therefore, not on the physical characteristics of the case, but on the actual content of the written message; that is, whether such a message contains any fact or piece of information, or knowledge, that is unknown to the sitter, or known only to the intelligence communicating that fact.

This is the kind of evidence that the Society has been for many years endeavouring to procure, and I wish just here to make clear what the problem is that confronts us in the Piper case. Mrs. Piper's

242

¹ A most interesting fact, in this connection, is the fol-lowing: Mr. Lowell found, in his study of the Japanese trance possession cases, that the hands and arms are the *first* and *last* parts to become 'possessed.' All students of psychic phenomena should read this book, as the similarities of the Japanese passes to the Divergence of the similarities of the Japanese possession cases to the Piper case are frequently very striking. (Occult Japan, pp. 179, 180, 352-79.)

hand is controlled by some intelligence, that intelligence claiming to be sometimes a deceased person (possibly the friend or relative of the sitter) and at other times an intermediary, who undertakes apparently to speak for such friend or relative. Whether or not the intelligence is what it claims to be is, of course, the problem to be solved, and of this we shall speak later. There is doubtless an intelligence or agent of some sort at work, and the question is: Is this intelligence what it claims to be,--that is, a discarnate spirit,--- or is it merely the result of the activity of Mrs. Piper's subconsciousness dramatically acting out the part and falsely passing itself off as the spirit it claims to be? That is the difficulty that is to be solved in this case. The trouble is that we can never get into closer contact with the intelligence communicating than is afforded by the automatic writing. Suppose for a moment that a relative had started, twelve or fifteen years ago, on an expedition to Alaska; and suppose that we one day received a telephone message, stating that the speaker was the relative in question, returned from his trip. Verification, in this case, could be readily obtained by meeting and recognising such a person. But suppose that such meeting and recognition were never possible, the only method of communication thenceforward being confined to telephone messages?

243

Now the problem would be: How can the intelligence at the other end of the wire prove that he is what he claims to be,-namely, your own relative, - and that he is not an impostor passing himself off as such for financial or other gain? What would be the method we should pursue in such a case? . We should probably say to him: "Well, how do I know that you are so-and-so? Can you produce any evidence to show that you are the person you claim to be?" And in order to prove his identity, such person would have to bring forward certain facts which were known only to himself and to the person receiving the message, as, if facts were given which a number of persons knew, it would be no test-evidence, as any one of those persons might have been communicating. Still better evidence would be afforded were the communicator to furnish some information that was *unknown*, even to the receiver of that message or to anyone other than the person communicating, such information afterwards being verified by letter or reference to written documents, etc. If the evidence in such cases was conclusive, there would be a very clear presumption that the intelligence giving the message was actually what it claimed to be, ---- namely, the relative in question,--- and that his own intelligence and none other was active at the other end of the line.

Now this is precisely the problem before us in the Piper case. The communications are, as stated, limited to the automatic writing, and in this manner only can we get in touch with the communicating intelligence, whatever it may be. Whether such intelligence is what it claims to be, therefore, must depend on evidence of this kind; and this is precisely the sort of evidence which the S. P. R. has been endeavouring to procure for a number of years past. Test cases of the kind have been made as follows: A person has written a letter which was sealed and sent to Dr. Hodgson for safe-keeping, the letter not to be opened until after the death of the person writing it, who was, consequently, the only person in the world who was in possession of the knowledge of the contents of that letter. Now when this person died and his soi-disant spirit claimed to communicate, if he was enabled to tell accurately the contents of this letter, there would be very good evidence that his intelligence was still alive and active. Such experiments have, however, as yet been limited in number and inconclusive in result, though there should be doubtless many interesting developments within the next few years, as the result of experiments of this kind, as the writers of the letters (of which Dr. Hodgson had a great number on hand) die off. For the present, evidence has been con-

fined to somewhat less strictly experimental methods, in which information has been given of a private character, and indeed a great part of the records in the Piper case could never be published owing to the fact that they are of such a private nature that the persons who receive the messages have refused to allow their publication. From a scientific standpoint this is most unfortunate, but quite understandable, and perhaps only natural. One very interesting point was that one spirit, calling himself George Pelham, recognised, out of hundreds of sitters, only those who were known to him in life and greeted each of these with the proper degree of familiarity; that is, he continued his relations with them on precisely the same footing as he would were he still alive; and this is a most interesting fact when we consider that, in all other cases, he did not claim any knowledge of the sitters, and had to be introduced to them, frequently, before the communications could begin. These shades of recognition are most interesting and form a very strong presumption in favour of the spiritistic hypothesis. One other strong reason for believing this theory to be correct is found in the fact that in many cases messages have been given through one medium and broken off while incomplete, and afterwards furnished through another medium, in a different part of the country, or even in a different

country. For example, in the case of the late F. W. H. Myers, a message was given through a private medium in England — a lady and a teacher in Cambridge University — and finished three days later through Mrs. Piper in Boston, the spirit coming back with the remark: "I am afraid I did not make myself clear three days ago with reference to so-and-so; what I meant was this . . ." and the message was completed in more intelligible form.

Now that the reader has a general idea of the character of the phenomena, and the problems that are to be solved, the question of explanatory theories must be discussed, without going into great detail. It may be stated that such explanatory theories are three: (1) Fraud; (2) Telepathy; and (3) Spirits. Of course fraud must first be eliminated before any other considerations are allowable. But I cannot go into the question at great length here because the theory has been practically disposed of for many years, in the minds of practically all men who have had any personal contact with Mrs. Piper, or who have even carefully studied the reports of the Society. That information is frequently obtained by personal inquiries and by the employment of paid detectives is well known; also that there is a system, or kind of "bureau of information," among paid mediums which allows them to exchange information obtained about sitters 1 - all this was well known and recognised by the Society, and allowances were made for all such possibilities. Detectives were employed at one time to watch Mrs. Piper, her correspondence was frequently intercepted, and sitters were introduced at the last moment, just before Mrs. Piper went into the trance, or, in some cases, even after she had gone into trance,- Mrs. Piper herself never having seen the sitter before, and the whole arrangement being made through Dr. Hodgson, without any knowledge on Mrs. Piper's part as to who the sitter was to be. Further, Mrs. Piper was, as stated, taken to England in 1889 and studied there for some months, largely to exclude the possibilities of fraud. For all of which reasons I must ask my reader to assume that fraud has been excluded in the case, and shall proceed to discuss the other two theories above mentioned.

The telepathic hypothesis assumes that the dramatic play of personality is explainable on the assumption that some subconscious part of Mrs. Piper's mind is acting out, as it were, the personality it claims to be,— being a case of secondary personality, which has received many confirmatory

¹ The Physical Phenomena of Spiritualism, by the present writer, pp. 312-18; also my Report on Lily Dale, Proceedings Amer. S. P. R., Vol. II, Part I, pp. 106-16.

proofs in the recent cases of split personality, secondary consciousness, etc., studied by medical and other scientific men. This would be the ready explanation and account for all the facts in the case, were it not that evidence is continually given which such personality could not be supposed to possess. Just here it is assumed that telepathy is operative, keeping such personality supplied with facts that have been obtained from the mind of the sitter, or from other minds in the world elsewhere, and offering these facts as though they were obtained from the intelligence in question, when they are, as a matter of fact, only such facts as are obtained telepathically from living minds. Such a theory would be hard to disprove, and, in fact, there are many indications that it is possible, some of which I myself pointed out in a criticism of Professor Hyslop's report.¹ Since this was published, I have totally changed my views on the Piper case, however, and would now no longer defend the view I there advanced.

The objections to the telepathic hypothesis have been summarised with great force by Professor Hyslop in his recent book, *Science and a Future Life*, and I might perhaps take the argument very largely from his book. I would but point out first that telepathy, of the kind necessary to explain

¹ Proceedings S. P. R., Vol. XVII, pp. 337-59.

250 THE COMING SCIENCE

this case, has never received acceptance by the scientific world - that is, we are using telepathy, as against spiritism, while telepathy in itself is no explanation at all, merely the name of a connection of some sort between two minds, which connection itself requires explanation (p. 193); and further that the scientific world has not accepted telepathy at all, so that we are using an unaccepted theory to explain certain facts. But Professor Hyslop goes on to argue that, even supposing that telepathy has been proved to be a fact, the only experimental evidence we have is limited strictly to conscious mental states, and in order to apply it to the Piper case, we should have to stretch this to cover unconscious mental states; and this, not only in the sitter, but in other minds, active elsewhere in the world,-and for this kind of telepathy we have no evidence whatever. Even granting the possibility of such telepathy, however, and that it is powerful enough to abstract from any consciousness anywhere in the world a certain fact and convey it, as it were, to Mrs. Piper's subconscious self, then, Professor Hyslop urges, such a power would be practically omnipotent, and telepathy should be enabled to obtain facts from the minds of practically any person in the world, - and not only trivial facts, but important and personal and detailed evidence,- and this is precisely what has not been obtained. On the

contrary, only personal, and, to the world at large, trivial incidents have been given, which is precisely what we should expect if spiritism were true, but precisely what we should not expect if this kind of telepathy were operative, which, we might suppose, would be enabled to obtain facts of any description, at any time. Thus the triviality of the messages, in the Piper case, argues, not against spiritism, but in favour of it, since we know that living consciousnesses do deal in trivialities almost entirely; and as Professor Hyslop experimentally proved previously, trivial messages are voluntarily chosen by individuals who attempt to prove their identity by means of telegraphic or other communications where personal contact and speech is impossible. Many other objections to the telepathic hypothesis might be advanced, but I cannot at this time attempt to mention them, merely referring the reader to Professor Hyslop's book before quoted, and to M. Sage's most readable book, Mrs. Piper and the Society for Psychical Research.

I shall, in conclusion, consider two other points of interest in connection with the Piper case; one deals with the character of the mistakes and confusions, the other with the triviality of the messages. This question of the mistakes and confusions is a large one, and I cannot do more than briefly refer to it. I might state, however, in this connection,

that although it is, in one sense, a great objection to the spiritistic hypothesis that such mistakes should occur, the communicator apparently giving wrong information on subjects well known to him in life, such mistakes are, on the other hand, a great argument in favour of spiritism, for the reason that in the average individual we find a consciousness that frequently lapses into moments of forgetfulness - and this of even most important things - things, too, which we think should be well remembered — and this in their ordinary life and under conditions and in the environment to which they are most used. Taking into account, therefore, the vastly greater difficulties that must be experienced in recollecting and communicating such past events through another's brain, and the lapses of memory that frequently happen in human beings, we can quite conceive that, even should a real spirit be communicating, as it is claimed, the difficulties would be such that frequent errors of memory would be made, and erroneous facts stated, on subjects that would be well known to the individual, were he still alive. The difficulty might be just as great as, e. g., controlling our dreams by voluntary effort, and we know that the individuals who can do that are few and far between,¹

¹ See p. 212.

Finally there is the objection as to the triviality of the messages, this being, to many minds, the most important objection to the Piper case. "If," they say, "the intelligences are really what they claim to be,--- that is, spirits,--- why do they not tell us something of real utility or permanent value, something that could be of some real use? Why do they not tell us some scientific facts, or leave us some ennobling teaching, or some statement that could be verified as other than contained in living minds, thus showing that there was some independent consciousness at work? The answers to this objection are manifold. In the first place, Professor Hyslop showed by direct experiment that even the most intelligent men, when directed to establish their identity by means of telegraphic communications, deliberately chose trivial, personal incidents, and did not select any important scientific facts or any message that would convey the idea that the intelligence communicating was above the average, though they were, in fact, university professors. The next answer is that we have no scientific knowledge, and, indeed, the presumption is all against the fact, that the moment we die we gain greatly enlarged spiritual insight and foresight; i. e., immediately upon our death. This is the great stumbling block, especially with those persons who are influenced by religious teaching.

They are still under the impression that the moment death occurs we gain almost unlimited knowledge, and that the stores of the world's wisdom are laid open to us! This is, I think, a very erroneous viewpoint. I can see no reason to suppose that simply because of a person's death that person should gain a larger mental grasp of things or be possessed of a wider knowledge than he possessed at the moment of his death. Such increase of knowledge can only come as the result of a gradual process of evolution, or the result of work, the same as in this life, and we have, I think, no proof at all of the fact that the communicating intelligence (even granting it to exist and to be the person it claims to be) could give us any further information than that person was enabled to give when alive; and even supposing that he were, such information would be absolutely valueless, for the reason that until proof exists of the *reality* of the communicating intelligence, such statements might, and doubtless would be taken as a mere fabrication of Mrs. Piper's subconscious self, and would have no scientific weight whatever. Volumes and volumes exist of statements made by spirits as to their existence, mode of life, work, etc., but such statements have never received the credence of the scientific world for the reason that we have no proof of the fact that such statements were made by the

intelligences who claimed to make them, or that they were other than workings of the subconscious self of the medium; so that in the Piper case, such statements have always been set aside, and the whole interest in it centered around the scientific problem of 'personal identity' or the persistence of individual consciousness. This brings me to a final reflection; it is this, which I quote from Professor Hyslop. It is in answer to those persons who refuse to accept the evidence in the Piper case for the reason that the sort of hereafter they portray is not a "desirable" one!

"If the facts," says Professor Hyslop,¹ " make the spiritistic theory the only rational supposition possible to explain them, it has to be accepted whether desirable or not. Our business as scientists is not with the desirability of the next life, but with the fact of it. We have to accept the life to come, if it be a fact, without any ability to escape it, and its degenerate nature would not affect the evidence for the fact of it. Its being a madhouse or an asylum for idiots would not weaken the evidence for its existence. . . The desirability or undesirability of a future existence has nothing to do with the scientific question as to whether it is a fact." With this reflection I shall close the present discussion, which might, of course, be continued

1 Science and a Future Life, p. 299.

indefinitely, taking up, in turn, all the difficulties and objections to each theory and applying them in detail to the records and the theories as advanced; but such considerations would require another chapter. I shall conclude by saying that the Piper case contains the most important and, in fact, the *only* scientific evidence that we at present possess in favour of a future life; and the importance of the case from this point of view is very great indeed; in fact, as I have elsewhere stated, it cannot be overestimated.

CHAPTER XI

ON THE INFLUENCE UPON THE COMMUNICATOR'S MIND OF OBJECTS PRESENTED TO THE MEDIUM

PROPOSE to lay before the reader, in this chapter, a few remarks upon a subject that has been very little discussed, from a theoretical standpoint, though the fact itself is hardly questioned by those who have made a careful and critical study of the evidence for supernormal phenomena in the Piper and other similar cases. I refer to the faculty (apparently possessed by the medium or the intelligences who purport to communicate through her) of coming into closer touch with the mental and spiritual life of the sitter, and of being better enabled to remember a number of forgotten facts simply because they are enabled to hold (through the medium's hand) certain material objects which they previously wore, or handled, and which the sitter had brought with him or her in order to "assist in clearing the communicator's mind." In both Dr. Hodgson's Report and that of Dr. Hyslop are to be found many references to this fact — the importance of some material object to act as a means of clearing the communicator's mind and insuring better and clearer com-

munications - though it was only after long years of experimenting with the trance that the real importance of having these objects began to dawn upon the experimenters. It was only natural that this comprehension should be slow in coming, when we know that so much fraud is frequently connected with this very factor - mediums asking to hold a letter against their foreheads, e. g., in order to catch a glance at its contents, and so on. So when objects were brought to the medium at first, it was only right that they should have been carefully wrapped up and concealed from the medium, though we now know that many of the results that might otherwise have been obtained were in all probability vitiated or ruined by the very precautions employed. Still, in the early stages of the investigation, and especially before the honesty of the medium was proved to the satisfaction of all, it was only natural that such precautions should be taken: and most unscientific would have been the procedure if they had not.

But now that the facts are all but universally recognised — at least among those who have made a careful study of the phenomena - the question arises: What is the explanation of the observed fact? If, e. g., a sitter should bring a lock of hair to a sitting and place it in the medium's hand when the person from whose head that lock

of hair had been cut, when alive, was communicating; and if the communications at once became clear and relevant, instead of confused and erroneous; if, again, a pen-knife or a piece of stone were placed in the hand with the same results, or with the result of inducing a sudden rush of supernormal information, what would be the modus operandi of this clearer and greatly facilitated communication? In what way have these objects assisted in the acquisition of the information imparted? That they must have assisted in some way is evident from the very fact that the communications did become clearer and more correct and precise. In what manner have they influenced or affected the medium or the communicator in order to bring about these unlooked-for results?

That is certainly a most baffling question, one that I shall not attempt to answer, of course, because its entirely correct solution will not, in all probability, be forthcoming for many years yet — until a far better comprehension and grasp of psychic phenomena be prevalent than *is* prevalent today. But, if only for the purpose of clearing away some popular misconceptions on this subject, and in order to stimulate reflection among members of the S. P. R. and others who think upon these questions, I may, perhaps, be permitted to offer the following tentative remarks.

It is generally conceived that the object carries with it some subtle physical influence or "aura" which, in some manner, influences the medium or the intelligence communicating through her.¹ This belief is the basis of all "psychometric" readings, of course, and is a very convenient one to hold, and can be made a very plausible one. So far back as 1885, Mrs. Henry Sidgwick offered a somewhat similar view — or rather hypothesis as one of four explanations of haunted houses, conceiving it possible that some such influence might cling to the atmosphere of a house --much as its physical atmosphere clings to it --and in some manner might influence the minds and senses of those who lived in such a house thenceforward, or at least for some considerable time, until the influence might be supposed to "wear off." Similarly, it might be that every object, worn by a person, or closely associated with him, physically, might in some manner be influenced by him or impregnated with his "psychic atmosphere," and so might be the means of bringing that person or influence to the medium to communicate: or assist him to communicate, while there,

¹ For the sake of clearness of expression, I shall speak, throughout, of the "communicators" as if they were real intelligences or personages. This is for the sake of convenience, merely, and must not be understood as carrying with it any adhesion to the unfinitely spiritistic view.

260

by bringing him in touch, as it were, pro tem, with old influences and associations. And this idea is still further supported by the fact that articles brought to the séance for the purpose of "holding" a communicator and rendering his communications more clear and intelligible are far more potent and influential if they have been previously wrapped up in oil or rubber cloth and carefully protected from all external influences the touches of, and handling by, another person particularly; if, indeed, such handling does not ruin the influence altogether. These facts, then, would seem to indicate that some such physical influence exists, in fact, and that it has, in some manner, the power ascribed to it.

Granting, then, for the sake of argument, that such an influence does exist, how are we to conceive it as stored in the object handled? how does it influence the medium? how the communicator? how recall incidents forgotten by him until that moment? and how facilitate communication? Such are some of the puzzling questions that arise as soon as we begin to put our theory to the test and see how far it assists us in clearing up the present difficulties.

Are we to conceive this influence, this emanation, this "aura," as in some sense magnetic or electrical? If so, then how are we to differentiate the magnetism or the electricity of one person from that of another; for magnetism and electricity are not supposed to be in any sense " personal " in their nature, but rather universal, and intimately associated with every particle of matter in the universe --- living and not-living. Evidently, there must be some means of differentiating the influence of one person from that of another, and this would render the influence "personal" and distinguish it from the ordinary magnetism or electricity, of which we are accustomed to speak. Is it, then, to be conceived as in some sense *vital* in character ---consisting in, or partaking of, the vital energy of the person to whom the article formerly belonged? Well, what is this vital energy? Has it ever been measured, ever detected by any of the delicate instruments which science has perfected --- instruments so delicate that they can measure the energy of light waves, or detect the heat of a candle at the distance of half a mile? Have such instruments ever detected the existence of any vital force or vital energy - semi-material, or semi-fluidic, in character? We know that they have not. It is true that the early mesmerists contended that such an influence actually existed, and produced many facts in support of their contention; but these facts have now all been accounted for by the laws of conscious and unconscious suggestion; and,

though I should be the last to contend that such an influence does not and cannot exist, the influence will never be proved by mesmeric experiments, but must have other, independent facts in its support if it desires to be accepted by the scientific world.

Granting, again, for the sake of argument, that such an influence or effluence does exist, in spite of the fact that it has never been detected, how are we to conceive it as stored within the object handled or worn? Is it merely contained within its structure, like water in a sponge; or does it become an actual part or property of the object, like gravitation? One cannot well conceive it to be the latter; and it seems to be definitely disproved by the fact that it can be lost or dissipated, for which reason the articles in question are wrapped up in oil or rubber cloth, and otherwise protected. If it is merely present within the article, again, as water is present in a sponge, how does it influence the medium and the communicator? Is the influence lost or dissipated by much handling, or does it remain forever in the object? Experimental evidence would seem to point to the former conclusion, though nothing definite can be said, as yet. The evidence afforded by the oil or rubber cloth might again be cited in support of the theory that it is lost through handling.

264 THE COMING SCIENCE

Still, granting that such a physical, or vital effluence or influence exists, how does the medium become aware of its existence? We should have to suppose it is by means of the sensory nerves, and of these, the nerves of *touch* are the ones involved, since all the other senses are more or less dormant or incapable of rendering assistance in the detection and recognition of such an influence. If, then, this influence were in some manner transmitted along the nerves of touch to the brain, and there associated with other impressions, we might begin to form some faint idea of the process involved were it not for certain difficulties, which the casual reader invariably overlooks. Among these are the following.

In order that the incoming nervous impulse or sensation may be distinguished from any other tactile sensation, it must possess some peculiarity distinctly its own, for otherwise it would be merely registered in the brain as is any other tactile sensation whatever, and would excite no especial psychic impression one way or the other. The sensation would be carried along the nerves to the brain, as is any other tactile sensation, and would not appear to be essentially distinct from these. But if the nervous impulse conveyed from the hand to the brain be along the medium's own nerves, we must surely conclude that this nervous impulse *is*

the medium's also; for otherwise we should have to assume that an altogether alien and foreign nerve-fluid of some sort was introduced into the nerve channel (inoculated, as it were), and that this impulse, travelling to the brain, influenced it in its own peculiar way. This imparted nervous impulse bearing the characteristics of the nervous system of the other person (the person deceased, on our present hypothesis) and belonging to that person's nervous system, we might conceive that it would act upon the medium's brain (as a tactile sensation) in a manner somewhat peculiar, and different from, the ordinary tactile sensations of the medium, and would excite the brain and nervous system in a different way. That is, the brain would, pro tem, function in a manner familiar to the communicator, but unfamiliar to the medium. Of course, this is all conjecture, pure and simple, and is based upon the supposition that some sort of nerve impulse is passed from the object itself into the nerves of the hands, and by them conveyed to the medium's brain — a fact for which we have no confirmatory evidence whatever. I am not saying that such might not be possible; for if we can conceive the nervous mechanism of the medium's body (as, on the "possession" theory, we are bound to conceive) usurped and controlled by a spirit, we can imagine or conceive many things. And cer-

266 THE COMING SCIENCE

tainly this theory is as rational as any other; none other accounting for the facts equally well. What we should have to conceive, then, on this theory, is that this peculiar and characteristic nervous impulse reached the medium's brain while still carrying with it its own peculiarities, and that it impressed that brain in its own peculiar way, and that this impression was recognised by the intelligence controlling the brain and utilising it for the time being — all of which, taken together, seems to me to be a pretty good strain upon one's credulity. We have the facts to account for, however, which are an equal strain upon our credulity and must be explained in one way or another, or the problem given up altogether.

The manner in which such objects might be supposed to influence the medium's brain is now clear, and we can conceive that the controlling intelligence, acting upon the brain and nervous mechanism of the medium, might be influenced by the peculiarly familiar functioning of a certain centre or set of centres, and so arouse in him the associations which were previously lacking, or enable him to recall certain facts, before forgotten. In this way communication would be facilitated to just that extent, and so render the communications clearer and more relevant to the occasion.

It is true there is another way of accounting

for the observed facts, or a very large portion of them. To this view very few of the objections formerly raised can be said to apply, because we are not led into any of the intricate speculations which the former and commonly held theory necessitated. In this case, we might conceive that the influence is purely psychological, and that the communicator merely remembers more facts connected with a certain person, place or thing by reason of his seeing the article in question. This would involve nothing more occult than a simple association of ideas, the sight of the object bringing up to the mind of the communicator a chain of thoughts until then latent, of memories long forgotten. This would dispose of the physical-influence theory and all the difficulties it presents, and is consequently much to be preferred, if it covers and explains all the facts. It is doubtful, however, if it does so. Thus, in those cases where an article is brought and placed upon the table or in the medium's hand, which the supposed control did not know when alive (and hence could not recognise and associate with anything), the explanation can hardly be said to apply. For this article, too, seems to greatly facilitate the communications and to better them (to say nothing of the well-attested phenomena of psychometry), and this would be far more easily explicable on the

physical-influence theory than on the mental-association theory. And this objection would also apply to those cases in which objects belonging to other persons were presented to the medium and the communications facilitated in like manner. Again, if the mental-association theory were the true one and sufficient to account for the facts, why should we have to wrap up the articles presented so carefully; for if physical influences had nothing to do with the article or the medium's impressions therefrom, it should make no difference to either medium or communicator whether the articles were exposed to the atmosphere and miscellaneous handling or not. Yet, so far as I have been enabled to learn, there is a decided difference - so great, in fact, as to altogether annul the effects of the experiment altogether. So that, while there are many points in favour of the mentalassociation theory, it has not everything its own way, as some persons think; and, indeed, it is doubtful if it really explains many of the facts in the case at all.

There is yet another objection to the mentalassociation theory which I might urge in this place. It is this: it would have to be assumed that the communicator could actually *see* the object presented, for otherwise the theory would not hold. If he had to depend upon touch alone, all the diffi-

268

culties above enumerated would at once present themselves for solution. No; he must see the object, as with the physical eye, in order to associate it with any scenes, events, or persons in his past life. Now, we have very little evidence that spirits can see our material world, as we see it, at all; the spirits themselves state this, on numerous occasions; their failure to procure information, read books, etc., is a further indication of this; and it is in fact admitted by all those who have closely studied and brought in reports upon the Piper case. Certainly they do not see when communicating, though they may possibly see, very dimly and indistinctly, at other times. This is a subject that will stand working out in greater detail, on another occasion; but as I cannot do so here, I leave that branch of the discussion, merely calling attention to the fact that all the objections formerly raised to this theory still apply: the communicator can only associate with other things an object which is familiar to him and which suggests such associations, and any unfamiliar object would never arouse these associations, and never could.

It may be contended that I have been too "materialistic" in my treatment of the problem, in the above discussion, and failed to take account sufficiently of the purely 'psychic' or 'spiritual' sense or discernment with which mediums and psychics are theoretically endowed. It may be contended that such material things as nerves and brain centres and sensory perceptions are not involved in the case at all, but that the knowledge is gained by some purely psychic or spiritual perception. I confess that I cannot see or even conceive how this can take place. If the object were a consciousness, then I could understand that such close association might well effect the results; but when the thing touched is an inanimate object, I confess that such an "explanation" does not really explain, when we come to apply it in detail. For the idea that the actual past thought of a person should be registered in the object in some way, as a thought, is absolutely incomprehensible to me; even preposterous. But it might be contended that the object is charged with a sort of vital magnetism by the person originally handling and wearing such object, and that this influence might afford a sort of vital-association with the sitter's thought, in some transcendental world. Let me illustrate what I mean a little more fully. It is contended by a certain school of mystics that every thought is registered upon "the Absolute" in somewhat the same way that a spoken word is registered upon a wax cylinder, and that it remains there forever; that it is possible to regain and re-read that thought, by suitable means, un-

der appropriate conditions. Such is the theory. Now if this be true (let us assume its truth for the sake of argument, pro tem), then it might be that every thought, thus registered, would bear on it the stamp or impress of the individual thinking it; it would "belong" to him or her and to none other. It would belong to him for the reason that, between him and the registered thought, there was an intimate and more or less perfect rapport. Now we can conceive that (if this were the case) the communicating intelligence might be, in some way, brought into more perfect rapport with the previously registered thought when the object previously worn was presented to it, for the reason that this object would bring back to the mind certain thoughts and associations belonging to the period when that thought was "registered," and we all know that association is a very large part of memory. In other words, a certain thought or set of thoughts was registered upon the Absolute, let us say, upon a certain occasion, and there were many associations linked with such thought. If now this object were the means of bringing the mind of the communicator into rapport with the previous state or condition of memory, in which it was enabled to re-read the thoughts previously " registered " in the manner suggested (because of the rapport supposed), then we might on this

theory have some faint idea of the modus operandi involved. But as the whole idea of the Absolute is purely speculative and theoretical, I do not think that such explanations can ever be seriously advanced, unless some proof be adduced of the correctness of the theory and of the existence of the postulated Absolute. We look with mingled interest and impatience for such proof.

It will be seen, then, as the upshot of this discussion, that the popular impression (that some " aura " emitted from the object impressed the neryous mechanism of the medium and influenced the controlling intelligence through it) is not nearly so simple an explanation as at first sight appeared, but one that is highly detailed and complex, and, when analysed down to its core, is not really intelligible at all, unless we are prepared to make some monstrous assumptions and advance hypotheses for which we have no adequate evidence and for which there is no analogy in the physical or mental worlds. But, as before pointed out, the facts must be explained, in any case, and the field is open for explanations that will really explain. Perhaps some of my readers may be enabled to throw some light on this question; for my own part, I must confess it is to me a baffling and as yet an insoluble mystery that confronts us and defies adequate explanation.

CHAPTER XII

THE NATURE OF APPARITIONS

IF we take up any book dealing with the history of the 'supernatural,' we find that the vast majority of the phenomena observed and recorded deal with cases of apparitions or haunted houses. As, however, I have discussed this question of haunted houses in another chapter, and as they are, in one sense, simply 'localised' apparitions, - that is, apparitions that have been seen by a number of successive individuals in one particular locality, or by a number of individuals at one time in that locality,-I shall in the present chapter dismiss that branch of the subject and confine the discussion to cases of apparitions that have been observed at various times, the various types of apparitions, and a discussion of the theories that have been advanced by members of the S. P. R. and others by way of explanation. In spite of the fact, however, that apparitions have been recorded with greater frequency than any other class of psychic phenomena, as I have said before, they have doubtless received a greater amount of ridicule from the world at large, and are less believed in than almost any other branch of psychic inves-

tigation. From one point of view, it is hard to see why this is the case; but looked at from another standpoint, it is quite natural. When a figure is seen, and suddenly vanishes, there is no proof that this figure is not a mere subjective hallucination, similar to those figures seen in feverish conditions, in delirium tremens, etc.; and in fact, the scientific and medical worlds have always recorded them as simple hallucinations or illusions, and while interesting in a sense, from a psychological standpoint, are certainly not worthy of serious consideration as affording any evidence of the supernormal; and this position, so far as it goes, is perfectly logical and justifiable. Since we know that hallucinations of the kind do occur, what proof have we in any case that the figure seen is not a hallucination, the result, perhaps, of a disordered mind, or a morbid physiological state? But apart from the phenomena presented in haunted houses, there are many facts tending to show that the figures seen are not, in many cases, mere subjective hallucinations, such facts seeming to indicate that the figure has some cause or source other than the mind of the seer. One of the first indications is the fact that, in numerous instances, the figure or phantom is seen by two or more persons at the same time, which would seem to prove that there is some outstanding entity, or some cause acting

upon two minds, causing them each to perceive the figure in the same manner and at the same time, since, if such figure were purely subjective, how is it that such coincidence occurred? Many psychical researchers contend, indeed, that the figure seen in such cases is an actual, outstanding entity, and is not subjective or 'psychological' at all. This brings us, of course, to a consideration of the nature of the figure seen, -- some contending that it is a more or less material, fluidic, ethereal body; others that the explanation is solely psychological, and that the explanation is to be found in this field, rather than in the physical world. Between these two schools there is an 'impassable gulf,' and the S. P. R. set out in its career with the intention of seeing if this gulf could not be bridged and a rational explanation of such apparitions put forward, --- if, i. e., the reality of such facts could, in one sense or another, be proved. Many such cases of apparitions were, consequently, collected, and, since the founding of the Society, it may be said that such cases have now run into the thousands. Very soon it began to be noted that there was a connection, in a very large percentage of cases, between the figure seen and the death of the person represented by such figure, and that there was, apparently, some coincidence between the death and the apparition seen. Now what is this coincidence? It was at this period that Messrs. Gurney and Myers came forward with their ingenious theory of 'telepathic hallucinations,' extending the theory of thought-transference, which had been practically demonstrated by experimental means, to cover such 'spontaneous' cases, as they were called. Let me make clear just here, in brief outline, what that theory is. I quote from an earlier article of mine, entitled "A Study of Apparitions," ¹ as follows:

"We have two persons, A and B, whose honesty we will take for granted. A is the "agent," B the "percipient." B is taken into one room, while A remains in a different part of the house, thus absolutely severing any connection between the agent and the percipient. A pack of cards is now shuffled and one drawn at random. It is, say, the nine of clubs. A fixes his eyes and thoughts on this card, and (sometimes) after more or less time spent in the operation, B perceives (more or less clearly) an image of the card chosen. The image may form before the eyes in space, or, if looking at a blank sheet of paper, the number of figures, or whatever the chosen article is, may appear as if written on the paper, to the percipient, and may be traced. So vivid is this mental pic-

¹ Published in the Psychic and Occult Views and Reviews, December, 1902, and January, 1903.

THE NATURE OF APPARITIONS 277

ture to some people (those who are credited with exceptional powers of visualisation, or thoughttransference) that it actually appears enlarged when viewed through a magnifying glass, and is reflected in a mirror. These figures are obviously as objective to the seer as any real external object is, for the time being; nevertheless, they are hallucinations, and purely subjective; so that the theory of the objective phantom being proved to be an outstanding entity because it is seen (sometimes) to be reflected in a mirror is, obviously, inconclusive. Any drawing or visible article may be thus reproduced in a good subject, the object appearing as if real to the percipient. Now, if a picture may be thus mentally transferred from one mind to another, why not the mental picture of some person? A sits down and wills that a mental image (an hallucination) of himself may appear to B. This "thought-image" actually does come into B's mind, and, taking the form of a visual hallucination, leaves the percipient under the impression that he has seen a "ghost." That this has been successfully attempted several times, the English Society for Psychical Research most positively assures us, and the cases may be read in full, together with the discussion to which this question has, very naturally, given rise.

"Now, all this falls under the head of "experi-

mental thought-transference," and it may very naturally be argued that when a man is dying, however much he may be thinking of home, he will not spend his time in trying to cause a "double" of himself, a "telepathic hallucination," to be perceived by those who are near and dear to him. Much less is this the case where instantaneous death puts an abrupt termination to all thought, so far as we know. The apparition appearing in this case is the result of *spontaneous* telepathy, and over this we exercise no control. This phenomenon, however, very rarely exhibits itself except under great mental stress, which would be the case, most assuredly, at the moment of death, This, then, is the generally accepted explanation of apparitions seen at the moment of that physical change which is known to us as death."

Of course this theory was valueless so long as it was not proved beyond question that such coincidences occurred with greater frequency than chance could account for. Whether or not they *did* occur had to be proved mathematically, and Mr. Gurney set out upon the immense task of demonstrating this, and to all fair minds succeeded beyond question in proving, in his monumental work, *Phantasms of the Living*, that coincidences occurred with greater frequency than chance could account for. But, in order to make assurance doubly sure, the Society continued its efforts, organising an international statistical inquiry, and obtained some thirty thousand answers in response to its inquiries relative to figures seen, death coincidences, etc. The result of its labour was published in Volume X, Proceedings S. P. R., occupying the entire volume as the Report of the Committee on the Census of Hallucinations. In this it was proved beyond question that such coincidences *did* occur with greater frequency than could be accounted for by chance, and from that day it may fairly be said that practically all impartial minds who have studied the evidence have become convinced that there is some causal connection between deaths and apparitions of the dying person, which, as the Committee stated, they regarded as a 'proved fact'! This telepathic theory also is used to explain 'collective hallucinations' (i. e., those appearing to two or more persons at the same time), the theory being that the mind of the dying person has either affected both minds equally, or that he has affected the mind of one seer, who, in turn, has affected the mind of his fellow percipient, causing them both to perceive the phantom in the same manner and at the same time. This explanation may appear to some a little far-fetched, of course, but there is certain experimental evidence in its favour. However, this

is a question into which we cannot at present go, as it would necessitate too lengthy a discussion of detailed and technical points. It is true that the coincidence, in such cases, has not always been exact; in many cases the figure is seen some minutes or even hours after the person the phantom represented had died, and in such cases, if we discard the theory of spirit influence acting telepathically upon the mind of the seer, we are forced to assume that the telepathic message was sent at the moment of the death of the person the phantom represented, but that such message remained 'latent,' as it were, for some time, until a favourable opportunity had been presented for its perception or 'externalisation.' The length of time that such a message can lie latent is, of course, very uncertain, but, for statistical purposes, twelve hours were allowed; beyond that time the coincidence was not reckoned, and the figure was treated as a " phantasm of the dead," instead of "the living." As this again brings us to the subject of haunted houses, I shall leave this aspect of the problem for the present.

There is one most interesting fact in this connection that we must now consider; namely, the apparition that materially affects the world; *i. e.*, some phantoms apparently occasion some definite physical changes that are left after their dis-

280

appearance, --- seeming to prove beyond question that such figures are in the nature of a real definite outstanding entity, and are not by any means subjective or the creation of the seer's own mind. Instances are on record in which not only footsteps have been heard, but doors have been opened and shut, handles turned, door bells rung, furniture upset, etc., and such cases present a very delicate problem indeed for us to solve. Some investigators assert that the phantom is, in many cases, definite and material enough to be perceived by natural means and actually photographed; others assert that such photographs have never been taken under sufficiently stringent conditions to insure their absolute genuineness. It is, of course, conceivable that a thought may be enabled to assume a more or less material form, such 'thought bodies' being the externalisation of the inner thought - one phase, perhaps, of materialisation. This, however, is a subject that cannot be considered in the present chapter, being altogether too detailed and intricate for a general discussion such as this.

There remains one interesting branch of the study of apparitions of which I have not as yet spoken. These are the so-called 'reciprocal' cases, where a figure of the agent is seen by the percipient and, at the same moment, the agent is

aware that he is manifesting, and actually sees the percipient and his surroundings,- being, apparently, clairvoyant himself. One most interesting case of this kind was reported in Phantasms of the Living, when the Rev. P. B. Newnham appeared to his fiancée and was seen by her and she felt him put his arm around her, but a moment later the figure had vanished and she became aware, for the first time, that the figure she had seen was not Mr. Newnham himself, but an apparition. At that same moment Mr. Newnham had himself experienced precisely the same sensations that he would have experienced had he been there in the flesh, --- and had seen, clairvoyantly, her surroundings. This is a typical case and illustrates, in a most interesting manner, this class of reciprocal or mutual psychic action, of which the S. P. R. has now collected a number of cases. The natives of West Africa assert indeed that they are enabled to perceive clairvoyantly scenes transpiring many miles away, at the moment that they are actually happening, and, at the same time, to 'materialise,' as it were, at the other end, being visible and tangible to the percipients who may happen to see the figure. This materialisation or figure is, they assert, material enough to move objects and effect other changes in the physical world. We are at present unable to assert that this is an impossibil-

ity, though the S. P. R. has as yet collected no well authenticated case of this character. Still, cases are on record which in some ways approximate this and enable us to assert that it is not an inherent absurdity or in any way impossible.

And this brings us to a final reflection, with which I will close. It is well known that cases of double consciousness exist in which two distinct and separate mental lives are lived by the individual, each possessing its own stream of thoughts, its own personality and character.

These 'selves' are doubtless fractions of the total self, each one being a portion of the subliminal self — that portion of our psychic being in which telepathy, clairvoyance, etc., operate. Now if we can conceive each personality --- distinct in itself — possessing the power to project itself, as it were, and in some sense materialise during such projection, forming a phantom or 'double' of that self (which we might possibly conceive it to symbolise in its physical aspect), we should have a case of the actual projection of that portion of our personality that was active at the time; and if we could conceive further that, in any definite individual, there is massed into one such personality all the evil traits, and into another personality all the good - the two mental lives being distinct and each being enabled to project its own

image or double as above suggested — we should have here the first glimpses of the possible scientific explanation of such cases as Stevenson's "Dr. Jekyll and Mr. Hyde." Such speculations are, of course, purely theoretical and tentative, and we might say that as yet we have no evidence that such cases are actual facts; but the evidence may yet be forthcoming that would warrant our formulating some such theory, and it is as well, perhaps, to be prepared for whatever evidence we may receive. The study of apparitions from a scientific standpoint has, of course, only begun. In fifty or one hundred years from now, we may know something of them; but at present there is next to nothing known as to their essence or causation, nor is much knowledge likely to be gained until the present bigoted and prejudiced manner of treating these subjects has been overcome, and they are discussed, not as mere superstitions or the results of a disordered brain, but as scientific facts, to be studied by scientific men in a scientific manner.

CHAPTER XIII

EXPERIMENTS IN WEIGHING THE SOUL

X J E have seen, in the preceding chapter, that a figure can be apparently seen and possibly even photographed, under appropriate conditions, by certain individuals. Such experiments and such experiences tend to convince us that the figure seen, whether it be soul, double, spirit, astral body, or what not, is apparently a far more material body than we have been in the habit of supposing. Were we to accept the facts as such, and interpret them as they are frequenty interpreted by a large body of investigators, and as they certainly appear to be (on their face value), we should be forced to come to the conclusion that the apparitions frequently seen are semi-material in their nature, and are by no means purely hallucinatory. If such were the case, and spirits were indeed composed of some sort of semi-material bodies, capable of reflecting light, then these bodies must not only be space-occupying, but must have weight. Thus reasoned Dr. Duncan MacDougall, whose experiments in "weighing the soul" created such a stir when first they were published in the newspapers. We obtained from Dr. MacDougall,

at the time, all the original documents in connection with his experiments, and these were published in the *Journal* of the American Society for Psychical Research.¹ I shall quote a part of these records, since they have never as yet reached the public, beyond those few individuals (comparatively) who are members of the Society. I shall also quote parts of my criticism of these experiments, together with portions of the correspondence that followed the publication of these records. I cannot but think that this will be of interest to my readers, since these are the only authentic experiments that have ever been tried in this direction, so far as I know.

Dr. MacDougall's article, entitled "Hypothesis Concerning Soul Substance, Together with Experimental Evidence of the Existence of Such Substance," reads, in part, as follows:

"If personal continuity after the event of bodily death is a fact, if the psychic functions continue to exist as a separate individuality or personality after the death of brain and body, then such personality can only exist as a space-occupying body, unless the relations between space objective and space notions in our consciousness, established in our consciousness by heredity and experience, are

¹ May, 1907.

entirely wiped out at death and a new set of relations between space and consciousness suddenly established in the continuing personality, which would be such a breach in the continuity of nature that I cannot imagine it.

"It is unthinkable that personality and consciousness continuing personal identity should exist, and have being, and yet not occupy space. It is impossible to represent in thought that which is not space occupying as having personality, for that would be equivalent to thinking that nothing had become or was something, that emptiness had personality, that space itself was more than space, all of which are contradictions and absurd.

"Since, therefore, it is necessary to the continuance of conscious life and personal identity after death that they must have for a basis that which is space-occupying or substance, the question arises, Has this substance weight; is it ponderable?

"The essential thing is that there must be a substance as the basis of continuing personal identity and consciousness, for without space-occupying substance, personality or a continuing conscious ego after bodily death is unthinkable.

"According to the latest conception of science, substance or space-occupying material is divisible into that which is gravitative — solids, liquids, gases, all having weight — and the ether which is non-gravitative. It seemed impossible to me that the soul substance could consist of ether. If the conception is true that ether is continuous and not to be conceived of as existing or capable of existing in separate masses, we have here the most solid ground for believing that the soul substance we are seeking is not ether, because one of the very first attributes of personal identity is the quality or condition of separateness. Nothing is more borne in upon consciousness than that the you in you and the me in me, the ego, is detached and separate from all things else — the non-ego.

"We are therefore driven back upon the assumption that the soul substance so necessary to the conception of continuing personal identity, after the death of this material body, must still be a form of gravitative matter, or perhaps a middle form of substance neither gravitative matter nor ether, not capable of being weighed and yet not identical with ether. Since, however, the substance considered in our hypothesis must be linked organically with the body until death takes place, it appears to me more reasonable to think that it must be some form of gravitative matter, and therefore capable of being detected at death by weighing a human being in the act of death.

"The subjects experimented upon all gave their consent to the experiment weeks before the day of

WEIGHING THE SOUL

death. The experiments did not subject the patients to any additional suffering.

"My first subject was a man dying of tuberculosis. It seemed to me best to select a patient dying with a disease that produces great exhaustion, the death occurring with little or no muscular movement, because in such a case the beam could be kept more perfectly at balance and any loss occurring readily noted.

"The patient was under observation for three hours and forty minutes before death, lying on a bed arranged on a light framework built upon very delicately balanced platform beam scales. The patient's comfort was looked after in every way, although he was practically moribund when placed upon the bed. He lost weight slowly at the rate of one ounce per hour, due to evaporation of moisture in respiration and evaporation of sweat.

"During all three hours and forty minutes I kept the beam end slightly above balance near the upper limiting bar in order to make the test more decisive if it should come.

"At the end of three hours and forty minutes he expired, and suddenly, coincident with death, the beam end dropped with an audible stroke, hitting against the lower limiting bar and remaining there with no rebound. The loss was ascertained to be three-fourths of an ounce.

0 THE COMING SCIENCE

"This loss of weight could not be due to evaporation of respiratory moisture and sweat because that had already been determined to go on, in his case, at the rate of one-sixtieth of an ounce per minute, whereas this loss was sudden and large three-fourths of an ounce in a few seconds.

"The bowels did not move; if they had moved the weight would still have remained upon the bed, except for a slow loss by the evaporation of moisture, depending, of course, upon the fluidity of the fæces. The bladder evacuated one or two drachmes of urine. This remained upon the bed and could only have influenced the weight by slow, gradual evaporation, and therefore in no way could account for the sudden loss.

"There remained but one more channel of loss to explore, the expiration of all but the residual air in the lungs. Getting upon the bed myself, my colleague put the beam at actual balance. Inspiration and expiration of air as forcibly as possible by me had no effect upon the beam. My colleague got upon the bed and I placed the beam at balance. Forcible inspiration and expiration of air on his part had no effect. In this case we certainly have an inexplicable loss of weight of three-fourths of an ounce. Is it the soul substance? How else shall we explain it?

290

"My second patient was a man moribund from consumption. He was on the bed about four hours and fifteen minutes under observation before death. The first four hours he lost weight at the rate of three-fourths of an ounce per hour. He had much slower respiration than the first case, which accounted for the difference in loss of weight from evaporation and respiratory moisture.

"The last fifteen minutes he had ceased to breathe, but his facial muscles still moved convulsively, and then, coinciding with the last movement of the facial muscle, the beam dropped. The weight lost was found to be half an ounce. Then my colleague auscultated the heart and found it stopped. I tried again, and the loss was one ounce and a half and fifty grains. In the eighteen minutes that elapsed between the time he ceased breathing until we were certain of death, there was a weight loss of one and one-half ounces and fifty grains, compared with a loss of three ounces during a period of four hours, during which time the ordinary channels of loss were at work. No bowel movement took place. The bladder moved, but the urine remained upon the bed and could not have evaporated enough through the thick bed clothing to have influenced the result.

"The beam at the end of eighteen minutes of

doubt was placed again with the end in slight contact with the upper bar and watched for forty minutes, but no further loss took place.

"My scales were sensitive to two-tenths of an ounce. If placed at balance one-tenth of an ounce would lift the beam up close to the upper limiting bar, another one-tenth ounce would bring it up and keep it in direct contact, then if the two-tenths were removed the beam would drop to the lower bar and then slowly oscillate till balance was reached again.

"This patient was of a totally different temperament from the first, his death was very gradual, so that we had great doubt from the ordinary evidence to say just what moment he died.

"My third case, a man dying of tuberculosis, showed a weight of half an ounce lost, coincident with death, and an additional loss of one ounce a few minutes later.

"In the fourth case, a woman dying of diabetic coma, unfortunately our scales were not finally adjusted and there was a good deal of interference by people opposed to our work, and although at death the beam sunk so that it required from threeeighths to one-half ounce to bring it back to the point preceding death, yet I regard this test as of no value.

"With my fifth case, a man dying of tuberculo-

292

sis, there showed a distinct drop in the beam requiring about three-eighths of an ounce which could not be accounted for. This occurred exactly simultaneously with death, but peculiarly on bringing the beam up again with weights and later removing them, the beam did not sink back to stay back for fully fifteen minutes. It was impossible to account for the three-eighths of an ounce drop, it was so sudden and distinct, the beam hitting the lower bar with as great a noise as in the first case. Our scales in the case were very sensitively balanced.

"My sixth and last case was not a fair test. The patient died almost within five minutes after being placed upon the bed, and died while I was adjusting the beam.

"In my communication to Dr. Hodgson I note that I have said there was no loss of weight. It should have been added that there was no loss of weight that we were justified in recording.

"My notes taken at the time of experiment show a loss of one and one-half ounces, but in addition it should have been said the experiment was so hurried, jarring of the scales had not wholly ceased and the apparent weight loss, one and one-half ounces, might have been due to accidental shifting of the sliding weight on the beam. This could not have been true of the other tests, as no one of them was done hurriedly. "My sixth case I regard as of no value from this cause. The same experiments were carried out on fifteen dogs, surrounded by every precaution to obtain accuracy, and the results were uniformly negative: no loss of weight at death. A loss of weight takes place about twenty to thirty minutes after death, which is due to the evaporation of the urine normally passed, and which is duplicated by evaporation of the same amount of water on the scales, every other condition being the same, *e. g.*, temperature of the room, except the presence of the dog's body.

"The dogs experimented on weighed from fifteen to seventy pounds and the scales with the total weight upon them were sensitive to one-sixteenth of an ounce. The tests on dogs were vitiated by the use of two drugs administered to secure the quiet and freedom from struggle necessary to keep the beam at balance.

"The ideal test on dogs would be obtained in those dying from some disease that rendered them much exhausted and incapable of struggle. It was not my fortune to get dogs dying from such sickness.

"The net result of the experiments conducted on human beings is that a loss of substance occurs at death not accounted for by known channels of loss. Is it the soul substance? It would seem to me to be so. According to our hypothesis such a substance is necessary to the assumption of continuing or persisting personality after bodily death, and here we have experimental demonstration that a substance capable of being weighed does leave the human body at death.

"If this substance is a counterpart of the physical body, has the same bulk, occupies the same dimensions in space, then it is a very much lighter substance than the atmosphere surrounding our earth, which weighs about one and one-fourth ounces per cubic foot. This would be a fact of great significance, as such a body would readily ascend in our atmosphere. The absence of a weighable mass leaving the body at death would of course be no argument against continuing personality, for a space-occupying body or substance might exist not capable of being weighed, such as the ether.

"It has been suggested that the ether might be that substance, but with the modern conception of science that the ether is the primary form of all substance, that all other forms of matter are merely differentiations of the ether having varying densities, then it seems to me that soul substance, which in this life must be linked organically with the body, cannot be identical with the ether. Moreover, the ether is supposed to be non-discontinuous, a continuous whole and not capable of existing in separate masses as ether, whereas the one prime requisite for a continuing personality or individuality is the quality of separateness, the ego as separate and distinct from all things else, the nonego.

"To my mind, therefore, the soul substance cannot be the ether as ether, but if the theory that ether is the primary form of all substance is true, then the soul substance must necessarily be a differentiated form of it.

"If it is definitely proven that there is in the human being a loss of substance at death not accounted for by known channels of loss, and that such loss of substance does not occur in the dog, as my experiments would seem to show, then we have here a physiological difference between the human and the canine at least and probably between the human and all other forms of animal life.

"I am aware that a large number of experiments would require to be made before the matter can be proven beyond any possibility of error, but if further and sufficient experimentation proves that there is a loss of substance occurring at death and not accounted for by known channels of loss, the establishment of such a truth cannot fail to be of the utmost importance.

"One ounce of fact more or less will have more

weight in demonstrating the truth of the reality of continued existence with the necessary basis of substance to rest upon than all the hair-splitting theories of theologians and metaphysicians combined.

"If other experiments by other experimenters prove that there is a loss of weight occurring at death, not accounted for by known channels of loss, we must either admit the theory that it is the hypothetical soul substance, or some other explanation of the phenomenon should be forthcoming. If proven true, the materialistic conception will have been fully met, and proof of the substantial basis for mind or spirit or soul continuing after the death of the body, insisted upon as necessary by the materialists, will have been furnished.

"It will prove also that the spiritualistic conception of the immateriality of the soul is wrong. The postulates of religious creeds have not been a positive and final settlement of the question.

"The theories of all the philosophers and all the philosophies offer no final solution of the problem of continued personality after bodily death. This fact alone of a space-occupying body of measureable weight disappearing at death, if verified, furnishes the substantial basis for persisting personality or a conscious ego surviving the act of bodily death, and in the element of certainty is worth more than the postulates of all the creeds and all the metaphysical arguments combined.

"In the year 1854 Rudolph Wagner, the physiologist, at the Gottingen Congress of Physiologists proposed a discussion of a "Special Soul-Substance." The challenge was accepted, but no discussion followed, and among the five hundred voices present not one was raised in defence of a spiritualistic philosophy. Have we found Wagner's soul substance?"

These speculations cannot fail to have great interest to my readers, of that I am assured. Dr. MacDougall's speculations as to the nature of the soul are beside the question, for our present purposes, and I shall not stop to consider them now. After all, the proof or the disproof of Dr. Mac-Dougall's theories, or even of his facts, would have no final and conclusive bearing upon the problems of psychical research one way or the other. As Dr. Hyslop said at the time: "It should be observed that the problem of psychic research is not affected by either success or failure in such experiments as Dr. MacDougall's. One might even contend that success in proving the loss of weight by death in some way not ordinarily accountable by physical theories would not prove that the residuum was a soul. It might be some vital energy, and the soul yet remain an imponderable form

of substance. It might even be that vital force, if such there be other than the orthodox chemical theory of life, is also imponderable, and that the residuum in such experiments as Dr. MacDougall's would be some form of matter not yet known. All that successful experiments would prove would be that there was some form of energy unaccounted for by known agencies, and not necessarily that this residuum was the subject of consciousness. The problem of psychic research, in so far as it represents the search for a soul, concerns the evidence that consciousness survives death, and that is a psychological, not a physical problem. Even after we proved that *something* survived death, we should still have to prove that it was conscious and also to prove that it was the same consciousness that we had once known as a living human person. That can be determined only by communication with the discarnate, and any conclusion established by that method would be indifferent to the question whether the subject of consciousness was ponderable or imponderable. Failure to prove that the residuum in such experiments as Dr. MacDougall's is ponderable would not affect this question of personal identity. It would remain a legitimate suit or question in any case, especially as we are privileged to assume imponderable and space-occupying substances. As for

myself, I have no objections to the Leibnitzian or Boscovitchian point of view, which is that the ultimate nature of substance is spaceless. I do not accept that view, but I have no facts or philosophy that require me to contradict it. I simply ascertain facts and accept the conclusions which they make imperative, and hence I make no *á priori* assumptions as to what the substance of the soul or of anything else must be. That has to be determined by the facts, not by hypotheses antecedent to facts."

At the time these experiments were published, I advanced some adverse criticisms, bearing upon this question, and at the same time corrected certain newspaper stories that had been going the rounds,— certain statements having been attributed to me which I had never made. I went on to say that such experiments as these would have to be repeated a number of times before they could gain recognition from the scientific world, especially as all former experiments in this direction seem to have yielded opposite and contrary results. Thus:

"It has very frequently been asserted that this experiment has been tried, and in Hibbert's *Life* and *Energy* will be found a Chapter entitled 'Is Life Matter?' in which this question is considered and the author comes to the immediate conclusion that life is not matter owing to this very fact — that the dead body does not weigh less than the same body, alive. I am unaware of any firsthand accounts of such a series of experiments having been made, however, and it would be amusing if it should turn out that such experiments never had been made — after science has stated so dogmatically for so many years that the question had already been settled past all dispute!

"For, after all, the whole question is one of actual experiment, and can never be settled by speculations of any sort - philosophic or otherwise. Whether the soul is or can be a space-occupying body or not is beside the question, it seems to me, and should not enter into any argument based upon observed facts; or, if so, it should be allowed weight only as a personal opinion, and in no wise influence the conclusions drawn from a study of the facts. Taking the experiments, then, as Dr. MacDougall has described them, the question arises: Granting that the facts exist, as stated, would these results prove the contention that the observed loss of weight was due to the exit from the body of some hypothetical soul substance, or may the facts (granting them to exist, as stated) be explained in some such manner as to render Dr. MacDougall's hypothesis unnecessary?

" I must say that Dr. MacDougall seems to have

provided pretty thoroughly against all normal losses of weight. His papers indicate this clearly. The only channel that need be taken seriously into account is the lungs; i. e., the loss of weight due to expired air. It therefore becomes a question of the amount of air the lungs may contain, and its consequent weight, --- granting, for the sake of argument, that every particle of air is forced out of the lungs at death. A cubic foot of air, at the ordinary temperature, and at sea-level, weighs about one and one-fourth ounces, we are told — a statement that is confirmed by the Encyclopædia Britannica and other authorities. In the cubic foot there are 1728 cubic inches. Now, we know that the average capacity of the lungs of a healthy human being is about 225 to 250 cubic inches;¹ but let us say 300 cubic inches to be on the safe side. This is, as nearly as possible, one-sixth of an ounce, granting that all the air is expired at death - for which we have no evidence - and that the lungs contained as much as 300 cubic inches of air. This is also a practical impossibility, in such cases as those quoted, for the reason that this represents the state of healthy lungs at the moment of the fullest inspiration. The majority of persons, however, could not inhale 200 cubic inches (the twelfth of an ounce), while consumptive patients,

¹ Kirke, Physiology, p. 262.

dying, and in the last stages of the disease, would not contain within their lungs anything like 100 cubic inches — the eighteenth of an ounce. When, therefore, Dr. MacDougall tells us that more than a whole ounce is lost instantaneously, at the moment of death, we must seek elsewhere than in this direction for the explanation of the facts.

"First of all: May it not be that there are some etheric or electrical conditions of the body which are no longer present after death, ceasing at that moment, yet in no way connected with any form of thought or consciousness? It does not seem to have occurred to Dr. MacDougall that, coincident with life, there may be present certain electric or other activities of the body, which cease at the moment of death, but are in no sense causal of the thought and consciousness, that are also coincidental with life in the body. Both conditions may be present in a living body, though one may not be causal of the other in any degree. Both are merely coincidental. It is quite possible - not to say probable --- that consciousness acts on some sort of etheric medium, which in turn acts upon the nervous mechanism, and that, at death, consciousness (itself spaceless and weightless) withdraws at once from the organism, while the etheric medium withdraws more or less gradually, according to the condition of the organism at the time --- this, in

turn, determined by the duration and the severity of the attendant disease. In some cases, such as consumption, where we might almost say the body has died before it dies, we might assume that this etheric medium would leave the body rapidly and be noticed immediately, while in other diseases this withdrawal would be much slower, and would not be registered by the balance until some considerable time after the death, and in such cases would have no evidential value, since (like apparitions of the dead, as opposed to apparitions of the living) there would be no coincidence to form the striking Such a withdrawal would account for the event. facts, perhaps, without resorting to the supposition that consciousness was in any way that which caused the loss of weight indicated by the balance.

"However, all the above speculations are purely hypothetical, of course, and would have no weight with the materialist --- who does not accept either consciousness as an entity, or the hypothetical etheric medium I have postulated. He has, however, to explain the facts, which seem to be pretty well established. Is it possible to form some sort of explanation without even resorting to the 'biological metaphysics' in which I have just indulged? Some experiments I have made, and some observations of certain cases, cause me to think that these losses and gains of weight might, perhaps,

be accounted for in other ways. I present some facts for the reader's consideration.

"I have been enabled to watch the progress of a number of cases of patients who have had their health restored to them by means of the Fasting Cure; *i. e.*, the process of abstaining entirely from all solid and liquid food for a number of days - thirty, forty, fifty, and longer - with the almost uniform result that health has been restored to these persons, though they had previously been given up to die by the physician in charge of the case. I have embodied the results of these observations in my book, Vitality, Fasting and Nutrition. One chapter — the one that concerns us here — is devoted to 'The Loss and the Gain in Weight.' I found that, by comparing a number of cases suffering from a number of different diseases (or, as I hold, different aspects of the same underlying cause), an average loss of weight was noticed which I calculated was as nearly as possible one pound per diem. We might assume, therefore, it would seem, that sixteen ounces was the 'ideal' loss of weight, so to speak, were it not for the fact that all the persons undergoing the fast were more or less diseased, and I had previously shown that all diseased persons (as a rule) lose more weight than the same persons in health. After some further discussion, I was forced to the

conclusion that twelve ounces represented the average daily loss of weight of persons in health, or one-half an ounce each hour. This would seem to coincide to some extent with the results of Dr. MacDougall, conducted on other lines for different reasons. But all this and other discussion does not concern us so much here, for the reason that all such losses and gains in weight are intelligible and can be explained by the known laws of physiology. The interesting point, in this connection, is this: I noted that, on several occasions, losses and gains of weight were noted that could not so readily be accounted for - and losses and gains not of ounces, merely, but of pounds. Let me give some illustrations. There was held, at the Madison Square Garden, New York, an athletic contest, all the participants in the contest having to enter upon it after having fasted, absolutely, for seven days. The object was to show that we do not lose strength while fasting in the way that most persons think we do, and so successful was the demonstration that several of the contestants actually made world's records at that time. However, this is not the place to call attention to those facts. What I wish to say, particularly, is that, during this week, one of the contestants, a Mr. Estrapper, 'instead of losing weight, actually gained threequarters of a pound! . . . This weight was

very accurately ascertained, and there was no possible source of error through which a mistake could have been made. . . The measurements and weights were taken with the greatest care, and the contestants were under the strictest surveillance throughout the whole period, and were frequently observed and examined by New York physicians and others.' Mrs. Martin, of Stapleton, S. I., gained weight during a fast of eight days. Dr. Rabagliati has recorded one case in which the patient gained one and one-half pounds in three weeks, on a diet of less than eight ounces of food a day, ninety per cent. of which was water.¹ I myself have observed several cases almost or quite as remarkable. Mrs. B. (after a four days' fast) gained eight pounds on three meals and one plate of soup. Each of the three meals was very light, and certainly did not weigh anything like a pound each. Mrs. C. again (after a twenty-eight days' fast) gained ten pounds in six days, on no solid food whatever - liquid food only being allowed during this period. The food consisted in broths and fruit juices, and a very little milk. Dr. T. L. Nichols has recorded a case in which a patient of his gained weight on less than three ounces of solid food each day."²

¹ Air, Food and Exercises, pp. 204-5. ² The Diet Cure, p. 20.

Here, then, we have certain cases in which weight is gained by some means, through some channel, other than that recognised by physiologists - at least, so it would appear. The fact that certain persons gained more weight than the food they ate certainly seems a physiological paradox, for the reason that we are supposed to increase our flesh and weight solely from the food we eat. And if more weight is gained than the food eaten, how are we to account for the facts? In such cases, are we to attribute the gain in weight to added soul substance? We might be tempted to do this, yet a long study of these cases has convinced me that such a course would not be necessary. It is possible to have some sort of hypothetical explanation of the facts — paradoxical as they may seem — on other, normal grounds. In some cases great denseness of tissue is present — it is obstipated, as it is called and when such a person fasts, he or she oxidizes off a part of this too-solid tissue and fills in the interstices with water, which the patient is at liberty to drink, always, during the fast. This is, at least, the explanation which I have been driven to adopt, none other seemingly covering the facts.

There are also cases in which an extraordinary loss of weight has been noticed. I have known of one case in which the patient lost forty pounds in three weeks, while fasting three days at a time, and

eating one meal on the fourth. More remarkable still is another case in which the patient lost seventy-five pounds in twenty-one days of an absolute fast — an average of almost three and onehalf pounds per diem. Still, these cases might perhaps be accounted for, since the patients were both very stout women, and, in all such cases, weight is very rapidly lost. Still, how are cases to be explained in which great loss of weight is noted through purely mental trouble, though the person may have, throughout this period, all the food he cares to eat; and loses weight, moreover, at a greater rate than if he ate nothing at all? Probably the most remarkable case of this kind - one that cannot be explained by any of the ordinary laws of physiology - is that recorded by Rear-Admiral George W. Melville, U. S. N., and published in his Report to the Smithsonian Institute. The passage runs as follows:

"It is on record that one individual in a New England town several months ago actually entered a metallic burial casket and was sealed up for a period of one hour. He simply demanded that the glass plate over the head-piece be not covered, and that the individuals conducting the test should look through the head-plate at intervals, so that he could smile at them. It was rather a ghastly test, but it was a successful one, although the individual

undergoing the operation lost five pounds in the undertaking! In this test the man did not probably have two cubic feet of air to draw upon.¹ Here, then, we have a loss of weight that, if recorded correctly, cannot be explained by known laws of physiology, since the person undergoing the test took no bodily exertion, and the loss cannot be due to any of the known channels of loss. Would such a test indicate that soul substance had been lost? Evidently not, since the man continued to live. In such a case, then, we have a decrease in weight that cannot be explained by present-day physiology; and, until such cases are in some measure accounted for, it is at least premature to assert or even propose that an observed loss of weight, at the moment of death, is due to any soul substance, or that it has any necessary connection with soul or consciousness at all. While, then, I think that Dr. MacDougall has certainly made some most interesting and important discoveries, and that further experiment along these lines is greatly to be desired, we cannot hold out much hope that we shall, by such means, ever demonstrate that the human soul weighs an ounce, even though the reality of the losses be proved. The conditions attendant upon death are so little known, and the human organism is subject to such queer variations

¹ The Submarine Boat, p. 723.

in weight, even when alive, that many and positive proofs will have to be forthcoming before his interpretation of the facts, even though they themselves should be established, can be accepted by science."

When the above criticism was published, Dr. MacDougall issued a rejoinder, stating that my explanations did not explain, and that the case quoted by me, of the immense loss of weight when shut in the coffin, could be accounted for by reason of the fact that such a body would perspire profusely, and would in all probability lose weight in that way. I think that this is quite probable, but the case cannot be settled now for want of confirmatory evidence. The experiments are likely to remain in their present position of isolation and uniqueness until a further series of experiments are tried — which, let us hope, will be in the near future.

CHAPTER XIV

HAUNTED HOUSES: THEORIES

THERE is probably no more interesting branch of psychical research, yet none about which the public is more misinformed, than the subject of haunted houses. Cases of 'hauntings' have occurred, or at least have been reported, throughout the history of all ages, with probably greater frequency than any other phenomena of this character; but though the early literature of the subject contains very numerous accounts of such cases, the S. P. R. has been unable ever to definitely bring to light more than four or five well authenticated cases, that would stand the test of impartial and exact scrutiny. Still, such cases form a nucleus around which may gather those of more dubious origin, and, providing these are definitely proved to exist, the other cases receive more or less greater impetus towards credibility, and, should such cases be collected in sufficient numbers, would necessitate our accepting haunted houses as more or less definitely established facts of nature, though as yet it must be acknowledged that this certainty has not been achieved. Still, there are enough well-attested cases on hand to warrant the

average psychical researcher in accepting the *fact* of their existence in some form or another, without definitely accepting any theory as to their explanation, and I think that any impartial mind who has studied the evidence will accept the *fact* of the haunting in some cases, at least, whatever theory of the facts is held, or whatever construction may be put upon the phenomena observed.

The typical "haunted house" is too well known to need description; more or less vague visions being seen by one or more members of the household, footsteps in different parts of the house, sighs, sobs, moans, and fragments of sentences being heard, more or less distinctly, - and sometimes even touches, and other more material evidences being recorded, --- serving to establish, apparently, the objectivity of the ghost. Those of my readers who are interested in such phenomena I would refer to Mrs. Crowe's Night Side of Nature, or to two modern cases, one 1 by Miss Morton, entitled "Record of a Haunted House," and one a book by Miss X., entitled The Alleged Haunting of B---- House. It is not the province of this paper to go into the alleged facts in such cases, since I shall take it for granted that the majority of my readers are familiar with the phenomena of haunted houses, as they are gener-

¹ Proceedings S. P. R., Vol. VIII, pp. 311-32.

314 THE COMING SCIENCE

ally reported, and shall here but briefly consider the various theories that have been advanced by way of explanation.

Mrs. Sidgwick in her most interesting article on "Phantasms of the Dead"¹ advanced, tentatively, four theories in explanation of haunted houses. Briefly, and in outline, they are as follows:

Theory 1. The ghost is an outstanding, objective entity — a real, more or less material being which actually exists in the material world, and exists whether perceived by a seer or not. That is, a ghost is a separate entity, and exists whether or not the seer is present to perceive it. This, of course, is the commonly accepted theory and the one the public conceives as the true explanation of all cases of so-called haunted houses, involving a more or less material being --- a ' materialised soul,' so to speak. To this theory there are, of course, various objections. In the first place, it is taken for granted that there is such a thing as a soul to exist, which is precisely what we set out to prove in investigating all such cases, and to accept it as already proved is a monstrous assumption. Another objection is that, were the so-called ghost really to exist independently, it would doubtless be seen by two or more persons at the same time; but this is very rarely the case, even when several per-

¹ Proceedings S. P. R., Vol. III, pp. 69-150.

sons are together,— though this has sometimes happened,— and in any case the objection is not altogether valid for reasons that have been advanced in the last chapter. The great and most crushing objection to this idea of the ghost is the old argument as to the ghost's *clothes*. Ghosts invariably appeared clothed, and, if they are real outstanding entities, their clothes must be ghostly counterparts of their material raiment also, since they are part and parcel of the figure and inseparable from it! This old objection has never been satisfactorily answered by the advocates of the external objectivity of apparitions, and I shall merely state it and pass to the next theory advanced in explanation of haunted houses.

Theory 2. This theory was, I believe, originated by Mr. Podmore, or at least elaborated by him, and he is its staunchest defender. The theory in brief is this: that one occupant of the house has experienced a subjective hallucination, visual or other, consequent upon the abnormal mental condition of the percipient, or person seeing the ghost, which mental condition may have been engendered by purely material causes being misinterpreted — such as the dropping of water, perceived as footfalls, etc.— or have a purely subjective origin in the morbid imagination of the seer. Having once conjured up this imaginary figure, which would, in this case, it must be observed, be nothing more than a hallucination, this figure might appear again to the same percipient, owing to the association of ideas, or to other members of the house, the mental condition being then communicated by thought-transference from the original seer; and, when these occupants move and others occupy the house, the thoughts of the former occupants might, by thought-transference, so affect the minds and senses of the *then* inhabitants as to predispose them to perceive the images formerly beheld by the occupants first perceiving them!

The objections to this theory are also, of course, many. In the first place, we should have to assume (and this is a monstrous assumption) that the mind of the *first* seer was in some manner morbidly affected before he saw the ghost in the first instance, and of this, in many cases, we have absolutely no proof. And further, we should have to assume (and this is again a monstrous assumption) that this person could, all unconsciously, affect the minds of the following tenants, by telepathy, to such an extent as to predispose their minds to behold the same apparitions. And why should the two series of apparitions agree in appearance, as they apparently do? As Mr. Andrew Lang has so humorously remarked: ¹ "Surely the peace of us all rests on a very uncertain tenure!"

Theory 3. This theory assumes that there is, in the house, some "subtle physical influence," abiding either in the walls, in the atmosphere, or in some article of furniture in the house, which is capable of affecting, in turn, each tenant, causing them to be affected, to a certain extent, in somewhat the same manner. The 'atmosphere' spoken of is, of course, psychic, not physical; and I think there is a great deal to be said in favour of this theory, and that not enough consideration has been given to it in the records of psychical research. That persons do carry with them their own individual 'aura' or atmosphere, there can be no doubt; and though it is, of course, quite intangible, it is nevertheless distinctly felt by those psychics attuned to receive and appreciate such influences. The spontaneous aversion of two persons one to the other, or the case of " love at first sight " might, it has been pointed out, be explained upon this theory of the mutual blending or repulsion of the psychic aura of the individuals. And that this extends to the so-called inanimate world, to a lesser extent, is, it seems to me, undoubtedly true. Certain subjects can collect and retain such impres-

¹ Cock Lane and Common Sense, p. 149.

sions, and be capable of arousing in the sensitive the same impressions as those with which they are charged, when handled again by such psychics; and of this fact we have constant proof in the phenomena of psychometry and trance-mediumship — for example, the case of Mrs. Piper. As Miss X so well remarked,¹ "A house might perhaps be described as being in a 'haunted atmosphere.' This question of atmosphere is so exceedingly subjective that the sensation is difficult to analyse. It is one of which all 'sensitives' are conscious, both as to places and persons, and I am inclined to think that in both cases the emotion is telepathic. Most of us know, in some degree, the overwhelming sensation of the presence of Westminster Abbey, or whether we chance to be very loyal or no on hearing 'God Save the Queen' sung by a thousand voices, or the sight of a lifeboat, or a relic of Prince Charlie, or a warhorse that has been in action, or the colours used at Waterloo or Balaklava, or of the mast of the Victory. We may dismiss the emotion as simply 'cosmic,' but I venture to think that we are, some of us, overwhelmed because we are for the moment the subject of the emotions of others as well as of our own."

And in other, subtler ways we feel such impres-¹ Essays in Psychical Research, pp. 41-2.

sions. I have myself, for instance, when entering a certain room, found myself humming an air, all unconsciously, which I had been humming in that same room on the last two or three occasions in which I had been in it, and at no other times; that is, the atmosphere of the room had, apparently, in some way influenced my unconscious mind to the extent of associating with it, and with it only, that particular tune. And it seems to me that this same influence might extend to a greater degree, and in a more forcible manner, in arousing, in our subliminal consciousness, thoughts and associations of a more subtle, psychic character, which might tend to externalise themselves, whenever in that room, in phantasms - visual, auditory or tactile.

The objections to this theory are, of course, almost too apparent to be pointed out, and I shall not dwell upon them here. That an influence of this character must involve more or less mentality or consciousness is obvious; and if mentality is involved, then this mentality is either that of some all-pervading consciousness, or of some individual either known or unknown to the beholder; and if the latter is the case, it involves a consideration of the fourth theory, which I outline herewith.

Theory 4. Mr. Myers, in his article on "Rec-

ognised Apparitions Occurring More Than a Year After Death,"¹ has so beautifully stated this theory that it would be impossible for me to do better than quote herewith; but owing to the length at which the theory was there elaborated, it is impossible for me to do so at sufficient length to justify quotation, and I shall consequently give a brief résumé of his theory.

Mr. Myers, then, started with the admitted fact of telepathy, or thought-transference between the living. He endeavoured to show that its action was that of soul to soul; that is, that it was an immaterial, non-physical thing, and belonged solely to the immaterial, psychic or spiritual world. Consequently, he argued, telepathy was, in all probability, the mode of communication between soul and soul when disembodied, --- that is, spirits thus commune with one another; and this agrees with the statements made by 'spirits' who have, according to their own account, returned to tell us of the conditions 'on the other side.' From this Mr. Myers goes on to argue that it is more than probable that it is the mode of communication between spirits either embodied or disembodied, and that one may be embodied — that is, alive, — and the other may be disembodied --- that is, dead --- and yet telepathy be the means of communication between them. Now

¹ Proceedings S. P. R., Vol. VI, pp. 13-65.

if this be true, telepathy is the means by which the spirit communicates or sends messages or impressions to those still in the flesh, and this impression may be in the form of a message, warning, intuition or 'internal voice,' or in the more externalised forms of the vision, the voice, or the touch. They all originate from the same source, the differences being in us — in our mode of apprehension — and in the manner in which the message is externalised by us, or rendered capable of perception by our ordinary consciousness. Thus we see that the spirit of the departed person (supposing it exists and retains its personal identity) may impress the subliminal consciousness of one still living with an imprint or impress of its individuality; and this thought may take form or become externalised as a visionary image or figure, constituting what is popularly known as a "ghost." It will thus be seen that haunted houses may really exist in so far as they actually do affect the persons residing in them, and that figures really are seen and voices heard, though they do not themselves have an external or actual existence. They really exist so far as the mind of the seer goes, and it is not right to say that they have no existence at all, since they are mental states as truly as any other mental states, and all that we know of the external world is, after all, but a series of mental states or condi-

tions. It is true there is no corresponding physical counterpart to the apparition or figure seen, and that the figure exists purely in the mind of the person seeing it, but the origin of such figure has a real external existence - in the mind of a deceased person; and to say that haunted houses do not exist is, therefore, obviously incorrect. It is only correct if we think of haunted houses in the popular sense of the term, --- that is, as houses in which appear more or less material, externalised figures wrapped in sheets and parading about in more or less material form. Such, of course, is a crude materialistic conception, which cannot be entertained; but that *real influences* are at work in certain houses, affecting the minds, senses and the subliminal consciousness of those residing within them is beyond question, and to deny it is to deny well-recorded facts, which would be a most unwarranted proceeding.

Provisionally accepting, then, this last explanation as the true one, so far as it goes (or at least in combination with one or other of the three former theories, elaborated above), let us now consider one or two of the complex problems into which we are led in accepting this theory as the true one.

There are some cases on rccord where the inhabitant of a haunted house has been (apparently) prevented by some unseen but supposedly physical

322

force from accomplishing some act or purpose --such, for example, as reaching forth the hand and obtaining possession of the matches, etc. In such cases, the individual so attempting to reach forth his hand has had it grasped or restrained by some unseen hand or force, so much stronger than the seer's volition that he has been unable to reach them. That, at least, is what the sensation experienced is like. This is one very interesting phenomenon that has been frequently recorded by visitors to haunted houses, and I think the explanation of such occurrences can now be found, though I have never seen the explanation I bring forward elsewhere. Its rationality must be judged by the reader. I merely offer it as a provisional theory, which explains the facts without undue straining of the intelligent person's powers of credulity.

As previously stated, cases of this character are more or less abundant, and are to be found scattered throughout psychic literature. William T. Stead mentions a case of this sort in his *Real Ghost Stories.* But, to illustrate my point, and at the same time to render the story credible, I quote a case observed by a trained psychical researcher, a lady known to all readers of psychic literature, an acute observer, and possessing an analytical and scientific mind, as all who have read the lady's book

will testify - I refer to Miss Goodrich-Freer, or "Miss X." 1 Miss X. was sleeping, on the night in question, in historic Hampton Court, and had gone peacefully to sleep, after reading an article in the National Review (on "Shall we Degrade our Standard of Value?"). The account goes on:

"Nearly three hours later I was suddenly awakened from dreamless slumber by the sound of the opening of a door against which some heavy piece of furniture was standing, in, as it seemed, the empty room to my right. I remembered the cat [previously mentioned] and tried to conceive by what kind of 'rampaging' she could contrive to be so noisy. A minute later there followed a 'thud,' apparently on this side of the foldingdoors, and too heavy for even the prize animals of my home circle, not to speak of a mongrel stray, newly adopted and not yet doing credit to her keep. 'A dress fallen in the wardrobe' was my next thought, and I stretched out my hand for the match-box, as a preliminary to inquiry.

"I did not reach the matches. It seemed to me that a detaining hand was laid on mine.² I withdrew it quickly and gazed around into the darkness. Some minutes passed in blackness and silence. I

¹ I quote the following narrative from her *Essays* in *Psychical Research*, p. 33. ² The italics are mine.— H. C.

had the sensation of a 'presence' in the room, and finally, mindful of the tradition that a ghost should be spoken to, I said gently, 'Is anyone there?'

"There was no answer — no sound of any kind; and, returning to the theory of the cat and the fallen dress, though nevertheless so far influenced by the recollection of those detaining fingers as not to attempt to strike a light, I rose and walked around my bed, keeping the right hand on the edge of my bedstead, while, with my left arm extended, I swept the surrounding space. As the room is small, I thus fairly well satisfied myself that it contained nothing unusual."

Miss X. then goes on to relate that, having assured herself that the room contained 'nothing unusual,' she prepared herself to go to sleep again, when "a soft light" began to glow in the darkness. This gradually increased in brightness and extent until a tall, slight woman stood before her, who passed through the room slowly, finally raising her hands to her face in the attitude of prayer, "when quite suddenly the light went out, and I was alone in the darkness."

"I felt that the scene was ended, the curtain down, and had no hesitation in lighting the candle at my side" (p. 34).

Now, there are several interesting points in the

above narrative. Miss X. knew, of course, that Hampton Court has the reputation of being a " haunted house," but that would not in any way affect an investigator of her sane and sceptical turn of mind. It must be remembered that Miss X. spent several weeks in 'B---- House' for the express purposes of studying the phenomena there, on behalf of the Society for Psychical Research, and anyone who reads her book will recognise that she is a calm, cool, clear-headed witness, who regards the phenomena observed as scientific facts, calling for careful, exact observation. But let us suppose that the figure now seen was nothing but the result of expectancy and suggestion; that the figure was no more than a hallucination. I am willing to admit all that, for the moment. The point to which I wish to call particular attention, in the above narrative, is the fact that the fingers were apparently detained by some unseen hand, and that, when the figure had vanished, and the "haunt" ended, the seer experienced no difficulty in reaching the matches and lighting one.

This most interesting phenomenon has been recorded in several stories of haunted houses, and is one well worthy of our careful consideration.¹

¹ Bulwer makes use of this idea in his Haunters and the *Haunted*, but the phenomenon has been observed carefully several times, within the past few years.

326

The first crude theory that an actual disembodied spirit is present, and places his detaining fingers on the seer's hand, will hardly receive a hearing from the scientific world, even that part of the scientific world which accepts telepathy and even spirit-communication as realities. We must, accordingly, find some theory or explanation which will render the facts intelligible, and at the same time not strain too far our ideas or beliefs in the matter. In short, we must seek some theory that will explain the facts in the case, and at the same time depart as little as possible from the "known," *i. e.*, the facts and theories that are already accepted by all psychical researchers.

In order to do so, it will be necessary for us to 'go back,' for a few moments, and consider the phenomena of hypnotism — the reason for this will appear as we proceed.

One of the most common experiments performed in hypnotic exhibitions is the inhibition of the subject's will in some certain line,— the preventing of the subject from saying some word or accomplishing some act he had it in mind to do. In such cases, the operator or hypnotist *suggests* to his subject that he cannot possibly perform some certain act requiring volition (such as stepping over a crack in the board floor, for example), and the subject finds himself utterly unable to do so. Here we have a case of direct inhibition of voluntary movement by hypnotic suggestion. The command is, however, *spoken* by the hypnotist, and the subject hears with his ears in the normal way.

Now, we know that telepathy is a fact in nature - at least, most psychical researchers believe it to be a fact. We know that thoughts and commands can be carried by this process from one mind to another, by other means than through the five senses. Such being the case, it is only natural to suppose that there might be such a thing as telepathic hypnotism in the world — i. e., hypnosis induced by telepathic means instead of by the spoken word. With these thoughts in mind, a number of experiments were tried in France,¹ and with entire success. The subject was sent to sleep by the operator when he was at a distance, the time at which the subject fell into trance corresponding to the time the 'willing' was in progress at the operator's end. There could be no deception in these experiments, since the subject did not know when they were to be tried; and she was certainly not in *collusion* with the operators, who were none others than Prof. Pierre Janet, Mr. F. W. H. Myers, and Mr. Gurney. The experiments must therefore be considered conclusive so far as they go, and seem to establish telepathic

¹ Recorded in Proceedings S. P. R., Vol. IV, pp. 127-88.

hypnotism as a fact in nature, whether understood and explained or not.

Now, if all this is so, it seems highly probable that the *dead* (granting that they exist at all) might also exert some telepathic influence on the minds of the living, as suggested above, and this influence, inasmuch as it is operative at all, is practically hypnotic in character, since it affects the minds of the living, causing them to see and do things they would not see and do otherwise. If the telepathic suggestion from the dead is that the subject perform a certain action, he does so, without knowing the cause of this silent prompting or command. If, on the other hand, the suggestion from the mind of the dead person is to the effect that a certain action be not performed, then the subject is unable to perform that action, without his being aware of the cause of his inability to perform it. In short, just as the subject, in the hypnotic exhibition, is rendered incapable of performing some act of volition because of the operator's suggestion, so, I suggest, may the hand of the 'seer' or subject, in such cases as that quoted above, be rendered unable to reach the matches, or perform some other similar act of volition,- he is prevented from doing so by the telepathic suggestion from the mind of the dead operator. In such cases as the above, in short, the hand is restrained,

not by the fingers of some external phantom, but by a species of *post-mortem telepathic hypnotism*, which inhibits the action, just as the action would be inhibited by a spoken or telepathic suggestion from the living.

I offer the above theory, believing that it contains at least a grain of truth, though I have never seen it worked out in detail before and used as an explanation of the recorded phenomena.

CHAPTER XV

HAUNTED HOUSES AND THEIR CURE

GRANTING that houses surnamed "haunted" exist, it becomes a legitimate part of any interested man's duty to investigate the causes of such haunting — to ascertain, so far as possible, what the nature of the influence about the house may be, and if disagreeable to remove it, or at least attempt to do so. That these influences are at times malign and evil cannot be doubted by anyone who has examined the mass of evidence that exists upon this subject; and it is true that many persons inhabiting haunted houses would give much to be relieved from the influence that hovers about them, and in no wise encourage or like the ghostly visitations of which they are the recipients. It would be unnecessary to adduce any great showing of proof upon this point, since it may be said to apply to all inhabitants of haunted houses, except those few individuals who may be residing in the house, temporarily or permanently, in order to study the phenomena for scientific purposes. It is true that many of these cases turn out to be due, not to supernormal action or influence at all, but to trickery, hallucination, or other purely natural causes; but there are cases on record, beyond a doubt, in which some influence of a psychical sort exists in and about the house; and it is almost certain that this influence is at times evil and malevolent.

One need but call to mind such a case as The Great Amherst Mystery (in which fires were lighted in various parts of the house, the medium was cut and stuck full of pins, etc.), or - if the physical manifestations arouse incredulity --- such a case as that studied by Miss X. and the Marquis of Bute, where, after some weeks' stay in the house, Miss X. was forced to write: "The general tone of things is disquieting. Hitherto, in our first occupation, the phenomena affected one as melancholy, depressing, and perplexing, but now all, quite independently, say the same thing -that the influence is evil and horrible — even poor little Spooks [dog] was never terrified before as she has been since our return here. The worn faces at breakfast are really a dismal sight."¹ The nature of these influences so impressed the Hon. John Harris that he imagined a band of hypnotists were attempting to influence the inmates of the house by hypnotic telepathic suggestion ! 2

¹ The Alleged Haunting of B—— House, p. 210. ² See Inferences from Haunted Houses and Haunted Men.

In many other cases, also, the influence impresses the owners of the house in the same manner; and in nearly every instance would the owner be glad to rid the house of its ghostly occupants. This being the case, the question arises: How may we so rid it? Are there any forces and laws we may put into operation that would drive the haunting intelligences from their home? Can we devise any apparatus or any plan that would be instrumental in driving the influences from the house in question, leaving it free for its fleshly occupants? If so, such a knowledge would be invaluable to the resident of the house, and the plan might at all events be tried — perhaps with complete success.

At all events, I propose to lay before the reader some theories and ideas that I have recently formulated in my own mind, and, wrong and crude as they may be, they may yet, nevertheless, be of some assistance to persons dwelling in houses of the kind under discussion who feel that they are as impotent to cope with the forces and influences into which they are thrown as is the diver who feels about his body the supple arm of the giant octopus.

First, what is the nature of these influences? My subsequent account will have a tendency to settle this point. There are, roughly speaking, four theories. (1) Telepathic influences from the liv-

ing; (2) telepathic influences from the dead; (3) some physical influence or "aura" that exists in and about the house, affecting the minds of those who dwell in it; (4) spirits as entities. It is needless to say that the fourth of these is by far the simplest, and the one which covers and explains all the facts in the most rational and comprehensive manner, if spirits, as such, are ever proved to exist. Although there are certain arguments in favour of all the other theories mentioned. I shall adopt the last-named, for the present purposes, and try it as a working hypothesis.¹ It is true that there is much to be said against this view of the matter and in favour of the other theories --- that I do not deny; indeed there are certain facts going to show that a simple suggestion, if properly delivered, will rid the house once and for all from influences of the sort mentioned above. Aside from regular exorcisms, incantations, sprinkling with holy water, etc., which may be considered "bread pills," and so suggestions, for all practical purposes, there are such cases as the following, given by Miss X. in her Essays in Psychical Research. The passage seems to me to be one of the most interesting and suggestive ever penned.

¹ This does not conflict with the theory advanced in the last chapter, as will presently appear. For our present dis-cussion, theories (2) and (4) may be merged into one.

CURE FOR HAUNTED HOUSES 335

After describing a haunted house of the typical sort, the vain efforts to get rid of the ghost, etc., Miss X. goes on to say:

"Not satisfied with his preliminary researches, he [the investigator] next morning invited his hostess to conduct him once more over the house, already explored from cellar to attic. He had not gone into detail as to the box-room and its contents, and Mrs. Z.'s travelling boxes, the chest containing, let us suppose, the summer clothes and the muslin curtains, the deck chairs for the garden, the extra mats and blankets were all simple enough. The house was new, and there was not the accumulation of rickety tables, chairs without casters, jugs without handles — the melancholy record of time and of housemaids.

"But one piece of spare furniture stood suggestively in the corner of its adoption, a wooden bedstead, an ugly unsanitary anachronism, a splendid text for a suggestion. Its origin was obscure, vague, easily represented as mysterious.

"' Clear out this room,' prescribed the specialist, ' clean it, whitewash it, put back all else, if you will, but *burn that bedstead!*'

"It may have been a fetish, a *point de repère* of evil, filled with the germs of thought-transference, the microbe misnamed 'psychometric,' the bacilli

336 THE COMING SCIENCE

of astral and elemental forms; or the order may have been merely a suggestion, a bread pill; but when the bedstead was burnt, that ghost was laid."

In a case such as the above, there can be no question that the cure was brought about merely by suggestion. But there would appear to be numerous other cases that cannot be thus explained away - cases, in fact, in which the ghost refused to depart because of any such measures, but clung to the house with grim tenacity, and ultimately drove the earthly tenants from the doors! This can hardly be ascribed to suggestion, nor, it seems to me, to any thought-transference theory, and would seem to indicate that some force or influence is operative which is sufficiently independent of the minds of those in the house to defy and over-rule them. Readers of Bulwer Lytton's powerful story, The House and the Brain, will recall the feeling of intense, masterful Will that the visitant encountered; and, although this story is, of course, a work of fiction, it is more or less closely paralleled by other cases of a similar type — some of which are not as yet in print, but which I have had the opportunity to read. Such being the case, the question arises: How can we ascertain what these intelligences are? and, if discovered, how can we

cope with them? These are the problems we must now discuss.

I would begin by saying, once again, that I shall, for the sake of argument, assume that the intelligences manifesting in haunted houses are in reality spirits of the departed, and use that as a working hypothesis. The problem for us to solve, then, is this: Can we in any way come into touch with these intelligences? and, if so, how?

Students of psychic matters will remember that efforts have been made in this direction before. Thus, the clairvoyant "Jane" was directed to the haunted Willington Mill in her clairvoyant trance, and described the influences about the house and the spirits that were said to haunt it. These descriptions agreed to a certain extent with the descriptions of those who had lived or spent certain nights in the haunted mill.¹ Again, automatic writing, crystal-gazing, séances, etc., were held in the haunted B---- House, but nothing conclusive was arrived at. Certainly the investigators were on the "right track" in that case, however. Just such experiments may be expected to throw a flood of light on cases of this kind, especially in view of the fact that automatic writing,

¹ For details of this, see *Proceedings* S. P. R., Vol. VII, pp. 54, 82-4, 86, 87, and *Journal* S. P. R., Vol. V, pp. 331-52.

etc., is occasionally obtained, and only obtained, in certain so-called haunted houses, as I happen to know. This is a most significant fact, and one well worthy of further inquiry and investigation.

I now come to my theory of the manner for clearing haunted houses of the influences that are supposed to remain within them. Certain it is that the influences, whatever they are, cannot be dealt with upon material lines. The man who goes to a haunted house with a watch-dog and a loaded revolver is not the sort of investigator who is likely to reveal much of interest to science! No: the intelligences or influences must be dealt with upon psychical lines; they must be, so to speak, beaten at their own game. Methods such as crystalgazing, automatic writing, etc., are very useful as indicating what the influences are in any certain house; they are "methods of diagnosis." But when we have ascertained that a certain spirit is haunting a house, e. g., what are we to do to make it leave that house? As before stated, material agencies would be of no use; we must resort to psychical influences. A medium must be employed - one who has around him or her a number of tried and trusted controls or "guides," in whom he or she can place the strictest reliance. With the aid of such a medium, might we not, through his or her controls or guides, come into contact with

338

CURE FOR HAUNTED HOUSES 339

the intelligences invading the house in question, and, through them, carry on a warfare with the unruly intelligences manifesting within the house? The suggestion is at least plausible, and the experiment worth trying. Nay, more, it has been tried, and with success. Some time ago, I had sent to me a long letter by Georgia Gladys Cooley - a medium in whom I have perfect confidence, so far as honesty and reliability go, and who has had a number of most remarkable experiences, the following being one of these. At my request she wrote out this account and sent it to me. I herewith present it to my readers, feeling assured that it will prove of great interest - no matter whether the statements are accepted as true, or not. They at least afford room for thought, and give us a clue for the direction in which to look for more light in the investigation of this exceedingly dark. and complex problem.

"Something over fifteen years ago, an experience of rather an extraordinary nature came my way.

"In the city of Stockton, Cal., where I was lecturing at the time, a lady came to me, claiming to be greatly annoyed by hearing a voice almost constantly talking to her. The voice purported to be that of her first husband, who had passed from earth several years before. At times it spoke in most endearing tones, and again quite severely ---presuming to be interested in all her earthly affairs and quite dictatorial regarding them. It spoke of relatives gone on, and of many things in her past life which led her to believe, at times, that it might be the voice of her departed companion; at other times she felt that it could not be he.

"The attendance of this queer visitor grew more constant as the days passed, and became a great source of annoyance, as it interfered with the woman's rest - the voice often keeping up its chattering the greater part of the night. The lady, who knew nothing of spiritualism or the occult, was sorely upset. On looking into her case, I found it was not imagination nor hallucination on her part, as I discovered an individual in spirit form hovering near her. He was low in stature, crass in appearance, and had an exceedingly low forehead, covered with dark and coarse looking hair. Heavy, dark eyebrows, which met, added to his unprepossessing appearance. There were days when he would scold her for being over-liberal, and perhaps the next day he would call her stingy, etc.

"I could not now relate a hundredth part of what he did and said in order to annoy this good woman; and, in time, a new phase of his actions manifested itself. The lady felt at times a sen-

sation as of someone pinching her, and soon thereafter a bruised spot would appear upon the flesh. I must not forget to state that the description of this man, as given by myself, did not tally with that of the departed husband. While living, her husband had always been very good and kind to her.

"It was an impostor, endeavouring to pass himself off as the departed one. He was low in spiritual development, as well as in intellectual growth, and seemed bent upon mischief. With the help of wise and generous loved ones of the higher spheres, we undertook to rid the lady of her annoying and misleading visitor, but found it by no means an easy task. He was cynical at first, then grew rebellious, and refused to listen to pleading or kindness. He was hard to awaken spiritually, and it was trying indeed; cunning and shrewdness were fully developed, and altogether it was a sad yet interesting case that lay before us.

"When he refused to listen to all kindness and pleading, force was called into play. I shall state immediately how this was done. I cannot go into detail now, but will give the essentials of the case, which is of great interest, no matter how we choose to interpret it.

"Shortly after retiring one night, and having had one nap, I was awakened by some strange vibrating force, and saw several forms in the room, as though they had just passed through the door. Two were leading or pulling by either arm the form of the man that had become so familiar to me; and directly back of the form was a third spirit known to me as Uncle Eli, who was making passes over the head or back of the head of the spirit that was being dragged in. They had hypnotised him, and by force pulled him from the house!

"A pallet was improvised in the corner of the room, and the poor, helpless fellow placed upon it. I knew then that a victory had been won. I watched the good friends work on him for a time, and then fell asleep — to be awakened in the morning to see the same form quietly lying where he had been placed. I was informed later in the day that the lady had had her first full night's sleep in three months.

"From that night on she was little disturbed the visitor returning but a few times, and upon each occasion was taken away immediately. He learned to dislike me very much, feeling that I was in some way responsible for his losing something he felt it his right to possess. He often came to me with threats, trying hard to intimidate me, but I was too well guarded to fear him. I felt that in time he would understand that I was his friend.

" In his most furious states, he would forbid my

entering the lady's house, which recalls to my mind one strange and almost weird experience I had in this connection.

"I had an appointment with the lady one evening, and was on my way to her home. When about two blocks from her house, I saw the Salvation Army people holding a meeting. I felt impelled to stop and listen to their remarks, and was greatly impressed with their sincerity. When the time came to pass the tambourine for offerings, a familiar voice said to me, ' Drop a dollar in,' and I followed the suggestion. I turned away and crossed the street, when suddenly a man appeared before me, put his hand to my throat, and said: ' If you go to that house, I'll kill you.' Until that moment I thought it was a man of flesh, but instantly everything was clear to me. I drew back in a most positive manner, and declared: 'I am going, and you will not harm me!' At this the figure passed from sight, and I saw it no more until I stepped up to the door, when he followed me in, took up a position at my right, and stood there, apparently listening to everything I said. He made several threatening remarks, which I did not heed.

"After I had been in the house a short time, I was impressed to form a small circle, which consisted of the lady in question, her husband, Mr.

Cooley, and myself. To our surprise the lady was influenced by someone who went through the performance of playing a cornet; this influence lasted about ten minutes. I then became very clairvoyant, seeing many familiar spirits and a great many unfamiliar ones. Benches were around the entire room, next the wall, and all were filled with (what seemed to me) real human beings - my judgment leading me to believe of rather a low type, as the clothing of some of the men was torn almost to tatters. Their hair was dishevelled, and one man had a large, ugly scar over his right cheek. The annoving friend was still at my right.

"I was next entranced by Uncle Eli, who gave a very interesting and encouraging talk, in which he told a great many things, of which I was entirely, ignorant - one in particular I learned of. He addressed the lady I had gone to see, and stated: 'Not only yourself but this house is obsessed by a class of poor, unfortunate, discarnate spirits, and if it were not for your law, we should advise that it be burned to the ground. When you bought this house, you thought you got a great bargain, but you got much more than you bargained for. You have become sensitive and receptive to outside influences, and consequently are affected by these unseen inhabitants: but fear not, no harm shall come to you, as we have brought help this even-

ing, and many of them will be released from their imprisoned condition.'

"He then withdrew, and instantly I was controlled by a Salvation Army girl who gave the name, I believe, of Sarah or Sadie Jones. She poured forth a regular Salvation Army lecture, imploring the poor souls to go with her, etc., reaching out her hands as in the act of drawing something over to her, encouraging them for their bravery, and for an hour worked as any true woman of her rank can work, sometimes gently yet positively upbraiding someone for daring to hold another back; finally turning to the mortals and assuring them that all was well, and that those who were to go with her would be on another plane, with new interests and surroundings, never again to return to their earth-bound state.

"She then gave the lady some advice as to the care of herself and her house and withdrew, leaving a most hallowed and beautiful influence behind her.

"During the entire evening I was a silent witness, having seen and heard all, and seemed like a second person, distinctly outside my own body, seeing it used by those who manipulated it for the purpose of bringing peace and joy to others.

"I was informed by the lady that the house, though large, clean, and new in appearance, had been purchased by her and moved to its present locality. It had, she said, been used as a saloon for many years, before being altered and partly rebuilt, which no doubt accounted for its unseen inhabitants, they having been frequenters of the haunt in all probability.

"Uncle Eli also informed me that it was he who impressed me to stop and listen to the Salvation Army, as well as advised me to help them, as it drew their attention to me, and in return they had aided him, as he felt that they were the only class who could readily reach these poor unfortunates. Thus we learned that each class of spirits has their work to do, and 'in unison there is strength.'

"It was, indeed, a great experience for me, one which money cannot buy, as the knowledge derived therefrom has been of great value. Perhaps there will be many opinions expressed as to the cause of such an experience, the nature of the influence, etc.— each one having his own theory, as he has a right to — but I wish it remembered that, while I am a psychic, I think I am a rational being, with an average amount of intelligence, not given to imagination, but, like the Missourian, being practical, I must be shown - as, indeed, I was shown.

"Yours for truth and progress,

"GEORGIA GLADYS COOLEY."

The above account speaks for itself, and I cannot add anything to it that would be half so interesting as the account itself. It may appear fanciful to some of my readers, but when we are in the realm of spirit who shall say where the "possible" ends and the "impossible" begins? All theories apart, however, my object will have been attained if the above article serves to direct reflection and experiment into a channel hitherto all but neglected, but which is, none the less, one of the most interesting in the whole province of psychic research.

CHAPTER XVI

PREMONITIONS: FACTS AND THEORIES

THERE is always a charm and a fascination about the future that will continue to attract the minds of men so long as the world shall last; so long as it remains hidden from man, a mysterious and unknown region, so long will man endeavour to pierce it by every means in his power. This desire to peer into the unknown is perfectly intelligible, and is only another expression of that inquiring spirit which has enabled man to know as much as he does of the physical world in which he lives. There is a semi-formulated idea in the minds of many persons that it is in some way harmful or wrong to endeavour to pierce the future, since it is " one of God's mysteries," and hence too sacred to touch or inquire into! I need hardly say that it was this same spirit — the idea that it was wicked to inquire too closely into the workings of the universe - that hindered the growth of science and all true progress, and is a perfectly unreasonable attitude to take, in view of what has occurred in the past. For we are endowed with intellect and senses provided for the express purpose of delving as deeply into nature as it may 348

PREMONITIONS

be our good fortune to penetrate; and there is no reason to suppose — nothing to indicate — that any one portion of the universe (mental, spiritual, or physical) should be investigated and inquired into and another neglected. It may be quite impossible to see into the future,— that much may be granted, for the sake of argument,— but that does not affect the question of the legitimacy of inquiring into it. Granted that there is here a legitimate field of inquiry, therefore, let us turn our attention to the facts, and see whether there is any real evidence that man ever has pierced the veil; if so, to what extent; and again, if so, how is such foresight to be explained?

There are many interesting cases that might be cited in this connection, all illustrative of the faculty of foresight, but we must content ourselves in this chapter with a few by way of illustration, as it would be quite impossible to prove any such thing as a faculty of this kind in a work of this general character. The following case is a good example of the type of spontaneous case we are apt to meet with in inquiries such as ours:

"I was staying with a friend, a clergyman, in South Carnarvonshire in March, 1877 I think, and dreamt that I was one of a shooting party. One of the party shot a woodcock. When I awoke I was impressed with a very vivid recollection of my dream and its locality, which, as it appeared to me, I had never seen before.

"I had no occasion to mention the dream until the afternoon, when the following circumstance occurred. Returning with my friend from a long walk, in the neighbourhood of Madym Park, we chanced to fall in with the squire's gamekeeper carrying his gun on his shoulder. My friend with the keeper walked on some fifty or sixty yards in advance of me.

"They presently turned off the road at right angles, and disappeared from my view. When I came to the spot where they had left the road, I saw them following a path through a dingle. Though I had never been in the neighbourhood before, I felt that the scene was familiar to me. I stopped to collect my thoughts and reconcile the inconsistency. In a moment it flashed upon me that this was the scene of my last night's dream. I had a strange feeling of expectation; the identity of the scene became every moment clearer and clearer; my eyes fell upon the exact spot where the woodcock of my dream had risen; I was certain the event of my dream would be inevitably re-enacted. I felt I must speak, and there was not a moment to lose. I shouted to my friend: 'Look

out. I dreamt I shot a woodcock here last night.' My friend turned and replied, 'Did you?'

"The words were hardly out of his mouth and the gun off the keeper's shoulder (I was still intently gazing at the very foot of ground), when up gets a woodcock — the woodcock of my dream — and falls to the keeper's gun — a capital snap shot. We were all not a little astonished, the keeper, moreover, remarking that he thought all the woodcocks had left the country some weeks before.

> "I am, sir, etc., "THOMAS WABREN TREVOR."

In reply to further inquiries, Mr. Trevor stated that he had never had any similar experience in his life, and that woodcocks were rare at the time the dream was fulfilled. The Rev. Cannon Johnson, in a letter to Mr. Trevor, corroborated the incident in full.¹

This case is very interesting, as, although it was a dream (and so open to the old objection that incidents of the kind occur frequently which are not fulfilled), it certainly did not happen frequently to this particular man; in fact, he explicitly states that he had never before experienced anything of

¹ See Proceedings S. P. R., Vol. V, pp. 316-17.

the kind. The old and generally absurd objection of 'pseudo-presentiment'-i.e., a mere illusion on the part of the percipient that he had experienced such-and-such an event --- would not hold good in this case, since the coming event was predicted again, just before its occurrence, and corroborated by another witness. Assuming the truth of the witnesses, it is hard to see how chance alone could account for such a case as this --- a sample case, merely, and one much inferior, in strength and detail, to many that might be cited, hundreds and thousands of such cases of both sleeping and waking premonitions existing, premonitions foreshadowing all kinds of future events, and seeming to prove conclusively that what we know as the future may (under certain circumstances and conditions of which we at present know nothing) penetrate into the future and foresee scenes and events that are about to happen. This is not the place to attempt any defence of this position; I shall assume that it is possible and in fact occasionally an actuality, and so shall proceed to the interesting question that must be raised at this point; viz., How are we to explain such facts? If it be possible to see into the future in this manner, why not make a fortune over night in stocks? In any case, what are the processes involved, what laws are put into operation?

352

I shall not enter into the question of why it is that persons possessing this peculiar power do not make use of it to make a fortune over night, as suggested, for the reason that those who advance this suggestion do not know what they are talking about, or in any way understand the problem. Visions of this kind, apparently seeing into the future, are not to be summoned at will, but occur - when they occur at all - spontaneously, and not in accord with any special laws or rules with which we are familiar. They merely crop up spontaneously, and cannot be summoned at will. As M. Flammarion insisted, there are two methods of investigation in all scientific problems: that of observation and that of experiment. Almost all psychic problems have to be investigated by the former of these two methods; we have to observe them as we may, and we cannot control them at will. Such being the case, we can very easily see why it is that persons cannot make fortunes by the aid of their foresight; such things do not act in any such concise and systematic manner at all, and may occur but once in the individual's life, if then.

But when we come to the question of how such things can be — the *modus operandi* involved that is a legitimate, but a most difficult question to answer. At once the question rises in the mind:

354 THE COMING SCIENCE

Can it be possible that the veil of the future can really be torn, so that it actually becomes the present and the real to the onlooker? How can such things be? Or is there not rather some illusion, which, if discovered, would reveal to us the simple explanation of all such facts, and explain them in a perfectly intelligible and natural manner?

If there were but a few facts of this character in existence, to weigh against all human experience, that would be, doubtless, the most rational ground to take; but when we find hundreds of facts of this character — all detailed and apparently recorded with care — it is more difficult to dismiss them in that summary manner, and in fact one finds oneself gradually becoming more and more convinced that some such process is in actual existence, when we come to weigh and measure the evidence in its favour. But if the fact can once be established, if one single fact can be shown to be due to some cause other than chance, what a recasting of our views, what a remoulding of science would be necessary in order to fit it into our present scheme of the universe!

Now let us see, for the moment, if some conceivable explanation of such facts might not be possible. Granting, for the sake of argument, that genuine premonitions sometimes occur, how are we to account for them? The fact of seeing into the future is such an apparent impossibility that any explanation of the facts would seem at first sight utterly hopeless; and yet such might not be the case. Let us see how far certain legitimate speculations might carry us in this explanatory theory.

First of all, it must be pointed out that there is some amount of foresight or 'premonition' in our ordinary normal life; we are enabled to foresee certain events that are about to happen; that, for example, the lamp is about to fall, or that our pet dog is about to die. Here it is clear that we see further than the object or the animal, though (in the latter case) he is himself the personality involved. Again, we can frequently foresee how certain lines of action would bring certain definite results, and we can frequently tell, almost exactly, how any event is going to terminate. If we see two men engaging in a wordy war, we feel assured that they will ultimately end up with blows; if we see a man walking down the street, we know that he will eventually reach the street corner, and if we know (what he does not) that there is a powerful wind blowing down the street, we can predict with some degree of certainty that his hat will be blown off as soon as he arrives at that corner and the wind strikes him. Or again, to use an old example, if we see a spider walking across the table, we can predict with a fair degree of certainty that when the

spider reaches the edge of the table he will fall off. Yet the spider is quite unaware of any such danger awaiting him. In all the above examples, it will be seen that greater knowledge of the surroundings or environment, mental or physical, of the recipient of the disaster enables the onlooker to foresee the impending danger, and, if he chooses, to save such recipient from it. A larger mental grasp of circumstances and a clear view of tendencies will frequently enable one to foresee what is quite invisible to another. And might we not suggest that, by analogy, some of our friends in a spiritual world, seeing the tendencies of certain of our actions more clearly than we, would warn us, by dream or telepathic action, and so reveal to us what we should never otherwise perceive? Having a clearer and larger grasp of our environment than we, would it not be quite possible for them to foresee, and so to warn us of impending dangers in this manner?

Again, there is another whole set of phenomena of this character which might be explained on other lines altogether. A physician can foresee certain tendencies in himself and in others which would be invisible to the average man, who has not been trained in these special lines. He can foretell what will happen far in advance of the actual event,— what is likely to happen to any individual,

---- and so, in the broader sense, this might be termed ' premonitory.' In like manner, it is probable that our own subconscious mind can foresee bodily states far more readily than can our ordinary wake-a-day consciousness, and so apprise us in advance of oncoming disastrous symptoms. This knowledge might be dramatised and symbolised in a dream; so again, the appearance might be suggestive of the supernormal, though, it will be seen, it is not strictly so. Foretelling deaths, etc., may be due to this cause. But at all events it will be apparent that none of the explanations so far advanced will explain the detailed incident --- such as that recorded above — in which the woodcock was shot, as foreseen. How are we to account for such a case as that?

Let it be admitted that we cannot explain it at all, in the present state of our knowledge. We can but guess at the *modus operandi* involved, and doubtless very ineffectually. It is not to be believed that spirits (granting that they exist, and that they can foresee tendencies and coming events with greater foresight than do we, because of their clearer and more extended outlook, so to speak) still, it is not to be believed that they can really foresee all the details of any coming event, as that would be tantamount to saying that the event itself was planned out in advance and merely enacted at the proper moment — a form of fatalism. We might conceive this, of course, but it would not be proof. In lieu of any better theory, however, let us pursue this line of thought for the moment, and see whither we are led. I quote from a previous article of mine on "Omar Khayyam and Psychical Research."¹ In part it runs as follows:

. . That Omar was a fatalist goes with-66 out saying, the idea of extreme fatalism running throughout his verse and rendering it at times almost despairing in tone, at others rendering it indignant or scornful. Fatalism is a different thing from the modern philosophical doctrine of determinism, though both are opposed to freewill. We have, apparently, of course, free choice in all our actions; that is, we are enabled to do what we want to do; but determinism says that we are not enabled to do anything of the kind. The fact that we can *apparently* do so is mere illusion, and that our action is in every case determined by our previous actions, environment, mode of life and external and internal influences and causes; so that, when any action is performed, it is the result of these influences and their necessary result; i. e., we are never enabled to choose freely, or perform any action that is other than the direct and in-

1 Journal of the A. S. P. R., July, 1907.

evitable result of previous actions, thoughts and environment. If we could get a large enough mental perception and grasp, as it were, of such forces acting upon ourselves, we could see how it is that in all cases our action is necessitated, and not the result of deliberate choice or free will, though the illusion of free will would always be present. This differs from fatalism, as I understand it, in that it does not necessitate the planning or intervention of any external mind or Deity other than the mental and physical forces of the universe; while fatalism supposes an external mind which has planned everything from the beginning, and each action and event as it occurs is consequently inevitable and has been planned from the very creation of things. Doubtless such thoughts prompted Omar to write Verse 73:

- " With Earth's first Clay They did the Last Man knead,
- And there of the Last Harvest sow'd the Seed: And the first Morning of Creation wrote

What the Last Dawn of Reckoning shall read.'

"This idea that the universe is planned out, as it were, in advance is somewhat different from the doctrine which maintains that everything has, in a sense, actually happened,— we merely perceiv-

ing such actions as we reach certain states or stages in our journey through life; that is, all future events are actually existent at present, but the reason that we do not perceive them is that we have not yet arrived at the point of view that enables us to perceive them, --- nor will we until the appro-priate time has arrived. Perhaps we may be enabled to grasp this idea a little more fully when we consider the following simple analogy. Let us suppose ourselves on the hind platform of the rear car of a train which is travelling at a more or less rapid rate of speed. As the train moves, we perceive, at either side of us, altered scenery, and the country seems suddenly to be changed, ---- new scenes coming into view and others vanishing. But it will be seen that in this case the landscape newly perceived is not actually *created*; it does not come into being at the moment we perceived it; it has always existed, and the reason why it has not existed for us before is that we have not been in a position to perceive it until that moment; and when the landscape recedes in the distance, it is not annihilated, but remains unaltered; but for us it has vanished ---for the reason that we are no longer in a position to perceive it. Thus it is that events may perhaps exist in some real or " noumenal " world which are only perceived by us, as phenomena, at certain definite stages or times for their perception."

Such a conception of the universe would at least enable us to understand much and make clear to us the apparent facts of so-called premonition. There is something awesome and stupendous in this conception of the cosmos, and perhaps I cannot do better, by way of illustration of this, than to quote a page from Mr. Mitchell's charming little story, Amos Judd, where he vividly portrays for us the all-pervading intelligence and the omnipotence of the moral force that rules the universe, and man's impotence when opposed to it. Under the mask of fiction, we find one of the most striking conceptions of fatalism known to me. Amos, the hero of the story, being gifted with the unwelcome capacity of seeing into the future, had predicted that Mr. Cabot was to perform certain acts the next day at a certain time. Just at the time specified, Mr. Cabot found himself doing (quite naturally, apparently) those very acts! This calls forth conscious-resistance on his part,- the result being a dramatic picture of a one-sided duel between the mind of man and that of some all-pervading fate. But I leave the author to tell his own tale.

". . . Mr. Cabot, as he strode rapidly toward the village, experienced an elasticity and exhilaration that recalled his younger days. He felt

more like dancing or climbing trees than plodding sedately along a turnpike. With a quick, youthful step he ascended the gentle incline that led to the Common, and if a stranger had been called upon to guess at the gentleman's age as he walked jauntily into the village with head erect, swinging his cane, he would more likely have said thirty years than sixty. And if the stranger had watched him for another three minutes he would have modified his guess, and not only have given him credit for his full age, but might have suspected either an excessive fatigue or a mild intemperance. For Mr. Cabot, during his short walk through Daleford Village, experienced a series of sensations so novel and so crushing that he never, in his inner self, recovered completely from the shock.

"Instead of keeping along the sidewalk to the right and going to the post-office according to his custom, he crossed the muddy road and took the gravel walk that skirted the Common. It seemed a natural course, and he failed to realise, until he had done it, that he was going out of his way. Now he must cross the road again when opposite the store. When opposite the store, however, instead of crossing over, he kept along as he had started. Then he stopped, as if to turn,— but his hesitation was for a second only. Again he went ahead, along the same path, by the side of the

Common. It was then that Mr. Cabot felt a mild but unpleasant thrill creep upward along his spine and through his hair. This was caused by a startling suspicion that his movements were not in obedience to his own will. A moment later it became a conviction. The consciousness brought the cold sweat to his brow, but he was too strong a man, too clear headed and determined, to lose his bearings without a struggle or without a definite reason. With all the force of his nature he stopped once more to decide it, then and there: and again he started forward. An indefinable, all-pervading force, gentle but immeasurably stronger than himself, was exerting an intangible pressure, and never in his recollection had he felt so powerless, so weak, so completely at the mercy of something that was no part of himself; yet, while amazed and impressed beyond his own belief, he suffered no obscurity of intellect. The first surprise over, he was more puzzled than terrified, more irritated than resigned.

"For nearly a hundred yards he walked on, impelled by he knew not what; then, with deliberate resolution, he stopped, clutched the wooden railing at his side, and held it with an iron grip. As he did so, the clock in the belfry of the Unitarian Church across the road began striking twelve. He raised his eyes and, recalling the prophecy of Amos, he bit his lip, and his head reeled as in a dream. 'To-morrow, as the clock strikes twelve, you will be standing in front of the Unitarian Church, looking up at it.' Each stroke of the bell — and no bell ever sounded so loud — vibrated through every nerve of his being. It was harsh, exultant, almost threatening, and his brain in a numb, dull way seemed to quiver beneath the blows. Yet, up there, about the white belfry, pigeons strutted along the moulding, cooing, quarrelsome, and important, like any other pigeons. And the sunlight was even brighter than usual; the sky bluer and more dazzling. The tall spire, from the moving clouds behind it, seemed like a huge ship, sailing forward and upward as if he and it were floating to a different world.

"Still holding fast to the fence, he drew the other hand sharply across his eyes to rally his wavering senses. The big elms towered serenely above him, their leaves rustling like a countless chorus in the summer breeze. Opposite, the row of old-fashioned New England houses stood calmly in their places, self-possessed, with no sign of agitation. The world, to their knowledge, had undergone no sudden changes within the last five minutes. It must have been a delusion: a little collapse of the nerves, perhaps. So many things can affect the brain: any doctor could easily explain it! He would rest a minute, then return.

"As he made this resolve, his left hand, like a treacherous servant, quietly relaxed its hold and he started off, not toward his home, but forward,--continuing his journey. He now realised that the force which impelled him, although gentle and seemingly not hostile in purpose, was so much stronger than himself that resistance was useless. During the next three minutes, as he walked mechanically along the sidewalk by the Common, his brain was nervously active in an effort to arrive at some solution of this erratic business; some sensible solution that was based either on science or on common-sense. But that solace was denied him. The more he thought the less he knew. No previous experience of his own, and no authenticated experience of anyone else, at least of which he had ever heard, could he summon to assist him. When opposite the house of Silas Farnam, he turned and left the sidewalk, and noticed with an irresponsible interest as he crossed the road that with no care of his own he avoided the puddles and selected for his feet the drier places. This was another surprise, for he took no thought of his steps; and the discovery added to the overwhelming sense of helplessness that was taking possession of him. With no volition of his own he also avoided the wet grass between the road and the gravel walk. He next found himself in front of Silas Farnam's gate and

his hand reached forth to open it. It was another mild surprise when his hand, like a conscious thing, tried the wrong side of the little gate, then felt about for the latch. The legs, over which he had ceased to have direction, carried him along the narrow brick walk, and one of them lifted him upon the granite doorstep.

"Once more he resolved, calmly and with a serious determination, that this humiliating comedy should go no further. He would turn about and go home without entering the house. It would be well for Amos to know that an old lawyer of sixty was composed of different material from the impressionable enthusiast of twenty-seven. While making this resolve the soles of his shoes were drawing themselves across the iron scraper; then he saw his hand rise slowly toward the old-fashioned knocker and, with three taps, announce his presence. A huge fly dozing on the knocker flew off and lit again upon the panel of the door. As it adjusted its wings and drew a pair of front legs over the front of its head Mr. Cabot wondered if, at the creation of the world, it was foreordained that this insect should occupy that identical spot at a specified moment of a certain day, and execute this trivial performance. If so, what a rôle humanity was playing! The door opened and Mrs. Farnam, with a smiling face, stood before him.

"' How do you do, Mr. Cabot? Won't you step in?'

"As he opened his lips to decline, he entered the little hallway, was shown into the parlour, and sat in a horse-hair rocking chair, in which he waited for Mrs. Farnam to call her husband. When the husband came, Mr. Cabot stated his business and found that he was once more dependent upon his own volition. He could rise, walk to the window, say what he wished, and sit down again when he desired."

So, for him, ended the most remarkable experience of his life.

Before such an all-pervading, all-powerful volition as this we pause, awestruck. Is it conceivable that this universe is planned out and prearranged in any such manner? It seems hardly credible; and yet, how otherwise are we to account for those obstinate facts that keep coming before our attention, demanding an explanation, no matter what views we may care to hold of the universe, or their possibility? Premonitions are the most baffling of all psychic phenomena, and, if ever established scientifically and accepted as actual facts, they will necessitate more recasting of old theories and conceptions than any other character of phenomena whatever. In conclusion I can only repeat a wise saying, which is not without its sense of humour and which might be fitly quoted in this place. Two philosophers were arguing about the possibility of a certain fact — one from experimental evidence, the other from \acute{a} priori conceptions. The latter had wound up his argument with a very self-satisfying proof. "So you see it's an utter *impossibility*, don't you?" To which his friend wisely replied: "My dear sir, I never said it was possible, I said it was a fact!" Might we not apply this to premonitions?

CHAPTER XVII

EUSAPIA PALADINO AND THE PHYSICAL PHENOMENA OF SPIRITUALISM

OR the benefit of those of my readers who may not have read many books upon psychic subjects I may state that Eusapia Paladino is the name of a woman, living in Naples, Italy, who is, it is claimed, a most remarkable "physical medium;" *i.e.*, that there occur in her presence movements of objects without contact, tips of, and raps upon, tables, playing of musical instruments without any human hands, and a number of other manifestations, still more remarkable, which I shall outline in brief immediately. I have, until now, withheld from mentioning the physical phenomena, for the reason that they are so much more open to doubt and suspicion than are the mental or psychical phenomena proper, --- which are far more numerous and more easily proved than are the physical facts. So many mediums have been detected in fraud, in the production of physical phenomena, that, whenever they occur, there is immediately a suspicion, in the minds of most persons, that fraud was in some manner connected with the production of the phenomena; and this applies also to the medium under

discussion. It is well known to all the scientists and other persons who investigate Eusapia that she will deceive whenever she can do so; and that unless fraud has been rendered impossible, she will invariably produce the phenomena by fraudulent means. If the statements of those scientists who have carefully investigated this medium are to be implicitly relied upon, there are very good reasons why Eusapia should resort to fraud whenever she can. It is asserted that whenever phenomena of the kind under discussion are produced in a genuine manner, the medium is left more or less exhausted; there is a certain nervous 'tiredness,' which follows upon the production of phenomena of this sort. It is only natural to suppose that, if the medium could obtain the same results by fraudulent means, she would do so, and thus save herself the consequent fatigue. This, it is asserted, is the chief reason why Eusapia (and kindred mediums) resort to cheating, and, whether true or not, the explanation is at least conceivable.

Let us now turn to a consideration of the phenomena themselves, that are alleged to occur in the presence of this medium. I shall quote from the various reports concerning her mediumship that have been brought in, reserving any remarks or discussion of the results until afterwards. I quote a typical Report, taken from

PHENOMENA OF SPIRITUALISM 371

M. Flammarion's fascinating book, *Mysterious Psychic Forces*, where, after describing several remarkable manifestations, he goes on to say:

"A round centre table, placed at my right, comes forward without contact towards the table, always in full light, be it understood, as if it would like to climb up on it, and falls down. Nobody has moved aside or approached the curtain, and no explanation of this movement can be given. The medium has not yet entered into a trance and continues to take part in the conversation.

"Five raps in the table indicate, according to a convention arranged by the medium, that the unknown cause asks for less light. This is always annoying. . . . The candles are blown out, the lamp turned down, but the light is strong enough for us to see very distinctly everything that takes place in the room. The round table, which I had lifted and set aside, approaches the table and several times tries to climb up on it. I lean upon it in order to keep it down, but I experience an elastic resistance and am unable to do so. The free edge of the round table places itself on the edge of the rectangular table, but, hindered by its triangular foot, it does not succeed in clearing itself sufficiently to climb upon it. Since I am holding the medium, I ascertain that she makes no effort of the kind that would be needed for this style of performance.

"The curtain swells out and approaches my face. It is at this moment that the medium falls into a trance. She utters sighs and lamentations and only speaks now in the third person, saying that she is John King. . . . Five new raps ask for still less light, and the lamp is almost completely turned down, but not extinguished. The eyes, growing accustomed to the clare-obscure, still distinguish pretty well what is taking place.

"The curtain swells out again, and I feel that I am touched on the shoulder, through the stuff of the curtain, as if by a closed fist. The chair in the cabinet, upon which are placed the music-box and the bell, is violently shaken, and the objects fall to the floor. The medium asks again for less light, and a red photographic lantern is placed upon the piano, and the light of the lamp completely extinguished. The control is rigorously kept up, the medium agreeing to it with the greatest docility.

"For about a minute the music-box plays intermittent airs behind the curtain, as if it were turned by some hand. The curtain moves forward again toward me, and a rather strong hand seizes my arm. I immediately reach forward to seize the hand, but I grasp only the empty air. I then press the two legs of the medium between mine and

372

I take her left hand in my right. On the other side, her right hand is firmly held in the left hand of M. de Fontenay. Then Eusapia brings the hand of the last named toward my cheek and imitates upon the cheek, with the finger of M. de Fontenay, the movement of a little revolving crank or handle. The music-box, which has one of these handles, plays at the same time behind the curtain in perfect synchronism. The instant that Eusapia's hand stops, the music stops: all the movements correspond, just as in the Morse telegraph system. We all amused ourselves with this. The thing was tried several times in succession, and every time the playing of the finger tallied with the playing of the music.

"I feel several touches on the back and on the side. M. de Fontenay receives a hard slap on the back that everybody hears. A hand passes through my hair. The chair of M. de Fontenay is violently pulled, and a few moments afterwards he cries, 'I see the silhouette of a man passing between M. Flammarion and me, above the table, shutting out the red light!'

"This thing is repeated several times. I do not myself succeed in seeing the silhouette. I then propose to M. de Fontenay that I take his place, for in that case, I should be likely to see it also. I soon distinctly perceive a dim silhouette passing before the red lantern, but do not recognise any precise form. It is only an opaque shadow (the profile of a man) which advances as far as the light and retires. In a moment, Eusapia says there is someone behind the curtain. After a slight pause she adds: 'There is a man by your side, on the right; he has a great soft, forked beard.' I ask if I may touch this beard. In fact. while lifting my hand, I feel rather a soft beard brushing against it. . . .

"The little round table, placed outside the cabinet, at the left of the medium, approaches the table, climbs clear up on it and lies across it. The guitar in the cabinet is heard moving about and giving out sounds. The curtain is puffed out, and the guitar is brought upon the table, resting upon the shoulder of M. de Fontenay. It is then laid upon the table, the large end towards the medium. Then it rises and moves over the heads of the company without touching them. It gives forth several sounds. The phenomenon lasts about fifteen seconds. It can readily be seen that the guitar is floating in the air, and the reflection of the red lamp glides over its shining surface. A rather bright gleam, pear-shaped, is seen on the ceiling in the other corner of the room. . . . John is spoken to as if he existed, as if it was he whose head we perceived in silhouette; he is asked to con-

tinue his manifestations and to show the impression of his head in the putty, as he has already several times done. Eusapia replies that it is a difficult thing and asks us not to think of it for a moment, but to go on speaking. These suggestions of hers are always disquieting, and we redouble our attention, though without speaking much. The medium groans, pants, writhes. The chair in the cabinet on which the putty is placed is heard to move. The chair comes forward and places itself by the side of the medium, then it is lifted and placed upon the head of Mme. Z. Blech, while the tray is lightly placed in the hands of M. Blech, at the other end of the table. Eusapia cries that she sees before her a head and bust, and says, " \dot{E} fatto" ("It is done"). We do not believe her, because M. Blech has not felt any pressure on the dish. Three violent blows as of a mallet are struck upon the table. The light is turned on, and a human profile is found imprinted upon the putty.

"Mme. Z. Blech kisses Eusapia upon both cheeks, for the purpose of finding out whether her face has not some odour (glazier's putty having a very strong odour of linseed oil which remains for some time upon the fingers). She discovers nothing abnormal."¹

There are many cases, as interesting as this one, ¹ Pp. 70-75.

376 THE COMING SCIENCE

running through the book. I have merely picked out a typical séance, in which a number of representative phenomena are said to have occurred. Upon other occasions, these casts were obtained in the putty, placed in the cabinet, the medium sitting in the circle, and holding or held by members of the circle in such a way as to render escape (apparently) impossible; on other occasions, musical instruments have been seen to float about the room, playing of their own accord, and, when a light was struck, the instrument was seen to be in a position in midair, as, for instance, in the following case:

"The light was extinguished and the experiments begun again. While, in response to a unanimous wish, the little bell was beginning again its tinklings and its mysterious aërial circuits, M. Ascensi, taking his cue, unknown to us, from M. Tamburini, went (unperceived, owing to the darkness) and stood on the right of the medium, and at once with a single scratch lighted a match, so successfully, as he declared, that he could see the little bell, while it was vibrating in the air, suddenly fall upon a bed, about six feet and a half behind Mme. Paladino."

It would be unnecessary to repeat séances and de-

tails of such phenomena in this place, where space is limited. Suffice it to say that phenomena of this character have been taking place in the presence of Eusapia for a number of years past, and she has now succeeded in convincing a very large number of French and Italian, and some of the finest English, scientists of the fact that the phenomena are genuine, and are not the result of any known process or known law. Apparently, Eusapia is a second Home, whose advent has been so long awaited, and this time she is being thoroughly studied by some of the first scientific men of the time, and not left to the care of one scientist, as Home was practically left to Sir William Crookes. In many of these séances, the light has been sufficiently good to see the medium at the time that the manifestations were actually in progress, and she has been tied and held in such a manner as to absolutely prevent any possibility of fraud. Of course upon this question of possible fraud hangs the whole case. I cannot attempt, in this place, to refute that theory; indeed, we know that Eusapia will cheat whenever she can, as already said. But I quote a passage ¹ which seems to challenge explanation by any theory of fraud, and is one of the most interesting documents that I have ever come across, whatever theory we may choose to

¹ Annals of Psychical Science, May, 1907.

378 THE COMING SCIENCE

hold by way of explanation of the phenomena. At the séance in question, which took place in the psychological laboratory of one of the three sceptical doctors who were holding the séance (also the medium), the following took place:

"After table No. 1 had stood upright, Dr. Arullani approached it, but the piece of furniture, moving violently towards him, repulsed him; Dr. A. seized the table, which was heard to crack in the struggle. It was a strong table of white wood, about 2 ft. 9 in. high, and 3 ft. long by 22 in. broad, weighing 17 lbs.

"Dr. A. asked that the hand behind the curtain should grasp his; the medium replied in her own voice, 'First I am going to break the table, then I will give you a grasp of the hand.' This declaration was followed by three fresh, complete levitations of the table, which fell back each time heavily onto the floor. All those who were on the left of the medium could observe, by a very good red light, the various movements of the table. The latter bent down and passed behind the curtain, followed by one of us (Dr. C. Foa), who saw it turn over and rest on one of its two short sides, whilst one of the legs of the table came off violently, as if under the action of some force pressing upon it. At this moment the table came violently

PHENOMENA OF SPIRITUALISM 379

out of the cabinet and continued to break up under the eyes of everyone present; at first its different parts were torn off, then the boards themselves went to pieces. Two legs which still remained united by a thin slip of wood floated above us and placed themselves on the séance table."

It would seem almost impossible to explain such a case by fraud, and would seem to establish the genuineness of the phenomena, however incredible they may appear. Assuming, for the sake of argument, that these phenomena are really facts, that they actually happened, as stated, how are we to account for them?

When we come to explanatory hypotheses, there have been a number brought forward to explain the facts, and it must be said at once, not very satisfactorily.

There is first of all the theory that the nervous fluid or forces of the medium are in some manner externalised beyond the periphery of the body, and, operating in space, produce the results mentioned. As M. Flammarion expressed it: "The vital force of the medium might externalise itself and produce in a point of space a vibratory system which should be the counterpart of itself, in a more or less advanced degree of visibility and solidity." A number of the minor facts could be accounted for in this manner, such as the mere movements of objects without contact, and would seem to be strongly borne out by certain facts - e. g., the current of cold air (?) that is felt to proceed from the scar on the medium's temple when the phenomena are in full swing; and this would also seem to tell strongly against fraud. (Of course there is the possibility of hallucination to be reckoned with, in a case of this character, but in view of the facts, I do not think it need be seriously considered.) In a word, then, this theory of the externalisation of nervous fluid or force has much to recommend it; and there are many phenomena in physical science (radiation, etc.) with which to compare it; but there seem to me to be very many facts that such a theory would not account for at all. Take the cases of playing upon musical instruments, for instance: this implies intelligent action, and fingers to manipulate the keys, in the majority of cases; how is any "external force" to account for these facts? It seems to me that, while this theory has its uses, and may be the correct one to account for many of the phenomena, it cannot be the true explanation of all the facts, as we shall see more fully later on.

There has been another theory advanced, which is far more daring than that just proposed. It is that there is a sort of "fluidic prolongation of the limbs "— the real hands and arms and legs, e. g., being in some manner duplicated in the "astral" or fluidic or shell form and extended beyond the limits of the medium's body. "This prolongation is real," says M. Flammarion, "and only extends to a certain distance from the medium,— a distance which can be measured, and which varies according to circumstances. . . We are forced to admit that this prolongation, usually invisible and impalpable, may become visible and palpable take, especially, the form of an articulated hand, with flesh and muscles, and reveal the exact form of a head or a body."

It will be seen that such a theory is closely allied to the facts of materialisation; and, if we could accept such facts and the conclusions to which they legitimately lead, we should have no difficulty whatever in accepting the phenomena of materialisa-But it is also closely allied to the astraltion. form theory of the theosophists, and it is hard to tell which of these would be correct, were it not for the fact that the forms that appear, while they are often duplicates of the medium, in one or more ways, are also entirely different forms, upon occasion - being the forms of men, e. g., with large hands and a beard, etc. It is difficult to see how any astral-body theory could account for these facts - unless, indeed, we are prepared to admit the possibility of astrals of discarnate spirits; and if that is done, how are we to distinguish them, evidentially or in any other way, from materialisations?

It will thus be seen that we have been led to the spiritistic hypothesis almost without knowing it, as an explanation of the facts under consideration; and in many ways it is by far the most intelligible explanation, and explains a far larger number of the facts than does any other theory. On the other hand, there are many objections to such an hypothesis — the most formidable of which is the fact that it assumes a 'soul' capable of functioning — which is the very fact psychical researchers are attempting to prove, and so begs the question. If a soul were proved to exist, apart from such phenomena as those under discussion, then we should be entitled to speculate upon its potentialities and possible powers; but we can hardly prove a soul by such physical phenomena as those we have been discussing. The fact of the soul's survival must first of all be established by other facts than these; and then, that once established, we should be in a position to argue as to its possible powers and limitations. Personally, I think that it is premature to speculate on the origin and nature of such phenomena as those presented by Eusapia Paladino. The facts are not yet sufficiently well

382

established to warrant any speculations of the kind, though one can well see how it would be a temptation to offer such speculations when one has been thoroughly convinced of the nature and genuineness of the phenomena. There is always a temptation to try and explain facts that are new, to dovetail them into our present knowledge; and in a sense that is perfectly right and legitimate. It is only that the phenomena, in this case, are so remarkable, so take one's breath away, that one is inclined to cry " Halt" before any explanations are offered of facts which, in themselves, seem incredible beyond belief.

I shall end this discussion of the case by a quotation from one of Sir Oliver Lodge's addresses before the Society for Psychical Research, in London, when these phenomena first came to the attention of that Society and Dr. Lodge brought in his report on the case. True or not, these speculations seem to me to be highly interesting and suggestive, and well worthy of being preserved. In part they run as follows:

"The fact . . . that the medium's body undergoes sympathetic or corresponding movements or twitches is very instructive and interesting. Sometimes, when she [the medium] is going to push a distant object, she will make a little sudden push with her hand in this direction, and immediately afterward the object moves. Once this was done for my edification with constantly the same object, viz., a bureau in the corner of the room. . . . When six or seven feet away the timeinterval (between the push and the movement of the object) was something like two seconds. When the accordion is being played, the fingers of the medium are moving in a thoroughly appropriate manner, and the process reminds one of the twiching of a dog's legs when he is supposed to be dreaming that he is chasing a hare. It is as if Eusapia were dreaming that she was fingering the instrument, and dreaming it so vividly that the instrument was actually played. It is as if a dog dreamt of the chase with such energy that a distant hare was readily captured and killed, as by a phantom dog; and, fanciful as for the moment it may seem, and valueless as I suppose such speculations are, I am, I confess, at present more than half disposed to look in some such direction for a clue to these effects. In an idealistic conception of nature it has by many philosophers been considered that thought is the reality, and that material substratum is but a consequence of thought. So, in a minor degree, it appears here; it is as if, let us say, the dream of the entranced person were vivid enough physically to effect surrounding objects

PHENOMENA OF SPIRITUALISM 385

and actually produce objective results; to eause not only real and permanent movements of ordinary objects, but also temporary fresh aggregations of material particles into extraordinary objects these aggregations being objective enough to be felt, heard, seen, and probably even photographed while they last."

I think the reader will agree with me in feeling that these remarks open before us a world of possibilities, and incline us to the belief that we are "but shadows" after all, as Omar said, and that behind and beyond this world of matter there is another world of causes and forces, of which we are just beginning to see and realise the effects, and consequently which we are only just beginning to investigate. It is the world of noumena, of causes, that modern science must begin to investigate in this new century, just as the science of the last century devoted its energies to the world of phenomena or effects. When this has been realised and the energies and ingenuity of scientific men are turned in this direction, then we may begin to look for progress indeed; for development along lines hitherto all but neglected; for a wider and deeper and broader view of the universe. And it is this research into the world of causes which is, largely, the legitimate problem of psychical re-

386 THE COMING SCIENCE

search; it opens before us a new vista of latent possibilities and shows us that here is, waiting to be developed, indeed a new science; the science of the coming century — the Coming Science.

CHAPTER XVIII

CONCLUSION

I HAVE attempted, in the preceding pages, to give a very rapid survey of the field of psychic research and of the chief theories that might be advanced by way of explanation of the facts. As before stated, I have not attempted to cite any large number of cases or make any great showing of proof, for the reason that that field has been covered in many volumes on this subject: I have devoted myself rather to possible explanations of facts which must, some day, be recognised as a part of legitimate science. Once the facts are accepted, their explanation becomes of prime importance; and it will not be any disadvantage to the average person to be in possession of those ideas and theories that have been advanced, from time to time, by way of explanation of these facts.

There is no more fascinating field than this the borderland of the Unknown; the dim, obscure region that lies between mind and matter, between physical and spiritual forces and energies, between the noumenal and the phenomenal worlds. The phenomena presented for our consideration are themselves the most fascinating and the most vital

that can ever be discussed; while the immense significance of their interpretation must be apparent to those who think and reflect at all. Whether the universe is at basis material or spiritual is the greatest question that can ever be raised; it lies at the root of all moral law, no less than philosophy and science (in the generally accepted sense of the word), and is the most important question before the world today, without a doubt. Upon such facts as these must rest all future religion; for, apart from the facts of psychic research, what evidence have we that the soul exists after the death of the body at all? I have elsewhere pointed out that we have no such evidence; so that upon the outcome of this investigation may be said to hang the whole future spiritual evolution of the race. Materialism must ultimately triumph, if no facts can be brought forward to prove it erroneous; and that would mean the sacrifice and the abolition of the religious consciousness of the age. The societies for psychical research have long realised this point and insisted upon the immense importance and significance of the work in hand — a work that should be endowed a thousand times more lavishly than any of the churches, since it is (or soon will be) the only means and the sole weapon with which successfully to combat materialism. The issue once fairly raised, and the great

388

CONCLUSION

world-problems once grasped by the average man, this will become apparent, and then, it is to be hoped, the much needed and shamefully neglected support will be forthcoming.

I repeat: let one single fact which the psychical researcher defends be proved true and the fundamental conceptions of science, as at present held, must be completely shaken. It will not be necessary to retract any of the laws or facts which have been won with such great exertion, at such a cost, but merely to remodel our conceptions of science and enlarge its boundaries so as to include the new facts — and possibly to include a spiritual universe, a world of forces and causes, of which we see the resultants merely. We should open communication with a world of spiritual intelligences, they apparently producing phenomena which we are called upon to study; and the solution of these phenomena will, without doubt, form the Coming Science.

THE END

INDEX

Abnormality, question of, 59-78.

Absolute, the, 270-72.

Adler, Dr. Felix, 39.

Anderson, Dr., 74.

Apparitions, nature of, 273-84.

Arullani, Dr., 378.

- Ascensi, M., 376.
- "Atmosphere," 317-19.

Balfour, A. J., 60.

Barrett, Prof. W. F., 60.

Belief, value of, 30-32.

Bernheim, Dr., 74.

Binet, A., 74.

Blech, M., 375.

Braid, Dr., 74, 180-81.

- Bramwell, Dr. Milne, 73, 74, 75, 76, 179, 186–7, 189, 191.
- Bulwer, Lord Lytton, 326, 336.

Carus, Dr. Paul, 148-58, 166-9.

Census of Hallucinations, 279.

Charcot, Dr., 67, 72, 73, 181,

187.

Clifford, Prof. W. K., 135.

Clothes of ghosts, 315.

Cocke, Dr., 74.

Coming Science, defined, 2-13, 386, 389.

Confidence, importance of, 30-32.

Consciousness, inclusive, 34-5; nature of, 118; relation of, to body, 122-6, 129-36.

Consciousness of dying, 222-6.

Cooley, Georgia Gladys, 339-46.

Crookes, Sir William, 60, 196, 231-4, 377.

Crowe, Mrs., 313.

Criminal suggestion, question of, 74–6. Crystal-gazing, 65–6.

Cui Bono? 85-6.

Davis, Andrew Jackson, 94, 230.

De Courmelles, 74.

De Mude, 74.

Devil theory of hypnotism, 70.

Duncan, Dr. Kennedy, 110-11.

Dods, Dr. J. B., 112

- Dreams, nature and character of, 210-22.
- Dying, consciousness of, 222-6.

Electricity and life, 109-13.

Elliotson, Dr., 180.

Energy, vanishing of, 97-8; conservation of, 99-104.

Esdaile, Dr., 180.

Evolution of mind, 2-3; of spirit, 3.

Faria, Abbé, 180.

Féré, Dr., 74.

Flammarion, Camille, 52, 353,

371-5, 379, 381.

Fletcher, Horace, 41.

Foa, Dr. C., 378.

Fonteney, de, 373.

Fox Sisters, 228-9.

INDEX

- Funk, Dr. I. K., 139, 144.
- Future life, indifference to, 18-19; objections to, 20-23.
- Gladstone, Hon., 26.
- Gurney, Edmund, 60, 74, 182, 185, 187, 276, 278, 328.
- Haeckel, Ernst, 48, 52, 90, 125, 144, 146.
- Hallucinations, nature of, 63-6; Census of, 279.
- Happiness, defined, 41.
- Harris, Hon. John, 332.
- Hart, Dr. E., 72, 187. Hayden, Mrs., 231.
- Health, value of, 14-15.
- Heidenhain, Dr., 187.
- Hodgson, Dr. Richard, 68-9, 168, 235, 236, 237, 239-40, 241, 245, 248, 257.
- Home, D. D., 230–35.
- Hutchinson, Horace G., 195, 211, 214, 216.
- Huxley, Prof. Thomas, 82, 91, 128-9, 136.
- Hypnotism, nature of, 69-76, 187-90; vs. mesmerism, 179-80.
- Hyslop, Dr. James H., 53, 60, 194, 210, 222-6, 237, 249, 250, 251, 253, 255, 257, 298-300.
- Hysteria, 73.

Idealism, 27-8.

- James, Prof. William, 4, 31, 34, 52, 60, 68, 74, 88, 119, 120-21, 135, 137, 187, 207, 235, 239.
- Janet, Pierre, 328.
- Jastrow, Prof. Joseph, 83-4.
- Johnson, Miss Alice, 193-4.
- Lang, Andrew, 56, 60, 316-17. Langley, Professor, 60. Lavoisier, 93.

- Leadbeater, C. W., 209.
- Leaf, Dr. Walter, 236, 241.
- Le Bon, Dr. Gustave, 92, 93-7.
- Liébeault, Dr., 187.
- Life, meaning of, 39-42; nature of, 108-13.
- Lloyd-Tuckey, Dr., 74.
- Lodge, Sir Oliver, 44, 60, 80, 236, 241, 383-5.
- Lowell, Prof. Percival, 118, 188, 242.
- MacDougall, Dr. Duncan, 285, 286 - 98.
- Mason, Dr. Osgood, 79.
- Materialisation, possibility of, 95.
- Matter, nature of, 94-5.
- Melville, Rear Admiral G. W., 309 - 10.
- Mesmer, Anton, 179, 228.
- Mesmerism vs.hypnotism, 179-80.
- Metaphysics, necessity for, 6.
- Mind, evolution of, 2-3.
- Mind-stuff theory, 135.
- Mitchell, J. A., 361-7.
- Moll, Dr. Albert, 74, 187.
- Morbidity, 59-78. Myers, F. W. H., 60, 65, 74, 77, 89, 115, 182, 184, 186, 188-90, 196, 202, 214, 236, 241, 247, 276, 320-21, 328.

Newnham, Rev. P. B., 282. Nichols, Dr. T. L., 307.

- Omar Khayyam, 358, 359. Orthodox objections, 50-53.
- Paladino, Eusapia, 369-86.
- Piper, Mrs., 68-9, 235-8, 239-56, 257.
- Podmore, Frank, 63-4, 228, 315.
- Positive electricity, and life, 109-14.

- Prejudice, examples of, 46-7. Premonitions, theories of, 353-
- Psychical phenomena, value of, 24-6.

Quackenbos, Dr., 74.

Rabagliati, Dr. A., 307.

- Ramsey, Sir William, 91. Rayleigh, Lord, 60.
- Ripon, Bishop of, 60.

Romanes, J. G., 129-36.

- Ruskin, John, 60.
- Schiller, F. C. S., 18, 60, 126.
- Shaler, Prof. N., 104-5.
- Sidgwick, Prof. Henry, 60, 114, 241.
- Sidgwick, Mrs. Henry, 260, 314.
- Sleep, theories of, 204–10.
- Snyder, Carl, 109, 194.
- Spencer, Herbert, 136.

- Spirit, evolution of, 3. Stead, William T., 323. Stevenson, R. L., 18, 60.
- Stewart, Balfour, 60.
- Strong, Prof. G., 28, 135. Superstition, 53-7.
- Tamburini, Professor, 376.

- Telepathy, nature of, 115, 192-6, 201-3; evidence for, 196 - 201.
- Theological objections to psychical research, 50-53.
- Thompson, Mrs., mediumship of, 69.
- Thomson, Dr. Hanna, 129.
- Thurston, H., 109.
- Time-relations, in dreams, 210-11.
- Trance, description of, 241-2. Tyndall, Professor, 127-8.
- Universe, end of, 95-6; beginning of, 96-7.
- Vincent, Harry, 187.
- Vitality, impossibility of adding to, 37-8; and law of conservation, 99-104, source of, 101-4.
- Wagner, Rudolph, 298.
- Wakeman, Thaddeus B., 139-48, 169-73.
- Wallace, Prof. A. R., 46, 48, 60.
- Will, weakened, 73.
- Willington Mill, 337,
- X, Miss, 65, 79, 313, 318, 324-5, 326, 332, 334-6.

NPR 9 1947

1 1

Deacidified using the Bookkeeper process. Neutralizing agent: Magnesium Oxide Treatment Date: Nov. 2004

PreservationTechnologies

111 Thomson Park Drive Cranberry Township, PA 16066 (724) 779-2111

