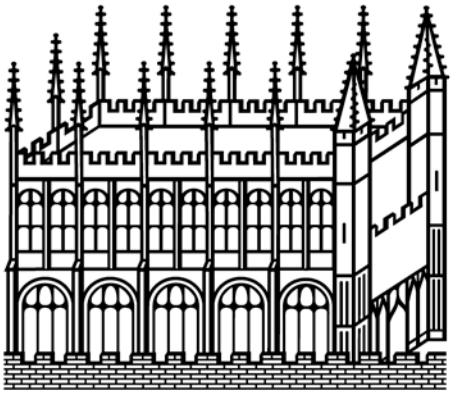

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THE TRIUMPH OF LIFE

WILLIAM BARRY

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THE TRIUMPH OF LIFE
OR
SCIENCE AND THE SOUL

BY THE SAME AUTHOR

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THE TRIUMPH OF LIFE
OR
SCIENCE AND THE SOUL

BY
WILLIAM BARRY, D.D.
RECTOR OF ST. PETER'S, LEAMINGTON; HON. CANON OF ST. CHAD'S, BIRMINGHAM; PROTONOTARY APOSTOLIC; SOMETIME PROFESSOR OF THEOLOGY IN OSCOTT COLLEGE.
AUTHOR OF 'THE TWO STANDARDS,' 'HERALDS OF REVOLT,' AND 'ROMA SACRA.'

'. . . . vivida vis animi pervicit.'
Lucretius, De Rerum Nat.
I. 72.

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To

ALFRED HERBERT, M.A. (Lond.), Ph.D. (Rome)

LATE PREFECT OF STUDIES IN ST. EDMUND'S COLLEGE, WARE

I DEDICATE THESE LETTERS
IN MEMORY OF OUR FRIENDSHIP FOR MORE
THAN HALF A CENTURY

ALWAYS MY JOY AND MY STRENGTH

William Barry

November 11, 1927
Armistice Day

ADVERTISEMENT

The first of the following Letters, and the Table of Contents which is also a Synopsis, may serve to indicate the scope and argument which the author had in view.

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THE TRIUMPH OF LIFE

LETTER I

RELIGION IS NOT A DREAM

My dear Doctor,—When I began these letters to you my travels abroad, as well as knowledge gained from observant friends, made me sure of the World-War coming. It came ; did its allotted task ; and is now a memory. For the time being, however, and several years afterwards, it left me no leisure to set down in black and white the argument which lay mentally complete before me.

Yet it was giving to that argument the emphasis, the momentum, of deaths by the million. For what did all those graves signify ? Written above them pilgrims could read the tender inspired text : ' Their bodies are buried in peace : but their name liveth for evermore.' Alas, and alas, is that all ? The question knocks at our hearts, challenges our utmost powers of mind, neither will it be satisfied with Hamlet's dying creed, ' the rest is silence.' For that apparent no-knowledge—Agnosticism, as we now term it in Greek —would be to us an assurance of death for evermore. It is an evasion in form, but an affirmation in fact, that to mankind Death ends all. And so Agnostic wisdom lapses into a doctrine bounded by these graves of our

friends, heroes, martyrs, as a gateless barrier. But ever something within us, and that our true self, no fancy but most real, aims at victory over dissolution. We cannot acquiesce, we as reasoning and reasonable spectators of the scheme of things, in such total bankruptcy. Our funeral rites, anniversaries, memorials of every kind, are but variations on the pledge of heraldry, 'Resurgam.' Unless that were true, our whole human record would become, in Macbeth's despairing outcry, 'a tale told by an idiot, full of sound and fury, signifying nothing.' I transcribe these words as if they were scientific prose, that we may seriously consider their import. By such plain talk the outcome, not simply of denial, but of declining to affirm man's immortality, is inflicted on our reason. In vain do we affect to be neutral. Our hopes and fears, our choice of good or surrender to the less ennobling motives, will be qualified as time goes on, and in the multitude, by the value at which we rate human existence. Is it for a little while, or for ever? That is the question.

You and I, my dear friend, have lived long enough to witness a remarkable change in the feelings or the sympathies of that vague but powerful number of our contemporaries who create what is known as 'public opinion.' Reckoning from the appearance of Darwin's 'Origin of Species' in 1859 we could have watched how Mill, in his earlier stage, Spencer, Huxley, Tyndall, and their associates, ruled English thought and substituted mere succession, without design or final cause, for Providence. According to that school of dogma—they gloried in it, and not a few glory in it yet—'all was juxtaposition.' They would not hear of 'substance' as the true reality of things; and hence our acute friend, W. G. Ward, attacked their philosophy

as 'Phenomenism,' or the doctrine of 'Appearances.' True, indeed, that Spencer confessed the existence of an Unknowable beneath phenomena; but since it could not be known it might, or must be, negligible. What, then, did philosophy make of Life in this passing show? It was an 'epi-phenomenon,' as who should say, a 'by-product,' and nothing more.

But the results of this indifference to the never-ceasing claims of Humanity were deplorable. A book, famous in its day, summed them up under the query, 'Is Life worth Living?' Without God in the world, or hope beyond the grave, it seemed to have lost all value. Nay, the satirist, a little maliciously, went on to argue that vice itself would lose most of its seduction when it was no longer forbidden. Here now is the gist of a formidable argument which every man may grasp. Take away the beliefs reduced by Phenomenism to superfluities, and behold, life loses its interest; soon it becomes weary, stale, flat, and unprofitable. In the course of some twenty years, a deep melancholy known as Pessimism began to brood over the classes attacked by this disease; neither did it find relief in the frivolities of fashion or the perverse tastes of decadence. The early Victorian era had been a joyous time of trust in a speedy Liberal conquest at home and abroad. But of this later period the prophet was that grim Schopenhauer, who contemplated the possibility of a world-suicide with satisfaction.

Why do I quote these chimeras of diseased imaginations, which both you and I detest? I do so by way of exhibiting how the Optimism of scientific unbelief turned most unwillingly to its contrary, and lost value as it grew in discoveries and inventions. It did not satisfy the heart even of its votaries. That gentle

spirit, Stuart Mill, has told us in certain moving pages of his 'Autobiography' how desolate he should feel, were even all his Liberal aspirations for mankind fulfilled. Professor Huxley's change of attitude towards the process of Nature's evolution was yet more remarkable. In some glowing pages to be quoted by and by he had once dwelt on the beauty, harmony, and even-handed justice, which he perceived in the Universe. But when in 1894 he delivered his Romanes Lecture 'Ethics and Evolution' he broke out into passionate invective against the world-process, and told his audience to withstand it as they loved their brethren. I have no wish to caricature a point of view that may be reasonably explained; but the change in tone and temperament surely came of disillusion.

And more impressive still than these recantations are the 'Suspiria de Profundis,' which sadden the concluding pages of H. Spencer's vast Autobiography. He was long a fierce opponent of Churches and Creeds. At last, however, 'the weary weight of all this unintelligible world' proved too much for him; and he would have welcomed a solution of the problem from any source. His own volumes which announced a Synthetic Philosophy are now seen to be a failure. In plain terms, they shed no light on the origin or destiny of Life.

I have called those last dying words of Mr. Spencer, 'sighs out of the deeps'; and so much do they make for my argument as 'ad hominem' that you will suffer me to quote a few decisive passages by way of illustration.

After dwelling on 'the all-embracing mystery, whence this universal transformation' eternal in the past and no less to be eternal in the future, he continues,

'and along with this rises the paralysing thought—what if of all that is thus incomprehensible to us, there exists no comprehension anywhere? No wonder,' he concludes, 'that men take refuge in authoritative dogma.'

But he finds the like problem in our own nature; 'this complex consciousness which has slowly evolved out of infantile vacuity,' and 'makes its appearance out of what seems unconscious matter; suggesting the thought that consciousness in some rudimentary form is omnipresent. Lastly come the insoluble questions concerning our own fate.' Haunted by these and cognate perplexities, Mr. Spencer allows that his change of feeling towards religious creeds and institutions 'has resulted from a deepening conviction that the sphere occupied by them can never be unfilled.' The great questions will rise afresh; and, 'if not positive answers, then modes of consciousness in their place, must ever remain.'[1]

We are thus not only permitted but even urged by the chief guardian of the Unknowable to take up an enterprise in which Religion is affirmed and investigated like any other object of science; for all alike, however real and accessible to us, at length run up into mystery. The sphere of Religion is no dream. So far as it falls into neglect Humanity suffers, and that is to-day our chief concern. Mill, Huxley, and Spencer, though not Fathers of the Church, seem in their several dialects to echo the language we have heard within its sanctuary. Mill's desolation, when he contemplates 'victorious analysis' in a Utilitarian triumph, was long ago pictured in St. Augustine's prayer, 'Thou hast made us for Thyself, O God, and our heart is restless

[1] *Autobiography*, ii. 455–71.

until it rest in Thee.' Again, Huxley's almost truculent defiance to evolution and its methods goes beyond St. Paul ; but in the acknowledgment of a mystery of suffering they both agree, ' For we know,' says the Apostle, ' that every creature groaneth and travaileth in pain, and we ourselves also,' but he adds, ' waiting for the adoption of the sons of God, the redemption of our body.' Lastly Spencer, with a humility strange in him, cries out in anguish to the desired but unseen God, ' O that Thou wouldst rend the Heavens ; that Thou wouldst come down ! '

Religion, therefore, is justified of its critics, and quite as worthy as any science, inductive or deductive, of our submission to its lawful claims. But more follows from the triple testimony of Mill, Huxley, and Spencer. They make it plain that mere Science never can found a Utopia in which men will be happy or content. We have always known so much ; but the admission is great gain. And when I speak of contentment you will not imagine me to have in view just some ' Lubberland,' improving on Mill's fancied Liberal Paradise. If I may quote Holy Scripture in illustration, my glance would descry the ' Tabernacle of God with men.' But clear it is, on the evidence of such enthusiasts for science as Huxley and Mill, that something is demanded by our moral sense which of itself their science cannot give. And Spencer's yearning for an interpretation of the mystery of things, not of course pretending to be adequate but yet sufficient that we may walk through the Valley of the Shadow guided by the Christian pilgrim's faith—does not this point to something in the nature of a living Eternity which will supersede the dead wastes where no light dwells for us ?

While philosophers were thus moving away from a mindless and soulless formula of evolution, a not unlike tendency might be remarked in public opinion. Darwin had perceived symmetry in organisms, as we all do, but the inference to reason or design—boldly say intention—which that correlation implied, was drawn not by Darwin, but by the Austrian monk, Mendel, who demonstrated its laws in a series of actual products. Law is intellect in action ; chance would be chaos. To whose mind, then, shall we attribute the stability and the variation of species ? It was a question in which already an answer lay hidden. No agnostic could fail to perceive in fact that correlation was not simply due to chance. The unlearned public knew more than did some Fellows of the Royal Society, and the heyday of Charles Darwin was over. His friendly rival, A. R. Wallace, always maintained that the creation of man was a direct Divine act, impossible to be explained by Natural Selection from infra-human types. Books by Wallace, dealing on these principles with ' Man's Place in the Universe,' and ' The World of Life,' exerted an influence which tended to restore the old definite and rational ideas of causation. We cannot, for instance, read Wallace's marvellous account of protoplasm and its achievements without recognising the range, delicacy, and infinite adaptation of its qualities to the task assigned it. Here is guidance in a vast Kingdom of Nature which, deprived of it, would sink into confusion and death.

Research also in the province of chemistry and physics has extended our apprehension of the intelligible order of things, far beyond what was known of it in my early studies. The chemical elements are no longer a motley array ; they are shown to be a

regiment where every unit answers to its own name, keep its place, and is definitely related to the whole series. This great conquest of an intelligible order in the elements will always be associated with the late Professor Crookes and his experiments on radiant matter. The discovery of radium is a landmark which can never be forgotten. In a celebrated phrase Clerk Maxwell had defined the atoms as 'manufactured articles.' They were held to be indissoluble and to all intents everlasting. But when 'electrons' entered on the scene those elements were analysed into electric combinations, and the solid singleness of the atom was a dogma no more. Medieval alchemy sought the transmutation of metals. Modern chemistry showed how it could be done, not indeed by magic or incantations, but by processes that all the world might follow. Electricity brought its own problems. It was referred to the ether, and ether became the subject of violent discussion. But the intelligible order of the elements had been clearly ascertained.

I cannot dwell upon other influences, such as the deliberate pursuit of Psychical Research promoted by our friends, Edmund Gurney and F. W. H. Myers, or the practice of Spiritualism which became rife, especially after the War, with many like symptoms, good and bad, of revolt from sheer mechanism in philosophy, that we noted as the last century drew to a close. Huxley's Oxford Lecture against Evolution ethically considered was a strange rallying cry to numbers that had been waiting until the tyranny of militant Atheism should slacken. Be the explanation what it may, undoubtedly Religion began to get a more favourable hearing than in the first onrush of Darwinism. Spencer's admission will always be

true ; Religion cannot remain an empty sphere. Life was other than mechanism made perfect. The soul would prove its reality by a supreme test ; and after years of warning the War broke out.

I had then begun to write these Letters, and was more than half way through them when I laid down my pen. You will remember how desirous I felt of summing up in one clear view the conversations which had so frequently, and for so many years, been held in my hermitage and little garden on the Thames, while the grey old Augustinian Abbey looked down upon us, and the Chilterns framed our horizon to the south. We could soon reach Oxford by the stream ; but to our minds it was ever present. Dear Oxford, where for twenty-five years I went to and fro among friends ! My visitors, you have observed, came from all points of the compass, minds which differed as did their outward seeming. Old systems and new knocked at my door. The Englishman turned Buddhist, who had lived a monk's life in Southern Asia, came to discuss an article of mine in the *Quarterly*. Undergraduates practised their milk-teeth on Agnosticism ; a Persian from near Urumiya quoted Hafiz to me, that enchanting singer of ghasels which you may interpret as the Sufi does, mystically, or call them simply Epicurean love-songs. Our friend, Mivart, came to talk on science, where he had held his own against Darwin ; or on philosophy, in which he agreed with St. Thomas Aquinas. We met often, and until sickness broke him down and affected his mind he was a sincere Catholic, though on some points flighty and fanciful. The renowned Positivist, Kegan Paul, came to tell me that after thirty years of indecision, ' living in chaos ' he termed it, he had abandoned Comtism

for the Roman Church. Besides these and others who cultivated philosophy in a rational form, you call to mind visionaries and dreamers whom you found intolerable, as I did also, but in they came as if sent from Heaven. I say nothing of religious visitors, Anglican, Presbyterian, Nonconformist. All were of service to the mind that sought a 'real' apprehension of other, and more or less contrary, views than its own. Neither will I do more than register my own continual reading, by which I was taught how the Greeks, English, Germans, and Easterns attacked the problem of Man, his duties, and his destiny.

But also his danger. For I could not escape the conviction that modern civilised society was in peril of ruin. Intellectually, it was breaking up. Science held out a prospect of subduing Nature by means of its own laws ; but Scepticism, which loud voices were proclaiming as the infallible dogma of science, threatened to 'make an end of all.' Professor Romanes, whom I met in society, had written 'A Candid Examination of Theism,' in which he denied God and implied of man that he was 'a beast, no more.' But, heart-stricken, he added, as if with Sophocles pitying unhappy Œdipus, 'Mayest thou ne'er know the truth of what thou art.' By and by, under guidance from Bishop Gore, this repentant atheist confuted by an edifying life and a Christian death his nightmare of a doctrine. Yet he had shown, as in a lightning-flash, what the world would be like if ever it accepted as its last gospel the creed of no God and no Hereafter.

From Huxley, Spencer, Romanes, then, I might learn the antidote which would heal this plague of the Black Death. We must prove that Life and Mind

were not secondary, or accidental, or derived from matter and motion, but aboriginal and of necessity everlasting. That is the aim, the argument, of my Letters.

It is not new—how could it be ?—and so much the better. I open my Plato, who has been a guide to me since youth, and in the tenth chapter of his ' Laws ' I find the text and proof needed for this liberating theme. With a beautiful Greek lucidity we are made aware of the first and fatal error into which physical science has been betrayed. Its votaries put Mind last, and Matter is held to be its cause. But if what we mean by the ' Soul ' is prior to the body, then ' thought and intention, and mind and art and law, will be prior to that which is hard and soft or heavy and light ; the great and primitive works and actions will be works of art.' And again, ' We must not allow the sophist to escape by an appeal to " Nature " as the first creative power, for Nature is a product of Mind, and could not exist at all unless it were.' The first principle, then, of every universe, actual or possible, is Life or Mind. What we term Science is all under Law ; but Law is Order, and Order implies, nay exhibits, design, which is the only rational and sufficient account of it. Thus far I am led by Plato, beginning with him the Divine Pilgrimage that was followed by Dante upwards and onwards, until he saw with open eyes the vision of ' Love that moves the sun and all the stars.'

My purpose being practical conviction, not idle ' Spielfechterei '—neither show nor dialectic vanities —I begin by clearing away pretended scepticism or the arrogance of ' Solipsism,' where a man affects to have direct and absolute certitude only of himself. I do not allow that we learn the existence of that which

is not ourself simply by inference—you and I know one another by the direct experience of half a century.

I maintain, furthermore, that of all creatures which we meet during our earthly existence, Man alone betrays the possession of 'those thoughts that wander through eternity.' Beyond a doubt he has them; and thereby he transcends time and space. None other of the myriad species dwelling on this planet has ever given a token of such knowledge, or the desire of attaining it. Man, therefore, is divided by his faculty of reaching universal and necessary truth, by religion and the Moral Law, by his very language and art, from all other living creatures with which he is acquainted. He is unique now, thanks to these endowments, and his destiny ought to correspond. Because we can know the Truth, we are already set free from Death. Again, because we can love Right for the sake of Right we are capable of attaining to the Absolute Good. Time is here altogether out of our reckoning. In such acts and choices, even though we suffer, still can we declare with Spinoza, but in a Christian sense, that 'We feel ourselves to be immortal.' In this way it is that the scandal of the Cross becomes the Triumph of Life. And though Nature does not announce Resurrection, yet we may cherish even that hope. But whatever good awaits us, it will be given to the spirit that knows, determines, and acts in the light of Eternity.

You may have been wondering if an argument of this complexion would reach or persuade the average man. I think it could be made plain to him, although I grant, of course, that religion has its own far more excellent way of teaching him to cry out with St. Paul 'O grave, where is thy sting? O death, where is thy

victory?' But I feel none the less convinced that it is our duty to lay bare the fallacies of scientific men, who in the name of knowledge have become preachers of everlasting death. And I can show good grounds for the hope that is in us. Sure I am that to keep silence on such topics will give error a most dangerous advantage, as though facts and reason favoured it, whereas our nature and the very intellect used against us will furnish the arguments that disprove it.

Recent experience has demonstrated, by 'broadcasting' as we term it, that every occurrence is registered, and therefore observable, in the world around us, given the fitting medium on our side. Which being so, we may conclude that nothing passes away utterly; the present, seen or unseen, holds the imprint of all that went before, and all things endure 'sub specie aeternitatis,' in the everlasting order. I have remarked some shadowy semblance of this conception in Spinoza's 'Ethics' but he was a Pantheist, and our normal experience does not go beyond the finite sphere. Even so, is there not a universe already waiting for the spirit when it has left its tenement of clay?

Let me borrow a striking phrase from the 'Agricola' of Tacitus which will cover my whole argument, while echoing Plato's contention previously quoted. He writes with assurance, 'forma mentis aeterna.' The Greek philosopher declared that 'the soul,' by which he meant God, was prior to all else; the Roman historian believed that man's better part was immortal. And if this be true, we are encompassed by a great cloud of witnesses, though unseen. The agnostic is a lonely dweller in a silent universe. His talk is a soliloquy; and the materialist knows well that neither energies nor elements are aware of him or ever will be,

unless mind is added to them. In brief, either Life above and beyond us holds up our Life, aids it to win spiritual perfection, and crowns its endeavours, or existence has no worth. But, 'forma mentis aeterna,' —God has ever been, the soul of man will never cease to be.

Let us, then, go down into this argument with Plato, knowing, as he knew, that 'our battle is immortal, and God and the Angels fight with us; and we are their possession. And the things that destroy us are injustice, insolence, and foolish thoughts; and the things that save us are justice, self-command, and true thought, which dwell in the living powers of God.'[1]

My letters follow, most of them written over twelve years ago. They have gained, not lost, by the pathos and consecration of the War.

Ever yours,

WILLIAM BARRY.

June 9, 1927.

[1] *Laws*, x. 906, Ruskin's translation.

LETTER II

THE GREAT SOPHISM REFUTED

My dear Friend,—Systems of philosophy are built up on abstract ideas ; and systems of physics on abstract forces. The metaphysician takes all being, real and possible, for his province ; but he brings it down to the most general terms ; he constructs a highly technical language ; and he declares that there is no ' science ' of the individual, in other words, of you and me. Physical theories or speculations deal just as much in the abstract, by formulas and ' laws,' to which any particular instance of energy is assigned. To quarrel with ideas as such, or with forces acting by rule, would be the height of unreason. But when we call to mind that forces never act in isolation ; and that no individual can be resolved into another, we must admit that formal philosophy and science are limited by the method common to both, which is analysis.

Now the real universe of Nature and Man is not simply a series of ideas, or a juxtaposition of bare energies. Man, certainly, is an organic whole, and he acts as a whole. Nature subserves ends—at any rate obeys directions—which no physical force, no machine, can prescribe to itself. From notions, however definite, we shall get only notions, unless they guide us to realities which are more than notions.

And unless we have at our command the actual forces which we define, all the formulas ever invented will leave our 'science' barren of results. Analysis of ideas never created anything. The world exists, we live and think and act, before the explicit reflection, or the deliberate experiment, on which this second kind of knowledge is founded, has taken place.

We have, then, direct immediate acquaintance with real being—ourselves and not ourselves. We do not wait until the sage proves it by inference or the chemist subjects it to a fiery trial. Neither do we guess in the dark at a possible universe. To speak technically, intuition goes before reflection. We know ; and can make of that knowledge a fresh object for the mind's contemplation ; but first we know, and then we reflect. Moreover, that which we grasp immediately is not an abstract but a concrete, an actual experience, in which the object outside of us—different from us—reveals itself to the perceiving subject as real. I am not a dream but a living individual ; the world with which I come in contact is equally individual in its units ; and while apprehending it I judge beyond all conceivable mistake that it does not depend on me for its existence. I did not make, I cannot unmake it.

'Surely,' you will reply, 'these are commonplaces.' Let us rather fix them in our memory as certitudes. It is impossible that our first knowledge of things should be an 'inference,' for every inference is derived from premisses already known. It is just as impossible that we should begin to know by dwelling on our 'states of consciousness,' for this cannot but suppose consciousness to be already present. Yet I read in the writings of an eminent and sincere defender of

vital knowledge, ' philosophers teach us that whatever we are primarily and directly " aware of " is not anything external, but is a state of our own mind and consciousness. External reality is an inference or deduction from that. And though all our experience is based on reality, the reality may be very unlike our conception of it.'

I bid you mark these aphorisms presented for our acceptance by Sir Oliver Lodge. In one short paragraph this accomplished thinker has contrived to state the master-sophism which poisons modern philosophy at its source. And he believes that he is merely rehearsing an admitted first principle taught by ' philosophers,' of course by all sound and wise ones. If I assure him that the medieval Schools taught quite another doctrine ; and that Catholic philosophy holds to it still, what would he say ? Or if I went on to prove, as I will in a moment, that the ' Solipsism ' contained in this unwarrantable assertion brings in its train the Idealism denounced as fatal to science by Mr. Spencer, nay the scepticism which is a natural consequence of affirming without grounds (other than a blind instinct) a universe of molecular energies and an extended ether, which most indubitably cannot be found in our ' states of consciousness '—would all that amaze Sir Oliver Lodge ? But, as he is well aware, the judgment of the Catholic schools is, in these declarations, the judgment of mankind. Human nature, it has been granted, even by Schopenhauer, never would admit that the material universe was simply an illusion of the senses or dependent on the mere affirmation of our faculties. In life, outside libraries and lecture-rooms, no man or woman can pretend to be a sceptic yielding merely to ' blind '

instinct ; for the assurance we have of a material and real world is overpoweringly clear. None are idealists, for you never could persuade them that their ' consciousness ' determines the existence of real yet inanimate things. And when was any mortal not insane so venturesome as to believe that he alone existed, while all other beings were the phantoms of his dreams ? When a principle brings forth consequences like these, we know that it is false. Yet here is a distinguished man of science who takes for granted that all philosophy, deserving of the name, starts from this assumption about ' states of consciousness.'

I repeat my emphatic ' nego ' to this great first falsehood of a self-contradictory system. Abstract reflection can never be the starting-point of human thought. I begin with an immediate apprehension of some real object which I, the living subject, perceive. In and by the same act I become aware of that which I perceive and of myself perceiving it. A ' state of consciousness,' which in terms is a mere abstraction, cannot be given apart from me who am conscious. If the whole of knowledge consisted in that ' state,' on what ground should I have a right to infer that I, the Ego, was something real outside it ? Or that any objects whatever could be affirmed outside it ? Mr. Spencer, from these false premisses, drew the necessary conclusion. If all we know is made up of states of consciousness, then the Ego, the Universe, and God, are unknowable. We may believe how we choose ; but let us not call our faith, founded on ignorance, philosophy or science.

Matter is, according to physical definitions, ' inert,' i.e. it cannot move itself, and it is subject without exception to Sir Isaac Newton's three ' laws

of motion.' Force, which we denominate energy in these days, is the cause of motion in matter ; it can be neither increased nor lessened, but only variously distributed in the universe ; and this doctrine is known as the conservation of energy. At whatever period man made his appearance on the planet, nothing is more certain to the physical expert than that matter and energy existed in combination and obeyed the law of persistence myriads of ages before the first Adam. Now in a ' state of consciousness ' matter is not discoverable, for that state has no extension. Energy, meaning the cause of motion in space, cannot be applied to that which occupies no space. These independent realities once made up the whole of the planet when man was not. Hence they cannot be the creation of his feeling, his thought, or his will. They have nothing in common with self-consciousness beyond the fact that they exist—if they do exist. And how from a given ' state ' in which none of their attributes could possibly be traced, arrive at the conclusions, objective, yet affirming no mental qualities whatever in those objects—apart from which astronomy and geology lose their very being ?

Is not the proper inference from Sir Oliver Lodge's solitary ' state of his own mind ' a sceptical doubt, invalidating all physics ? And is not belief in a non-mental order of realities, on the same showing, an irrational act of faith ? Extension, space, motion, manipulate them and their products as much as you please, remain unconscious entities ; and, since the whole of our supposed premisses are states exactly the reverse, by what magic shall we ever lawfully deduce one of these contraries from the other ?

All that we could venture to assert, under these

conditions, would be the imaginary semblance of a material world presented by one mind—the mind of God, if so be—to another. But where was the ideal spectator before man arrived? I do not fancy that modern science proposes to accept Berkeley's transcendental visions, or even St. Augustine's, which curiously anticipate them, in his 'De Genesi ad Litteram.' If not, and we are to avoid scepticism, we must give up the notion that only by inference from our states of consciousness do we learn the existence of energy and matter. We learn it, as a real experience, by intuition of its present reality. The obstinate dislike to Idealism which all men feel, however some profess it, I take to be a striking argument that we recognise in ourselves, thinking subjects and immaterial by nature, this surely wonderful power of knowing a whole universe not resembling our minds, but entirely distinct from them, and a hindrance in many ways to their free action. It is highly improbable that from mental concepts alone we should ever have been led to the ideas of matter, force, and motion.

But the real things we so name are not themselves 'ideas,' any more than they are 'images,' or 'impressions,' or 'affections' of our mind. The late Professor Huxley showed us, without precisely intending it, to what unscientific extravagances a man may be led who professes to accept this sort of Idealism. He says in his peremptory way, 'If the materialist affirms that the universe and all its phenomena are resolvable into matter and motion, Berkeley replies, "True; but what you call matter and motion are known to us only as forms of consciousness; their being is to be conceived or known; and the existence of a state of consciousness, apart from a thinking mind,

is a contradiction in terms." I conceive,' observes Professor Huxley in conclusion, 'that this reasoning is irrefragable.' Let us examine it then, and see.

The 'being,' which surely means the reality, of oxygen, nitrogen, chlorine, arsenic, copper, lead, gold, and all other elements with their innumerable combinations, is not, on this showing, a variety of substances capable of acting on one another—not at all—it is their perception by the mind. When they are known they exist ; when not known they do not exist. A few years ago radium was not known to any mortal: therefore radium was not. Tyndall says of the mechanism of sound now familiar to us as Corti's organ, 'Within the ears of men, and without their knowledge or contrivance, this lute of three thousand strings has existed for ages.' Whose 'form of consciousness' shall we affirm that it was, while thus hidden from our thought ? Did Professor Huxley believe in a Divine Mind before which the elements, and the worlds formed from them, were present as ideas since the universe began, and that in this their reality consisted ? We may safely answer no. What, then, you will ask, could he have meant when he said that the 'being' of matter and motion is 'to be conceived or known,' maintaining all the while that stars and star systems moved in the heavens during countless periods when, so far as he, the agnostic, was aware, mind itself need not have been ? In the light of his agnosticism on this point I can attach to the words no meaning whatever. As a man of science he was continually using arguments which involved the past existence of the universe time out of mind, long before human 'states of consciousness' were possible on the globe. As an idealist he could not affirm any such thing, unless

he went on to postulate a Mind other than human to which that universe was a known idea. How he fell into so strange a dilemma, for the agnostic that he certainly was, we may now perceive. It is due to his holding, perhaps with Descartes, at all events with Locke, Hume, and Spencer, that 'states of consciousness' are not only the means whereby as a vital process we know, but the sole and entire objects of our knowledge.

Mr. Spencer's own constantly recurring dilemmas, which make of his 'Synthetic Philosophy' one great confusion, are due to the same error. Listen to the following, and say whether it describes your actual experience when you visualise an object: 'The state of consciousness produced by an object seen, is composed of sharply outlined lights, shades, and colours, and the co-existent feelings and relations entering into one of these groups form an indissoluble whole.' Do you find that your act of perception, which is absolutely one and simple, is 'composed' of the 'lights, shades, and colours' attributed by you to the object? Perception is a mental act, terminating outside the mind in something illuminated, shaded, and coloured; but those properties cannot belong to your act itself, an unextended vital energy. Yet Mr. Spencer was convinced that 'what we are conscious of as properties of matter are but subjective affections produced by objective agencies that are unknown and unknowable.' Why 'objective' agencies? How can he lay it down that the Unknowable is a cause producing 'subjective affections' if it never becomes, or will become, a 'state of consciousness'? He affirms most gratuitously an 'unknown something' beyond those states—everlastingly unknown by its very nature—of which we

are supposed to be in total ignorance while we talk about it freely. These enormous contradictions warn us that Mr. Spencer has made a mistake somewhere at the beginning of his observations which condemns him to a system of Unreason. For what can be less in accord with our mind's first principle, than to maintain that the cause of all being and all intelligence is necessarily unknown, even to itself?

And his mistake lies in separating from real Being, whether man's own or that of the inanimate world, the 'states' in which it exists, as if the reality were on one side, the manifestations of it on the other. He has taken a purely mental distinction made by science for an actual one *in rerum natura*. There is no such *thing*, although we may use the *idea*, as an abstract 'consciousness.' The analytic method yields results after its kind, which are notional, not real. In plane geometry, for example, we work out problems by considering lines as if without breadth, and surfaces without regard to their depth. Such abstraction is a most valuable help to science: but if we travelled on Mr. Spencer's path we should affirm that lines which were only length, and surfaces which had no thickness, were alone actual or conceivable. Bodies, however, claim to have all three dimensions at once. And the living conscious subject claims to be in all its states, which are nothing but itself variously conditioned. From abstractly conceived sensations, feelings, emotions, thoughts, or volitions, taken singly or in succession, you cannot deduce the persistent self; and no wonder. It is not an inference from them, but a reality in them, as they exist outside the philosopher's purely mental analysis.

Let us, I conclude, take from Mr. Spencer those

admissions which the judgment of mankind ratifies, and leave his enigmas of an Absolute or an Unknowable, the sum of all possible contradictions, among the curiosities of literature. We will accept 'the personality of which each is conscious, and of which the existence is to each a fact beyond all others the most certain'; but we will not stultify ourselves by adding immediately, as he does, 'yet it is a thing which cannot truly be known at all; knowledge of it is forbidden by the very nature of thought.'[1]

When we read statements like the above, occurring as members of the same sentence, and given among 'First Principles,' our bewilderment is extreme. Contradictions in thought are, unhappily, not rare in any one of us; but we do not mean them; we recognise that reason forbids them as breaking its primary law. What must be our amazement when a philosopher, bent on the pursuit of truth, opens his enterprise with a solemn warning that 'the very nature of thought' forbids us to know the fact which is to us of all others the most certain! Neither is the startling affirmation put forth, as by Hegel it might be, to stimulate our search after some more elevated or abstruse kind of apprehension transcending our actual mode of 'thought.' No, the contradiction is in the idea of knowledge itself, in the nature of real being, in the Absolute, the Relative, and their relation to each other. It is final with a finality the most hopeless that can be conceived. Analysis of the most certain fact, we are told, shows it not to be a fact at all. And such is the 'Synthetic Philosophy' from first to last. Surely we shall be justified in exclaiming, 'That way madness lies.' I have called Mr. Spencer's a system of Unreason. Will anyone who has its multiplied and

[1] *Synthetic Philosophy*, Collins, p. 9.

deliberate self-contradictions in front of him describe it by a less damnatory name?

But these portentous aberrations from common sense and coherent speech are not simply the fruits of an unsound intellect. They spring from the unwarrantable application of the perfectly lawful method by which we reflect on our ideas to the realities partially represented by them, without making allowance for what has been originally given in experience. Such ideas never exhibit more than some aspect of life. Being abstract, they are general; but life in every case is individual. Again, they display things in sections; but sections obtained by mental analysis leave the totality unaffected. They distinguish faculties and functions as if separate; but the living unity pervades all these and dwells in them at once. Life is not a text-book in successive chapters, where the senses occupy one division, the intellect another, the soul a third. Each man is himself in all he does. Philosophers —bookmen by trade—are tempted to describe him in passive terms which suit their contemplative humour; but he acts and reacts every moment of his waking existence, and he declines with vehemence to be made a means, or an instrument or a dead ground on which foreign influences may work their will. He reacts, I say, upon nature and his fellows, with all the vigour of his personality, which endures through countless 'states' as their support and their substance. How resolve such a being of infinite potentialities into abstractions, into bundles of images or associations of ideas, that is to say, of passive feelings, inflicted on him by 'unknown agencies' from without? He is himself alone. That most sure fact he knows; and in knowing it he laughs at the sophism which tells him that because he is absolutely real he never can affirm his own existence.

LETTER III

SELF-EVIDENT TRUTHS, INTUITION AND MEMORY

My dear Friend,—We have rescued our Eurydice, the soul, from the grasp of that King of Terrors, the Unknowable, whom or which Mr. Spencer worshipped a little too superstitiously. The soul or the Ego ; the spirit or the self ; whatever is meant when any one of us thinks 'I am I.' But now we must enquire with prophets and philosophers, 'What is man?'—a deep question. Hamlet bids us consider him : 'how noble in reason, how infinite in faculty! In form and moving how express and admirable! In action how like an angel, in apprehension how like a god! The beauty of the world, the paragon of animals,' but yet the 'quintessence of dust.'

Descartes said 'I think, therefore I am'; but he would have done better to say 'I am, therefore I think.' For the true order of existence, to be distinguished from the order of reflection, is 'I am, I know, I can, I will.' Our activities all centre in the self and proceed from it. They embrace a world within, while striking on a world without at innumerable points. In myself I am not visible to any other human mind; neither is it accurate to call my feelings, thoughts, or volitions, phenomena; for they do not 'appear' outside my consciousness, but only certain signs of them, as language and gesture, from which they may be inferred, not directly appre-

hended. The Ego is a hidden reality to all except itself. I do not yet speak of possible intelligences above man. But momentous consequences lie folded in the truth, so obviously certain, that the soul never 'appears' or 'disappears'; that the tokens of its presence are extremely variable, and must be treated as symbols, not specimens of 'that within which passeth show.' Moreover, as we have demonstrated from the irrational conclusions of Spencerism and its compeers, the Ego is not to be deemed an abstraction or an unknown entity, but most recognisably real.

Science, philosophy, revelation, are grand words, inscribed on the finest pages of history; but, whatever be their message, it speaks to the soul, and by the soul it is judged. I do not mean that our intellect creates or exhausts the truth; it can do neither. But in virtue of a certain wonderful power which it possesses, the human mind is to itself the measure of all things. This power, the most astonishing in our nature,—in some way the most secret, because deeper and more primitive than others which depend on it—is termed by learned men 'intuition,' or, as we might say, the soul's insight. Shakespeare makes Hamlet talk of the 'mind's eye'; but this faculty is at once eye, light, and vision; it sees by an illumination proper to itself, has no real bodily organ, and certifies its own knowledge. By it we are aware of ourselves as individual yet immaterial beings; of the world as distinct from us; of the principles which justify reasoning in whatever department; of the primary moral axioms; and of our own free will. It perceives necessary truths or first principles; but it likewise reveals to me this incommunicable self, this Ego, in the acts which I put forth, and by means of them. Intuition is, therefore,

conscious and may become to an intense degree self-conscious. But it always brings immediate, certain, self-evident knowledge.[1]

A power like this will be deemed by many who have not reflected on their own minds incredible as Eastern magic. They will confound it with instinct, or fancy it a blend of sensations—anything rather than allow what seems to their apprehension (especially when conversant with physics) a sort of miracle. Yet, surely, it must be granted that all knowledge is either immediate or derivative ; that inference takes us back to propositions already held ; that such a process cannot go on for ever ; that, consequently, there are truths ascertained by an evidence which does not require further proof ; and thus we arrive at truths self-evident. Otherwise, all our so-called sciences would rest on assumptions ; and as these could not be verified by principles themselves in need of verification, the whole world of ideas, and therefore of experience other than sensible, would rest upon an ' If.' But we are certain that we possess certitude. Therefore we have the power of intuition without which certitude for us would not exist.

We must not, I say, confound intuition with instinct ; for instinct makes no affirmations about the object towards which it is impelled. Nor with hypothesis, which means an unverified supposition and would cut the ground from under our knowledge. Nor with reasoning, though never so elementary and simple; for how then should we get the premisses from which to start ? Experience may give us the facts of sense in

[1] As the word is used here, intuition covers immediate consciousness of facts by the mind as well as of other truths avouched on their own evidence.

their own order; but as soon as we affirm them in the mind we utter a judgment, subject to all the laws of intellect, seen to be true by its own light, or by the light of other propositions ; and so we come back to our first principles if we would not be sceptics. The mind is sovereign in its own right, because it knows these principles by a power inherent in its make and essence. Now, every judgment thus intuitively pronounced, as well as every concept so obtained, implies existence; or is, according to the demand it puts forth, real and not a fiction. If its truth is evident, the reality which it affirms cannot be denied without error. Again, since it is I who utter mentally this declaration, the act itself manifests to me that I exist. By memory—which is an undoubted intuition—I build up these experiences into a whole, more or less complete, of varying depth in the perspective, but real as the acts themselves were certain and individual. Thus by intuition I learn what I am, remember what I have been, and may be led on to anticipate what I shall be hereafter.

These mental explorations, discoveries, assurances of mine, while strictly belonging to me and no one else, are not peculiar in the sense of being only mine. They repeat themselves in my fellow-men, and were a matter of history on the largest surface ages before I was born. The immense human world, ever since the *genus homo* grew to consciousness, reveals intuition of necessary and spiritual truth, without which it could never have been. Humanity lives in the light, on the strength, of intuition, metaphysical and moral. This gives to our nature its value, and enables our mind to fix the standard of things rightly. Men of science frequently regret that, owing to the want of language or for some

deeper reason, animals cannot tell us what view they take of themselves or how they interpret their experience. We are compelled to judge about their feelings and actions by analogy with our own, which may often lead us astray. In any case, all we know concerning this vast lower life is gained from the outside, by observation, which we construe as well as we may by inferences founded on our own nature, so far as it resembles what we see of the brute creation. But with mankind it is otherwise. Here, for the first and only time, we find ourselves inside the surface of reality, actors not merely spectators in its processes, and intimately present to them. By the information thus acquired we judge all things in heaven and earth. It becomes our first and last criterion never to be transcended, from which we set out and to which we come back even when we have built up an encyclopaedia embracing all sciences, arts, experiences, philosophies, and religions. We never, in fact, lay aside this test and ground of truth, however little we may reflect upon its presence in our arguments. Hence the whole of human knowledge may be reduced to a witnessing on the mind's part to its own certitudes. The subject that knows enters into every account of the object known and gives assurance of its validity. I am that subject.

But, it may be argued, does not this consciousness depend on the brain? And is not all brain-action due to a prior action, immediate or remote, of the bodily sense-organs on the brain? 'Such action,' it is concluded, 'makes the brain produce sensations and mental images, and out of these all higher forms of thought and knowledge come to be framed.' Hence, intuition is a secondary product of physical energy, not ante-

cedent to the senses but consequent on them—their effect and so not their criterion. The senses, therefore, determine what we shall take to be true. Or, putting matters plainly, intellect is nothing more than a later and fainter version of sensible experiences, valid if they were not hallucinations, but incapable of going beyond them.

This view, in some shape, is now widely held. 'Is not consciousness,' we read, 'comparable to a sort of steam, or perfume, or electricity, or nerve-glow, generated on the spot in its own peculiar vessel?' And thus, our intuition of necessary truth could never be, as we said it was, the foundation of all our knowledge. How shall we reply?

We answer that unless the subject, or the mind, declares our sense-experience to be valid, we cannot so much as affirm that we have such experience. And it cannot make this declaration except on grounds which justify it. These grounds are either conclusions from other grounds or are self-evident. If conclusions, we are compelled to ascertain their premisses until we reach some truths not requiring proof. From this there is no escape.

The matter is of infinite moment. We will therefore do our best to drive the truth home by asking readers how they would show that physical science was justified, suppose in foretelling an eclipse of the sun this year! Were astronomers certain that it would take place? Only on the hypothesis that our solar system continued to be ruled by the laws which have governed it in the past. And how did they know what those rules were? Not by observation, for observation has regard strictly to facts here and now perceived. By memory, therefore. But how do astronomers know

that their actual impressions of memory correspond with a vanished past? The past was whatever it was; memory is an impression in the mind now thinking, and not a past experience. By what means can we test it? Take any means you please, they must always involve belief in memory as reliable; otherwise we could not so much as guess that we had any knowledge beyond our immediate consciousness at this instant. As, therefore, all science depends on memory, and memory alone certifies it, and present experience without memory could never enable us to affirm the past (by virtue of which as revealing uniform laws of nature we predict the future), it is clear that science rests upon the mind's intuition of self-evident truth. I cannot compare present and past except by memory; I cannot know that memory is faithful except by intuition; and I cannot argue that the future will be like the past except by reasoning from phenomena which no longer exist, but which my remembrance, not my mere experience, guarantees.

In a true sense all our knowledge of mind and matter, be it common or scientific, is subjective; not in the trivial meaning that we think it, but because its certitude to us depends on the light of reason which the intellect alone possesses. We are not slaves of matter and motion, but judges over them; we read experience by an illumination which we bring to it apart from which it would be unintelligible. In nothing do modern men so glory as in the certitude of their sciences, often overstated and too easily presumed. But wherever we find certitude we shall find first principles, self-evident facts, and these witnessed by the mind in virtue of its innate powers. It affirms because it sees. It is not merely conscious of judging;

it knows in the given instance that its judgment is true. It does not assume, or suppose, or imagine ; it perceives.

To say that all we are acquainted with is but our states of feeling would make the world a sort of painted chamber, itself a dream within a dream. What we know, by means of experience, is not an abstract idea called a ' state ' ; it is the real self, existing as a fact in and through every one of its ' feelings ' ; as likewise some reality distinct from the knowing subject, a term outside the mind, manifested to it, not simply created by its action. In other words, I the subject am aware, beyond possible mistake, of myself and of the universe which is something else than I. These truths, concerning primary facts, cannot be proved ; for no assertion is conceivable into which they do not enter. If a man tells me that I am an illusion, or that no universe is given except in my illusion, how shall I refute him ? And what need of doing so ? He knows, and I know, the falsehood of that statement with which he is amusing himself. But this I can do, —and if, on hearing such murderous sophistry, we all did it, volumes of anarchical unreasoning would become waste paper,—I can deepen my reflex consciousness as regards the Self and the Not-Self, by dwelling on the instant reality which at every moment they offer to me. And recognizing that I know them by direct sight, previous to argument, I shall grow ever more convinced that all knowledge comes back for verification to this inward judge, which is at once subject and object, the foundation of experience no less than of thought. Upon such a certitude we can build everlastingly. Reject it, and nothing will stand against the suspicions of the sceptic, when he urges that after all we may be deceived.

I need not trouble, then, to decide whether Kant has dissected the mind accurately, or how it works, any more than I need acquire a theory of digestion before eating my dinner. Be the light of Reason a form impressed on it, an innate idea, or a power at first latent which comes into act under certain laws, these are questions for my leisure, impossible of solution, unless that light is true previous to any question whatsoever.

This primal energy constitutes man as man. We call him rational because he has the power of intuition, and is able to know himself as thinking universal principles which transcend experience; as willing what is right and just in view of them, as living his own spiritual life distinct from molecular motions. 'I am, I know, I can, I ought, I will,'—the self which is not nerves, not mere sensuous feeling, not an electric current, makes these declarations, being certain that they do express objective truths. No one of the facts thus enunciated is visible to the senses or can be detected by them alone. How does any other man know me, the intellectual reality which I am? By analogy from his own experiences, it is said; therefore, by the 'substitution of similars,' founded as in my case on intuition, disclosing his nature to himself. The multitude of such selves, primary each to each, distinct in their singularity, form together an intelligent world, the witness to any other existing outside it.

Is there any other? We find no difficulty in conceiving a universe of pure spirits, energising through the categories just named, thinking, willing, aware of their fellow-minds, and communicating by means of impressions the results of such energies. In an order

of being so delineated we move as freely as an eagle in mountain air. The act of knowing, the deliberate choice, the law apprehended by conscience, the memory of past good deeds done by the will and bringing satisfaction, or of past evil deeds accompanied by remorse, are not only familiar but most intelligible, and that to men and women who have never glanced at a page of philosophy. This manner of existence is truly ourselves. The senses feel indeed as they are moved ; but no combination of the senses will yield us an experience like this. Imagination, faintly reproducing colours, sounds, scents, or even the pleasure and pain these evoke in living organs, is utterly powerless to picture an act of will, a thought which affirms necessary truth or objective existence. Imagination, if we mean thereby the inward repetition of what the senses have noticed, is incommensurable with intellect, though serving it constantly ; just as language is not thought nor, in any proper meaning of the term, thought's image. Once the spirit has acquired notions by whatever process, it lives to itself, meditates, and chooses what it will, in a range of activity different altogether from sensation or fancy. It has individual substance, universal ideas. And of such spirits, incorporate in the body, yet immaterial, undoubtedly myriads exist ; it may well be, for untold ages have existed. Moreover a reality which thinks and wills, having these attributes and none besides, is perfectly conceivable as something whole and entire, which might be endlessly multiplied.

Given such a world of intellectual natures, we might be led to suppose that, if molecules in motion were also forthcoming, those otherwise separated intelligences could use them as instruments of

expression, and a sensible world arise to serve as language, or hieroglyphics, charged with meaning over and above that motion. Such molecules are, again, entirely conceivable, though somewhat difficult to the mind which, not allowing them to be mere mental impressions, can only describe them as real things, with dimensions in space, capable of the various energies and endowed with the properties which physical science registers, but incapable of self-movement and self-direction. Molecules themselves are not alive ; and to attribute consciousness or volition to them is entirely gratuitous or even grotesque. No reasoning will persuade our unsophisticated minds that the particles of copper and zinc in an electric battery have feeling or intelligence. We convey our thought by spoken words ; but words are only air in motion, and the air does not think. We write our meaning on paper, a vegetable product ; but, while thus a medium between souls, paper itself has no soul or sense.

The common judgment on this head is true philosophy, shared even by teachers who, in their schools, would fain argue that all things, including molecules, are in some degree conscious. Did we grant their view (which Spencer would not reject) it should follow that there is only one order of being, viz., the intelligent ; and that physics are a branch of psychology. But no man acts upon this idea or allows it to shape his life. And we are concerned only with what makes a difference to us. Even if we maintained that inorganic bodies were really alive, we should still be under the necessity of handling them as if dead. The two worlds can by no sleight of argument be reduced to one, whether we fix on mind or matter as

its essence. In practice we are always and everywhere Dualists.

So that common sense rejects Berkeley, who sublimated the visible order into impressions which the spirit received from God without matter intervening ; and it has never been satisfied to look on the soul as atoms in motion. But all we are at present contending for is this ; that a world of intellectual beings—call them with Leibnitz ' monads '—is a perfectly reasonable idea, to which no objection *a priori* can be taken. And that, if inorganic, lifeless elements exist, which we will not deny, there is no hindrance from common sense or science to our holding that these elements and those monads may be united in the living man. A harmony of acts and habits would then be truly pre-established by the two natures meeting to form one individual person. Where is the sin against light in this ancient theory ? We will examine the difficulties which are alleged in due course. But, if we go by internal testimony, the distinction between soul and body, corresponding to that between mind and molecules, is a fact of experience.

Harmony, not identity—parallels that never meet in one substance, however closely they correspond. How irresistible is the sense of this distinction we will show later on from the authorities in repute at present among physical philosophers, to whom it appears as unwelcome as it is manifest.

LETTER IV

MIND AND WILL ACT ON MATTER

My dear Friend,—Now it follows to enquire what Reason declares touching the relations which exist between me the Ego, the organism which I call my body, and the world-system outside me. To a physicist the body is made altogether of chemical compounds, and these again of inorganic elements which neither feel nor think. To them he applies his formulas, founded on the persistence of matter and the conservation of energy.

But what does my intimate knowledge tell me when the organism acts? Certainly that I am also, on innumerable occasions, the agent; that I am not merely a looker-on; that if I had not thought and resolved in a definite way the precise physical act would not have followed; and that I am, in consequence, answerable for it exactly as for the volition which led up to it, and which I know to have been its cause. How, then, does my will affect the nerves and control the muscles? That I do not know—neither does any living physicist or philosopher. Can it act upon them without violating the law of conservation of energy? It must, if that law is constant, admitting of no exception. But might there be exceptions? As an unlearned man, suppose I answer once more that I cannot tell; am I required to solve this

abstruse riddle before I feel certain that my will is responsible for my hand when I strike an aggressor? Which is the most evident to me, the law of conservation, possibly never broken, or my share as a moral agent in the deed done by my hand? The physical reasoner goes upon a theory and draws an inference; but I go upon my direct apprehension of having willed an outward something which has followed upon my willing. He must conform his theory to my facts.

For no reasoning will persuade me that I am only the spectator of a mechanical play, in which things are done, beneficial or harmful, that I did not cause by acts quite other than molecular motion. There is a somewhat fantastic idea, patronised by Malebranche the French philosopher, and akin to Berkeley's denial of matter, which would refuse the power of acting on physical phenomena to all but the First Cause. But here that is nothing to the purpose. If when I resolve to move my arm the Supreme Being interposes and moves it for me, I am still responsible; I could not be more so if I moved it directly myself. That is all I ask in order to connect the system of the visible universe with my real but invisible presence to it. In any case, I should have originated the series of spiritual acts to which another, not spiritual, corresponded in the world of sense and motion, not otherwise to have existed unless I had willed.

Mankind, with a certain impatience, brushes aside the Occasional Causes of Malebranche, as it smiles at Berkeley's Idealism. Somehow the senses act on the mind; the mind acts on the senses. It is enough to know so much; and we know it by 'self-intimacy,' beyond reach of cavilling. The alternatives are rejected as soon as we gather what they mean. We

never could grant that the ego, a passive looker on at deeds done in the body, was answerable for acts in which it had no part ; or say that not being their cause it deserves neither praise nor blame for their quality. ' The tongue swore, the mind remains unsworn,' said a character in Euripides on the Athenian stage, and, immediately the audience cried out in protest. So it will always be. ' It is my hand, my act, my heart,' said Bacon, acknowledging the confession of guilt he had subscribed. His heart—the immortal essence which by foul taking of bribes he had stained within. Imagine the scorn this great scientific genius and inductive philosopher would have heaped on himself, did he pretend that his earlier acceptance of gifts or later signature in confession had been necessitated by mechanical forces, which his will could not alter ! Yet nothing short of this would follow, unless (whatever be the laws which physical science lays down) the spirit governed the senses. That which thinks in us also wills, acts, and moves the organism in its normal state.

Let this also be weighed. The same reasoning which from uniform sequence and the conservation of energy infers that the soul cannot modify the course of a molecular series will apply (and has been applied) to mental phenomena. In both cases the scientific demand is for necessary succession, and the arguments are similar. If, however, we grant to psychology what mechanical physics have already claimed, see the consequences. On the one hand, my most intimate sense assures me that I am a living reality, the ground of all thought and feeling which I experience. On the other, as I am certainly not this one ' act ' alone or even this one single ' state ' which is termed intel-

lection or volition, and upon which others follow without regard to my existence, behold me reduced to a superfluous entity which has never acted, and to a subject without attributes. Do I not pass into a mere abstraction from these chains of phenomena? If I can do nothing, am I anything? But consciousness cries aloud that I am the self of which intellections, volitions, emotions, are effects and that I produce them, not they me. What shall we say, then? Surely that there is a flaw somewhere in the argument from uniform sequence to an Ego without active powers. That I am a true agent, eliciting from my inward self the acts in which I realise my existence. That if I can so deal with psychic energies and break no law of science, I shall be able to guide physical forces yet observe the true sequences of mechanism whatever they happen to be? One law is supreme; I must not contradict my intuitions or my self-certified knowledge in deference to any theory. For all theories do by those intuitions stand or fall.

It has always seemed to me unphilosophical to teach men that Nature deludes them with false ideas. If such be our condition, how shall we not turn sceptics when we discover it? And is there anywhere a race of human creatures which believes that it has no control over its physical activities? Do not all men feel convinced that the will resolves, the hand executes—that between resolution and performance there is a causal nexus? Can we name a philosopher who, the moment he quitted his study, felt differently on this subject from the common man? If passion had provoked him to take the life of a fellow-mortal, would it be in his power to decline responsibility, even in his own mind, because his will could not put a dagger into

his hands or mix poison in the cup? What if Macbeth employed this argument when Duncan's dead body lay before him? It would sound so far-fetched that we could not even laugh at it, much less take it seriously. Yet if there be no connection, as of cause and effect, between soul and body in these cases, Nature has befooled us in every moment of our waking existence.

But it is not so. Whatever the mind uniformly declares and the race irresistibly affirms to be true, is in accordance with nature and reality. Conclusions which run counter to this rule are false. Life, by its presence and its pressure, cancels them. If, outside his volume which denies it, the physical philosopher acts at all times on the view denounced by him as impossible, he confesses that his argument will not hold against his intuition. What more do we want who seek for practical guidance rather than the clearing up of metaphysical puzzles? We may not be in a position to resolve his difficulty. But we can live without resolving it. What we cannot do is to act upon the conclusions which he has drawn. We must judge ourselves to be real agents, with effective wills and jurisdiction over our members as long as they are not bound or paralysed. If these things be compatible with uniform sequence of physical phenomena, let it be so; if not, then such sequence, in the manner alleged, is a fallacious deduction from truths imperfectly comprehended.

To arrive at the conviction here set down is a great deliverance. We have learned thereby the duty of distinguishing between real necessities in thought which affect life, and speculative riddles masquerading under the name of science. The test is action viewed in the light of our intimate sense. Can I order my

existence rationally if I take the idea propounded out of books into the battle where, should it be false, I perish? Will other men allow me to go by it as a practical truth? Or will they judge me to be insane whenever I put it to the touch in any serious matter? I do not mean individuals here and there, or cliques and coteries, but men everywhere, including the very professors who have taught me the doctrine. Shall I listen to David Hume in his library, when to act outside it on what he says does not occur even to himself? A philosophy thus contradicted by life, however ingenious, has no claims on our assent. It is either sophistical sword-play or sheer unreason, and falls into the pit of scepticism where chaos rules.

Now we are convinced that as real things form an intelligible cosmos, in like manner the intellect which mirrors them cannot fail to be an ordered world, except by the perversity of its operations in apprehending or judging. Reason warns us when we deny our nature that confusion of mind will be the penalty. So it has been in the instance with which we are dealing. We know emphatically that we elicit mental acts and bring about changes in the organs of sense and the objects on which they are exercised. To destroy this testimony what does it avail that physical sequences are declared to be uniform? If so, there must be some way of reconciling the uniformity with a true causal influence of mind on matter; and, in fact, various explanations, by no means contemptible, have been put forward. 'An agency,' it is well said, 'need not be a force, yet can direct force.' But I resist the logic which would require me to lay down a theory free from difficulties;—yes, even insoluble difficulties might be urged, and need not unduly perplex me,—

before I assent to what my consciousness declares as true. Direct knowledge must precede the speculations of philosophers. It is adequate for life, and is the only information which most men have in their power. Clouds and darkness are round about it ; every beam of such knowledge reveals ten thousand problems, to few of which it affords a solution ; yet if direct certitude is not given, the reflex conclusions of thought in any shape lose all their value. I do not begin with philosophy ; I may never advance to it. But nature has taken care that I shall have a guide of life in the reason which bids me act.

For act I must. Not only am I a real agent in both worlds, the sensible and the supersensible, but I cannot help acting, though in what direction is largely at my choice. Here is the great first principle of the Practical Reason. As Voltaire insists with admirable clearness, ' Il faut prendre un parti.' And so Pascal before him, when he said that ' Nature confounds the sceptic,' inasmuch as a genuine doubter could not decide upon any course, and yet, unless he decided, the whole universe would speedily make an end of him. Life is not chiefly otiose contemplation, neither can it halt for ever between alternatives. Every moment in it is an act which tends towards a goal, ' Il faut prendre un parti.' If we say with Bichat, ' Life is the sum of energies which resist death,' or talk of the struggle for existence, or the survival of the fittest, we always imply that our condition is a march, a process in movement, and that it involves the idea of means and ends. Now the co-ordination of means so that they shall realise an end is called art. Therefore it has been said, ' the highest art is the art to live.' Not to live anyhow, at random, or in a Penelope-web

of contradictions, but successfully, stage leading on to stage, and progress moving to perfection. That is my task, its fulfilment my true destiny.

Two great and remarkable series of intuitions are given me at this height, parallel once more to the orders of sense and spirit which make my real world. I find myself under law and free to obey it. Free likewise to disobey, else I could not in my present stage talk of freedom. Amid the many ends which life sets before me as desirable, one is marked out as supreme. The will,—that is myself,—enlightened by reason, should aim at Right. What we call virtue is the law of my being, yet not a necessitating but a commanding law. It supposes me to be not only a real but a willing agent; and willing because I choose. Thanks to this amazing faculty I become a law unto myself; I mould into shape the possibilities lying hid in my nature; I develop or degrade the inheritance which ancestors have left me; I yield to my environment, or turn it to lasting advantage. In brief, I am my own Fate.

Such is the doctrine of ethical Monadism, as we may baptize it. No view exhibits man in a loftier light. He is under the law of righteousness and, by obeying it, makes it his own. Remark how the demand of Bacon is adequately met, and his saying verified, in the seeming paradox of a submission which turns out to be victory. As we reconcile the mechanism of the senses with the soul's guidance, so here too the opposites of law and freedom complete one another. Freedom is not anarchy; law is not compulsion, in the moral Kingdom which embraces and accounts for the universe. The supreme end is freedom to be perfect. By that alone we fix the scale of values. And

we recognise by the same vision our duty and our power. We cannot dissolve virtue into anything which it is not already.

Does it follow that our conscious acquaintance with soul extends to all there is of it and in it? That it conceals no latent powers waiting to be developed, or growing secretly towards the light? We must go by facts always. And the different states in which normally we exist—waking and sleeping, feeling, reasoning or willing—lead us to think of the Ego from unlike points of view; as something allotropic, in the language used by chemistry. The soul has no dimensions in space; but its faculties by their complex energies give a sense of corresponding richness, of depth below depth, opening into regions of the spirit not otherwise accessible, nor even guessed at, until we are newly and finely touched from that side. To file down this inward life to 'thinking,' as Descartes seemingly did, I have long fancied was much the same as resolving chemical activities into their formulas. Thought is a means by which the spirit contemplates objects; but its union with them is not a mere thinking about them. To say that we live in 'a world of ideas' is to imprison us, and we feel it so.

'We cannot get rid of the notion of the subject,' it has been well said; ideas are instruments only; but we demand to know and love living personalities like ourselves. With such other conscious beings we are concerned from birth till death, passionately cleaving to them or struggling against them in a way which the word 'thought,' and much more the congenial term 'idea,' is far from expressing. The vast human creations like poetry, philanthropy, religion in its thousand forms, social brotherhoods, crusades

—and how many more !—have given rise in their endless varieties to endless combinations of thought about them, because none could equal their range and potency as active human centres from which life was ever flowing. We require a term to bring out this attack upon possibilities by reality that makes to-morrow from to-day. It has been called the Will to Live, the Will to Power, the Impetus of Life ; in ancient mystic writings it bears the name of Love. It is creative in all directions ; it develops latent energy into act, needs into motives, desires into acquisitions. It looks forward in hope. As a living unit man displays this power, by which he adapts himself to successive environments and subdues them to his purpose.

But he also appears to be led in certain directions, even against his will ; ' l'homme s'agite et Dieu le mène ' is a devout rendering of history—shall we say of evolution ? These environments may be pictured as so many concentric rings from the body outward, as it is held together, organised, and managed by the soul, enlarging ever until they take within their ample compass ' the sun and all the stars,' or the whole physical universe known to science. But the inward man of the spirit, though uncompounded, is subject also to a growth from one degree of consciousness to another, building himself up stage after stage into a more ' definite and coherent ' individuality which we term character. He is one of a multitude, indeed ; nevertheless, not a mere similar among similars, but distinct and irreducible to the sameness of elementary particles, any one of which can replace any other. The seen human circle stands in relation to the spirit very much as visible nature does to the body. And

we cannot forbear to ask whether unseen circles of life, corresponding to the molecular, the electric, or etheric, do not surround the mortal groups and come in contact with our spirit by ways characteristic of them. Religion does not hesitate to answer in the affirmative. What has inductive science to tell us on a subject so deep and dangerous, but surely not to be put by? We will do our best later on to deal with the evidence alleged.

At present all I am suggesting is a query. The animating principle in us, which we have recognised as a self-conscious being, is allotropic so far as this, that it admits of several incomplete definitions. Call it life, and it will first be viewed as the active power which develops the human germ—a unit of protoplasm—into the human organism, and which controls the incessant flux of its particles so as to maintain during a given period the human form. Call it the soul, and it is then taken to be the principle of feeling, of sensation and sensuous perception, common to us with brute animals, not less than of the instincts and emotions to which the senses minister. Call it mind or intellect, it is the faculty by which we know truth, intuitive, and inferred; a light 'which never was on sea or land' but which springs up within us and reveals aspects of being unattainable to the senses. Call it will, it is the power by which we decide our action and proceed to act. These many exhibitions of a varied energy belong, we say, to one identical subject—in older language, to one spiritual substance, pervading the organism but at home in itself, partly submerged in sense and matter as a rock may be in the ocean, yet rising out of it into the region of pure intelligence and free will. All these powers it has;

and it may have more, hidden below the surface of the normal everyday consciousness. We require proof before accepting their existence ; we cannot deny their possibility.

The ascent of Nature to organisms, and the descent of life into those organisms, make man not untruly the centre of the universe. For he is the meeting-place of matter and spirit. Thus it is that he stands between two Eternities—the past which is summed up in him as its ultimate term, the future which begins with him a movement towards the spirit's more splendid manifestations. He is a link in an endless chain. If we could fancy a mind like our own, but so much greater as able to persist in unsleeping contemplation of the age-long process, it would appear to him (for we must not say to *it*) as a succession of disclosures or revelations, each more wonderful than the previous order while embracing its essential features. The marvels of astronomy would lead up to those of terrestrial chemistry ; these again to the vast series of formations in which life is manifested by organic structures and their fossil remains ; these to the human period with its vicissitudes of savagery, barbarism, and civilisation, the whole forming, as we say with the wise Greeks, a ' cosmos,' an overpowering adaptation of means to ends, of results to far distant causes. The ideal spectator could not be unaware of much that seemed like disorder, confusion, waste and failure. But he could never question the prevailing harmonies, gracious or terrible ; the tendency to an upward progress ; or the victory of man over Nature, sometimes by obeying and again by transcending the laws of mechanism. He would behold a Kingdom in which ' purpose,' or ' design,' or ' finality ' seemed to lend

the readiest explanation of its growth and advance. For he might follow, as we cannot do, its unbroken record, of which only fragments, though still having a certain order, come beneath our notice ; where we detect superficial connections he would decipher the most subtle and far-reaching ; perhaps to his illuminated vision the future that we dimly surmise would appear on a cloudless horizon, with outlines not to be mistaken.

But now we will suppose him to view the whole scheme as it displays the laws of mechanical motion, of ' measured phenomena ' in whatever combination, from heated particles to matter appearing as organised in moving bodies. And we will ask, ' Could this ideal spectator see life in the universe, so long as he made use of *this* clue and this *only* ? '

Let us try to be as clear as possible at this point. The answer that we seek is concerning the real world, distinct from the looker-on, not mixed in any way with his mind, but contemplated as outside him altogether. And the instrument or calculus of interpretation is the law, ascertained by experiment, of the conservation of energy, and inertia. Now it is another way of stating the same law to declare that energy moves in a closed circle ; that there is so much of it and no more ; and that no addition to it or subtraction from it ever takes place. Do then observations made upon it show the possibility of life being present in that circle, as a direct or collateral product of the forces known as mechanical? The answer is emphatically no. For if life were the equivalent of any part of energy, it would diminish the remainder ; the balance or the retort would show a loss that could not be accounted for in terms of the series; and the science of molecular mechanics would become

purely conjectural; in other words, it would no longer be a science.

Hence we conclude that our spectator, employing only the methods of pure physics, could not from their results alone discover that there were living beings on the globe, however long he watched the movements upon it even of organised bodies. For those movements follow the laws of energy into which Life does not enter as a product. If movement reveals life it is not simply by mechanical observation, but by some different method yet to be considered.

Are you surprised at my statement that life does not behave as a form of energy? The average man feels astonished when he is told so; for he knows with entire assurance that he, and not any strange power, moves his limbs, and how can it be if his will puts forth no mechanical action? He must wait awhile for the solution, which will perhaps not be wanting. But since I accept the evidence on which the conservation of energy is established as a law, life must stand outside it. If there is no physical equivalent of life—and there is none—then it cannot supply any portion of energy, great or small, to physics. It is not to be weighed in the balance, and the balance need not regard that which it is unable to register. Life then is not energy transformed. It belongs to another series transcending molecular mechanics, never resolvable into those forces, but essentially distinct from them by the whole breadth of its definition.

This I take to be axiomatic in all discussions touching the relation of life to matter, force, and motion. It must be admitted, from the nature of the case, by everyone who affirms a fixed quantity of these realities persisting under change in the mechanical

scheme of things. But scientific men without exception hold to that position. They cannot, therefore, in logic or in fact allow some totally different power to break into their series ; and just as little can they grant a transformation of energy which would not appear, so to speak, on their books. The whole of the matter and force registered at the beginning of an experiment must be rendered at its close ; under no circumstances short of a miracle could it vanish out of the system. We need not linger to demonstrate a principle which may be found in every text-book of physics, and which is not essentially modified by recent speculations concerning energy and ether.

But see what follows. If life can neither increase nor lessen the quantity of matter in motion upon earth, —nay, in the solar system and all others belonging to the same universe of energy,—can matter in motion produce life ? Evidently not. For it would have to transform energy into that which was not energy, an impossible feat according to science itself. The supposition that life is a glow or a steam, elicited by molecular agencies—an idea entertained, I am sorry to say, by the late W. James—breaks down on this law of conservation. But so do all materialist systems as long as they start from inert particles subject to Newton's laws, and from measurable forces moving those particles. For the doctrine of physical equivalence between such forces will hold good in every conceivable hypothesis. If you cannot get life into the series you cannot get it out of the series. ' Ether can be strained, matter can be moved,' says Sir Oliver Lodge ; ' I doubt whether we see more than this happening in the whole material universe.' But since life is something of which the activities proper to it

are utterly different from being ' strained ' or ' moved,' the conclusion adopted by the same writer is driven home to us, viz., that life is neither matter nor energy nor a function of them, but is—something else, a third thing in the Cosmos. To arguments thus formulated I have never seen a reply.

As we have arrived at one of the most critical stages in our exposition it will be advisable to quote from leaders in science whom no one can suspect of wishing to disregard its claims, the explicit acknowledgments they have made to the doctrine stated above. The words I shall recite are but a few samples out of many, and are within reach of the general public in widely circulated volumes. But first, let me premise one or two observations.

So far I have not attempted to define what is meant by life. We all apprehend its presence and are aware of its chief characteristics in the beings to which we refer as living—in plants, animals, and man. To plants we assign without controversy the powers of nutrition, growth, reproduction, and the movements of matter these powers involve, subject as above, though after their own fashion, to mechanical laws. To animals we ascribe all that plant-life has and does, with an entirely new set of faculties, viz., feeling, sense, and appetites, including a wide range of experience and quasi-intelligence in the higher mammals that we need not just now particularly explain. To man we attribute the whole general description of such lower capabilities, over which rises a new world of self-consciousness, reason, volition, self-determination. And we are willing to admit that the surface of personality thus exhibited may, or rather must, conceal deep gulfs of spirit, beheld perchance in fleeting

glimpses by genius, by revelation from a supernormal sphere, in moments of crisis and ecstasy. But life is always definable by some of the activities I have rehearsed ; not one of which can be derived from inert particles or the energies called physical. The origin of plant, animal, or man, as living, must be sought elsewhere than in matter. What is said of human consciousness applies, in its degree, to all the lower powers of vitality.

How complete is the admission made on this subject by scientific no less than metaphysical authorities, the following protest from one who rejects it will show. Mr. Lester Ward, an eminent American palæontologist, writes—you will bear with a somewhat long quotation for the sake of its very frankness : ' Most psychologists and also the world at large regard consciousness as something that differs *toto caelo* from all other things. They are scarcely willing to admit that it can be a natural thing at all. The testimony on this point is so nearly unanimous that it seems almost presumptuous in any one to attempt to stem such a current. It is not confined to persons of a theological bent, but extends to the most outspoken evolutionists, like Spencer and Huxley. But it is difficult to see why this should be so. It practically amounts to a recognition of discontinuity, and seems to me virtually to give away the whole evolutionary or monistic hypothesis. If at this particular point where psychic phenomena begin there is an absolute break, I do not see why we should find any fault with the introduction of any number of such external elements or factors, and there seems to be no reason for stopping short of the most arbitrary theological explanation of all the phenomena of the universe.' Mr. Ward declares, in spite of

'most psychologists and also the world at large,' that 'closely following upon the chemical origin of life we have the biologic origin of mind, for mind in the form of feeling or consciousness was only another step in attaining nature's great end, the higher organisation of matter.'[1]

You may always reply to this naïve materialism that it was no theologian who invented the laws and formulas according to which physical equivalences remain physical, under penalty of science losing its fundamental axioms. If life and mind were forms of chemical combination they would prove themselves such in the way that chemistry demands. As they do nothing of the kind, a break in the upward series, detected by methods to which physics afford but a subsidiary means, will require to be admitted, though Mr. Ward's idea of evolution should suffer, and with it the monistic hypothesis.

Now we will turn to our scientific witnesses. Professor Huxley said, '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 properties assignable to these two primitive factors. . . . This I apprehend is the fundamental article of the faith materialistic. . . . But all this I heartily disbelieve. . . . 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 matter or force, or any conceivable modification of either, however ultimately the manifestations of the phenomena of consciousness may be connected with the phenomena known as matter and force.'

[1] L. F. Ward, *Pure Sociology* (ed. 1903).

Professor Tyndall said, 'You cannot satisfy the human understanding in its demand for logical continuity between molecular processes and the phenomena of consciousness. This is a rock on which Materialism must inevitably split whenever it pretends to be a complete philosophy of the human mind.' And again, 'I do not think that he (the materialist) is entitled to say that his molecular groupings and motions explain everything. In reality, they explain nothing. The utmost he can affirm is the association of two classes of phenomena, of whose real bond of union he is in absolute ignorance.' Once more, 'The passage from the physics of the brain to the corresponding facts of consciousness is unthinkable. Granted that a definite molecular action in the brain occurs simultaneously; we do not possess the intellectual organ, nor apparently any rudiment of the organ, which would enable us to pass by a process of reasoning from the one to the other. They appear together, but we do not know why.'

Professor du Bois Reymond, speaking on 'The Limits of our Nature Knowledge' in 1872, said: 'It is absolutely and for ever inconceivable that a number of carbon, hydrogen, nitrogen, and oxygen atoms should be otherwise than indifferent as to their own position and motion, past, present, or future. It is utterly inconceivable how consciousness should result from their joint action.' And in an earlier passage: 'With the first stirring of pleasure or pain that the least complex being felt when life began on earth—at the first perception of a quality—that gulf was fixed over which there is no passing.' For 'the astronomical (or complete mechanical) view of the brain would show us no more than matter in motion. But not by any

imaginable arrangement or setting in motion of material particles can we build ourselves a bridge into the realm of consciousness.' In his defence of the same Essay, called 'The Seven Riddles of the World,' he quotes Leibnitz to a similar effect : 'I am convinced that no combination or modification of the particles of matter, however minute, could be the cause of perception; for we see plainly that the larger portions cannot be so, and in the smaller every process bears a resemblance to those in the greater.' The reasoning may need some amendment ; but Leibnitz would hold to his conclusions even in our day of electrically explained atoms and the possible ether.

Lastly, we may cite Mr. Herbert Spencer, who tells the world in his 'Autobiography' that he composed his 'First Principles' touching the Unknowable in order to defend himself against the charge of being a Materialist. He gave his imprimatur to the following epitome of his own words which conclude Part I of that introduction to the synthetic system. They deserve to be graven on our memories, inasmuch as all other forms of Monism now current are founded on similar axioms. Thus, then, we read :

'The interpretation of all phenomena in terms of Matter, Motion and Force, is nothing more than the reduction of our complex symbols of thought to the simplest symbols ; and nothing more than symbols. The reasonings in the foregoing pages afford no support to either Materialist or Spiritualist respecting the ultimate nature of things. He who rightly interprets this work will see that though the relation of subject and object renders it necessary to use the antithetical conceptions of Spirit and Matter, the one is no less

than the other to be regarded as but a sign of the Unknown Reality which underlies both.'[1]

Summing up, we are compelled by the evidence now brought forward (which might be multiplied indefinitely) to affirm that, so long as material science takes for its foundation the persistence of matter and the conservation of energy, it will be impossible for a physicist without breaking those laws to include life among their results, direct or indirect. To borrow the language of Kant, though not its immediate application, the impenetrability of matter, its extension and other properties, can never be attributes of a being that has understanding and will.' Or, in the later words of Driesch (whom I did not consult until these letters had been planned and this part of our correspondence was ready for despatch), 'Our scientific discussion has shown us that the phenomena of life are not explainable by the concepts and laws we know from inorganic science, but that something new and elemental must be introduced by the science of biology.'[2]

Hence, that same science, I conclude, joins with philosophy, religion, and the commonsense of mankind in celebrating the funeral rites of Materialism, without hope of resurrection from the grave to which it is committed by logic and experience, by the laws of motion and the laws of thought. Its epitaph may be written in familiar phrase, 'earth to earth, ashes to ashes, dust to dust.' En voilà pour jamais !

[1] *Synthetic Philosophy*, Collins, p. 10.
[2] *Science etc., of the Organism*, i. 266 *seq.*

LETTER V

SCIENTIFIC MONISM A JUGGLE—ENTER LIFE

My dear Friend,—These confessions and authorities mark a decisive advance on the insolent dogmatism of the French eighteenth century with its 'L'Homme-Machine,' or explanation of human nature by the parallelogram of forces. Never again will the ear of mankind be so shamefully abused. If science declares the incompetence of its atoms and its vortices in ether (themselves hypothetical) to account for that most real thing which we term the conscious spirit, a victory of life over matter must be recorded. An everlasting victory, unless the meaning of inertia and the laws of energy can be transformed in essence. But the myriad years of a past universe warrant us in prophesying that, as mechanism never brought forth life, so it never will.

Consider, my friend, the strength of a testimony so wide-ranging, so unanimous, so liable to have been overthrown by one single experiment (if it were false) among the thousands which take place in our laboratories, or by observation at any point on the earth's surface. Think how the class of men represented in controversy even by the Huxleys and Tyndalls—not to speak of the Haeckels—would rejoice at any remote sign that dead particles following the laws of motion were likely to produce a microscopic facsimile

of live protoplasm. Call to mind Huxley's exploded legend of the ' Bathybius Haeckelii,' which turned out to be a compound of gypsum. Follow, if you can without bewilderment—I seldom can—the endlessly ingenious devices by which a pure Darwinian explains away design in living structures, so that the Master himself started back at times from his own too complicated fancies. And judge whether life would not have been ' dismissed with costs,' had a flaw shown anywhere in the gateless barrier that separates it from the not-living.

You cannot disprove a negative, say the logicians, except by demonstrating that it is a contradiction of what is known to be true. We have seen that while the laws of physical science hold it would be a contradiction for matter to beget that which is not matter. We have challenged the Materialist to find an example of it, in the past eternity that he would fain ascribe to his idol. And the verdict, his own friends being judges, declares the passage from physical to psychical ' phenomena ' unthinkable.

We will take that to be so, and draw conclusions. Never let it be said then, by men who have borne this witness, that changes in material combinations, even of the brain or the nerves, are ' causes ' which produce feeling, sensation, thought. They may be ' conditions ' or ' occasions,' but the only true and adequate cause is a living power, not physical, not chemical, to which brain and nerves furnish instruments. This rule is absolute. ' It is the mind that sees,' said Plato, ' not the eye,' meaning, of course, that the structure by which our vision is conditioned, though perfect, would leave us blind but for the vital power informing it. Every such action, from the most elementary pheno-

mena discerned in protoplasmic movement to the loftiest conceptions or creations of mind and will, is due to this efficient principle, which controls after its own laws the manifestations of matter subject to it.

Therefore no disciple of Professor Huxley (if any there still be) must permit himself the inaccuracy of saying, as his master did, that 'material changes are the causes of psychical phenomena,' since the psychic lies entirely outside their sphere. He must refrain from boasting that 'the progress of science means the extension of what we call matter and causation, and the concomitant gradual banishment from all regions of human thought of what we call spirit and spontaneity.' For such boasts, as the reader who listens carefully to them will find out, are 'palterings in a double sense' with language and experience. If science recognises 'matter and causation' only, we are brought back to the laws of inertia, energy conserved, and motion begetting motion, which have no reference, one way or another, to the regions of human thought 'constituted by spirit and spontaneity.' As well might we say that 'the extension of the printing-press to all species of composition means the concomitant gradual banishment from them of poets and poetry.' Such talk is worse than illogical; it is the sophist's legerdemain which 'takes the word and makes it of two colours'; deliberately pretending that 'what we call matter,' acting as matter only, can produce effects outside these properties, because it is, while described in terms of extension and motion, really something different, and so capable of the effects in question. Could any juggler of the market-place improve on this substitution, by means of an innocent phrase—'what we call matter'—of one thing for another, to lead his audience astray?

Neither, again, will the following condensed paragraphs from Mr. Spencer's 'First Principles' stand a moment's scrutiny, so long as we remain true to the science of dynamics. 'The law of metamorphosis,' we are taught, 'which holds among the physical forces, holds equally between them and the mental forces. Those modes of the Unknowable which we call motion, heat, light, chemical affinity, etc., are alike transformable into each other, and into those modes of the Unknowable which we distinguish as sensation, emotion, thought; these, in their turns, being directly or indirectly re-transferable into the original shapes.' Allow me another familiar quotation from our school-days: 'Hoc Ithacus velit, et magno mercentur Atridae.' If only the philosopher of atoms could exhibit a chemical equivalent added to his store by the decomposition of thought! But, then, thought would be compelled to appear regularly among the sources of energy, and it never does. It would be a *Deus ex machina*, multiplying force and doing work, precisely as the descending waters of Niagara Falls generate electricity. This all sounds ludicrous, and so it is; but if Mr. Spencer did not mean it he had no meaning. Where did he behold feeling transformed into a physical shape? Or sensation acting as chemical affinity? Were the 'tears of sensibility' a compound made up in so many parts of oxygen, hydrogen, and emotion? But the sophism, thanks to Mr. Spencer's uncompromising language, stares us in the face. He should not have said that 'physical modes' of the Unknowable are metamorphosed into 'mental'; for that is a thing which never happens; but that, granting his philosophy, the Unknowable that sometimes manifested itself as heat and light appeared at other times in conscious-

ness, as emotion and thought. The passage from mode to mode is an unwarrantable assertion. Even if we maintained that all reality is at last one substance, still it would not follow that all its modes are identical or convertible. They may be for ever distinct, as in the system of Spinoza. Hence these portions of Mr. Spencer's metaphysics become a blank page unless they are to be the memorial of a contradiction refuted elsewhere by their author, and simply overthrown by experimental analysis.

We shall always reply with T. H. Huxley himself to loose talk about 'metamorphosis' and 'transformation,' that 'the properties of living matter distinguish it absolutely from all other kinds of things, and the present state of knowledge furnishes us with no link between the living and the not-living.' Or again with Mivart 'That there is an absolute break between the living world and the world devoid of life, is what scientific men are now agreed about—thanks to the persevering labours of Pasteur.'

All who discuss what matter can or cannot do, must agree in defining it; otherwise they will never be able to join issue. Now physical science understands by the name those realities which, as above described, are inert and subject to the laws of motion. Nothing else and nothing more. Then these men are requested to tell us how mind is related to matter. They reply, if modest, that they do not know. But if believers in Monism, they say, first of all, that matter produces mind and is its sufficient cause, so that none else need be postulated. The universe is therefore all of a piece, one continuum, of which a persistent measurable quantity of extended particles, moved by an equally persistent measurable amount of energy, is the substance

and the sole explanation. This they describe as the system of Nature, beyond which there is nothing known. On the other hand, these same teachers declare that mind—the individual, not any universal mind—cognises matter only as a form of itself, by inference from its own sensations. Thus we learn that X is the cause of Y, and Y is the cause of X ; upon which pivot the system revolves its ever-turning wheel. Is the original reality mind ? Or is it not-mind ? The school I am considering answers that it is either, according to the tactics needed—in assault, not-mind ; in defence, purely mind. The ' subject ' is a ' phenomenon ' of the world ; the world is a ' phenomenon ' of the subject ; and both are symbolic or illusory forms of a mystical unknown.

But experience is no fiction, witness the coherent results of which life and science give proof. And first principles, universal and necessary, must be real ; how, otherwise, could we judge that any appearance was a symbol of something else ? Criticism of the mind by the mind is the sole, as it is the sufficient, test which we apply to all our knowledge, to the universe outside us and the spirit within. In that sense, mind is the Alpha and Omega of being. But it is itself real with an objective reality beyond cavil ; not a mere ' idea ' floating in the void. If matter, energy, and motion make up the concept of ' Nature ' to the physicist,—or, as Driesch puts it, if ' we call Nature what is given to us in space '—we must look upon vital experience in its entire extent as Supernature and treat it accordingly. That is what I might do in these pages, after such unqualified admissions as we have heard from the champions of ' modern science.' Supernature, not as Catholic divines use the term (with perfect justice),

but to escape the eternal sophism by which an impenetrable fog has been spread over the whole discussion.

When life thus enters on its rights, two conceptions enter with it, undiscoverable in the dead universe we call matter—I mean the scale of values and the excitement of interest. Value and interest belong to this 'Supernature'; they are its tokens. They answer the question every sensitive and rational creature asks of all it encounters, 'What is this to me?' It is the question whereby we bring into a seeming chaos ideas, that is to say motives, like adaptation, purpose, ends and means. The uniformly diffused phenomena which material science grasps now serve as elements or details in a story; as the resistance to be overcome, not by other forces of a similar kind, but by the hero struggling with adversity, and conquering by his Will. When life comes in, art is born at the same instant. Moreover, a plan of development begins to appear in outline, a movement in cycles with ascending and descending curves, which involve a time-limit, known to mortals under the name of Death. How unlike are these features of our new Kingdom to the monotony that runs through inanimate Nature! Apart from life, it cannot be said to possess value, or to provoke interest. Is Nature, then, not an absolute end, but only a means to something beyond? We answer, yes, undoubtedly; and here we light upon the true significance of Idealism. Without mind what would the infinite spaces and all they contain be worth? Evidently, nothing; the idea of value cannot be attached to them as thus conceived. It never could have grown out of them. Hence the terror which they struck into the soul of Pascal. But, I say it boldly,

why need he, the thinker, have been afraid? If infinite space did not make, could it unmake him?

It has been most acutely observed that 'the only principle with which thought starts is its own nature; and this is no mere assumption, because an assumption is an arbitrary chosen alternative, and in this case there is no alternative and therefore no arbitrary choice.' In other words, thought must think, or it will not be thought; and it cannot be sceptical of itself. We may extend the same reasoning to life under whatever form. It must live because it is life; the categories of the not-living are to it neither cause nor method nor explanation. 'In every alternative that is capable of being expressed or conceived,' we may say again, 'which is to account for life, the mind already presupposes life.' This I take to be the primal truth denied or sophisticated away by all who would eliminate 'spirit and spontaneity' from the nature of things; all who, with Berthelot, the great chemist and friend of Renan, would reduce 'ideal science' to a pale reflection and constantly dwindling inference by guesswork from the positive facts which alone constitute knowledge. But life is light in its source; and without life the universe would remain dark—*tenebrae super faciem abyssi*. To dream that, as Mr. Lester Ward imagines, the vital processes and self-conscious thought were devices *invented* by a power antecedent to mind, is an extraordinary perversion on the part of one who, but for his own mental activity, would apprehend neither ideal nor positive science. Life gives to the world-forces a definite direction. Once granted, it explains their 'whence' and 'whither.' The alternative is not any other scheme of knowledge but blank ignorance, compelling men to give up

the possibility of shaping their course to definite ends.

Living protoplasm 'exhibits infinite diversity of character'; no two kinds of it are homogeneous; but nothing else has ever produced life in human experience. It is a unique though complex substance. But what is that which directs from within this 'primal and fundamental form of life,' as Huxley termed it? What is the power by which organisms are woven, maintained in activity, and reproduced? The whole reason, or intelligibility, of these continual adaptations, peculiar to life, must be sought in the design. Organisms display all the characteristics of works of art, and that to a degree not approached ever so distantly by human inventions. Life is a supreme artist, employing the elements as raw material and educing from their combination its effective instrument, protoplasm, by which to execute a foreseen purpose.

Will you keep the distinction here applied to our problem, between art and science, steadily before you? It is ancient, but it grows not old. Plato has it and St. Augustine, as well as Voltaire, Hegel, Schopenhauer, in their several ways. Science, for my immediate argument, is a passive observer, not interested save to know the laws which it ought to lay down. Art is dynamic, profoundly intent on creating that which shall have a value, on realising its hope and enjoying it —to-morrow, when potency has become act. It moves as if inspired by a Platonic idea towards some desirable end. No inanimate force aims at perfecting its condition in a future state. But life and art drive continually at something achievable, not yet achieved, whereby they may come to self-expression. It is only now that the word 'Ideal' gets a meaning. There is

here an objective, irreducible cause, an 'internal nature,' or principle, 'which determines the succession of all the parts of the same whole.' Hence those parts become, in view of the design to be realised, ends and means reciprocally, which is the account of an organism, whether we borrow it from St. Paul or from German philosophers. One idea pervades the details and binds them together so as to show forth or awaken a reflection of itself in and through the material selected. The picture, poem, sonata, translates it into art. And every living thing is such a visible harmony, of which the secret is purpose. If it involved no purpose it could have no significance—that is to say, neither interest nor value. All tendencies must tend somewhither. And life, like successful art, proceeds in definite directions, to the establishing of an ordered world.

But how can we detect purpose in things? Let us reply at once that it is not simply by knowing but by willing; that we have experience of willing in ourselves; nay, that only by willing do we continue to live in the world of sense from moment to moment. 'I think, therefore I am,' requires to be completed by the formula of action, 'I will, therefore I shall be.' Taking a side glance (no more just now) at certain vast philosophies of religion like Buddhism, we note how they declare that the extinction of will or desire, if attained, would be Nirvana—non-existence absolutely; from which the inference follows that will is the most energetic, as it is the most necessary, of concrete affirmations. Now, what is will but purpose in action? The elements have no will; such, at last, is the true definition of inertia. Life, moving of itself towards realisation of potencies into effects which display its hidden treasures, cannot be construed as other than an

appetency ; it wills to be all that it ought to be and chooses the fitting means.

From which again it follows that the alternative to will, in Lucretian or other physical hypotheses, can be merely negative—that is to say, no true alternative at all. For ' chance,' or the undesigned concurrence of powers not previously related, is neither an efficient cause nor an idea which explains anything. ' It happened by chance ' signifies that we do not know how an event came to pass, while admitting that some account of it is necessary for the mind's satisfaction. If chance equals contingency, it is a negative idea.

Whatever ' happens,' then, is an effect related to a cause, hence termed in Greek philosophy ' efficient ' ; but the connexion between them not being one of sheer identity, we must always ask not only ' how ' the one produces the other, but ' why ' it does so. What is the end of such production is an enquiry not less legitimate than what is the power engaged in it. As I said before, if things have a meaning they cannot but have a purpose ; or, again, since the cause acts in one definite direction rather than in another, and if it acted in all possible directions at the same time it would effectuate nothing, an end is prescribed to it by the nature of reason and reality. Deny this, and movement becomes not only a mystery but a contradiction. Hence we conclude with Aristotle that ' material causes are simply the means and indispensable conditions of phenomena ' ; that ' above them stand final causes ; above material necessity the design of the universe ' ; and that ' the teleological explanation is needed to complete the physical.'

I am giving you a bit of pure wisdom, couched in old Greek terms, at which the modern agnostic or

materialist looks askance. What is the final cause of his transcendent disdain? It has one, you may be sure. Is it not this, that efficient causes without purpose in them, and therefore blind, leave the physicist lord of the world? Whereas, if direction involves design, and there cannot be design where there is not will, the whole scheme of things is suddenly lit up with intelligence, appears as the subject-matter of an Art, the instrument and expression of a Mind, before which adoring homage is the sole attitude that befits all other minds and wills? Grant an overruling purpose and science becomes Religion. Then the supreme Power is Love; the universe is an action, a drama, moving through scene after scene to its great close in reconciliation of opposed elements and characters struggling to realise themselves, yet all the while guided on to divine issues. The laboratory is then a temple, the experimental philosopher a priest, the metaphysician a prophet, for God is seen to be 'the absolute end of the world.'

We have travelled fast and far, you will tell me, from our streaks of protoplasm colouring the edges of the sea-foam on primitive rocks. No doubt; for in every beginning the end is already present, itself not moved, neither working as an instrumental cause, but giving coherence to the whole and its place to each part as developed where the plan asks for it. Between the rational will—mark my epithet, we shall want it again—and the matter upon which it stamps design, there comes to light a pre-established harmony, otherwise no effect would follow. Mind and Will are at home in Nature, even while they work beyond it. Wordsworth has finely touched this sense of confidence in things apart from which our activity would be consumed

within the spirit, whereas now it subdues all that is visible, yea, the very light from farthest nebulas and immeasurably distant star-clusters, to its purpose. The poet bids us ' wonder not,'

> If high the transport, great the joy I felt,
> Communing in this sort with earth and heaven,
> With every form of creature, as it looked
> Towards the Uncreated, with a countenance
> Of adoration, with an eye of love.

In these verses we may find something to remind us of Aristotle's word, so remarkable as coming from a cool unimpassioned intellect like his, that ' God moves the world as the object of its desire, and that which is moved by it gives motion to the rest.' Again, when science declares itself to be founded on the uniformity of Nature and from the past infers the future, not as conclusions from premisses, but as realities from realities, what can this mean except that there is order outside corresponding to principles within—order which we elicit from things and do not simply put into them ? But the pure *idea* of Order is only a conception ; it is not a power. What power is it that upholds the uniformity of agencies and laws on which science, like our daily life, relies ? It must be one, as Aristotle said, superior to physical causes and controlling them ; for these causes are indifferent to the uses which they fulfil ; they cannot shape the scheme wherein they move. They cannot shape themselves. Upon what lines a current of energy shall travel is determined neither by its constitution nor its mere position ; it will yield the same quantitative results to whichever point of the compass it may proceed. The reason for its actual movement lies outside it. Of course it does, else we should be denying the

first of Newton's Laws and overthrowing the science of dynamics. But since it is impossible to grant an infinite series of bodies moved by other bodies, none of which is self-moved—I pause that your own reason may draw the inevitable conclusion. . . .

To me it appears as certain as it is overpowering.

All the series of energies that ever were, material and etheric, let them move from whatever point in the illimitable past, depend for their activity, potential, kinetic, through its uttermost range, on a Mover that is Himself not moved, a Mover that transcends these categories altogether. Not an effect among effects ; not a secondary cause, but one that sustains the system, wide as the universe, of secondary causes, all of them woven into a cosmic web, as they are severally guided. This order of the world declares the unity of Thought by which it was conceived, and which men call the reign of law, that is to say, of reason at one with itself. Its reality proclaims the dominion of a Will never less than victorious, for by virtue of that Will things stand to do their office, crying out as in the prophet's vision, ' Here we are.' The persistence of matter, energy, and life bears witness to an enduring Power above them, to a purpose unceasingly fulfilled from of old, to Him concerning whose timeless age it was said, ' Thou art the self-same, and Thy years shall not fail.'

Silence, musing on that which is too great for our minds, but which overflows the heart with joy, is the fitting Amen to this Credo.

LETTER VI

PURPOSE AND PROGRESS—TIME, SPACE, RELATIVE

My dear Friend,—That will, and consequently purpose, in man is not an illusion we know with as clear a certainty as that we think our own thoughts. And that our inward purpose, acting for an end, can achieve something outside our minds there is the existence of society with its marvels in every order to prove. Purpose, then, or design, is most intimately bound up with reality ; we are a portion of objective being ; and that which we do belongs to the nature of things. There is no contradiction in the fact or the idea of purpose ; it is given not less evidently among other elements which go to make up the world than mind and matter. Ends or motives demand recognition as do efficient causes. But since they vindicate a place to themselves in man's economy, why should it be refused them when we are searching for a reasoned story of the universe ? Let the hypothesis of design, with a sovereign Will to execute it, be at least entertained ; and let us watch if it will throw light on problems otherwise confessed to be insoluble.

If, standing perplexed before 'the burden and the mystery of all this unintelligible world,' we were offered such a key to it as design revealing intelligence where we had not seen it, by the action proper to themselves of ideals realised, should we cast it from us

on the ground that it revealed too much? Efficient causes leave things unintelligible and make of humanity an enigma, so long as they remain dark; how is light to come into them? The laws of their working do not satisfy reason unless, or until, we know the ends for which they work. This deeper knowledge alarms the physicist who dreads that his laws are going to be taken from him. But, as we certified him long ago, his dynamics may be allowed their course and their persistence as instruments in the hands of superior agents, by whose wisdom they are controlled to effects which display this double causality. Why not? I recur to my favourite illustration. A volume of poems is lying before me. Paper, ink, types, printing-press, account for it as a material phenomenon; there is nothing in the book for my senses which these causes have not produced. But for my *sense* there is something that they, left to themselves, never could produce —the poet's intended meaning. It is all one to the paper, ink, types, and printing-press whether they shall be combined to exhibit any meaning or none at all; they are just as real when unrelated as when the poet marshals them to his design. But it is the poem that gives them value for art and life. May not the universe be such a poem in action?

Newton said 'hypotheses non fingo'—his conceptions were founded on intuitions of fact. In like manner it is fact, and not hypothesis, that will working by intellect shapes results; our lives are at once adventures in the unknown but also governed by our intentions, which at any rate 'rough-hew' the stubborn material as we fancy it should be handled. 'Fate and free will,' according to the German proverb, *Schicksal und eigene Schuld*, come together in the event, or

character and circumstances ; but the choice of ends and means by us the actors is self-evident to consciousness. In applying this experience, repeated every hour since men ripened into deliberate agents, to the phenomena which living creatures present, we start from known antecedents and go by analogies resembling each other in minutest detail on the physical side. All things except our conscious selves we study in this way, by what may be termed the substitution of similars. Thus, when will and design account, as they do, for everything in my own career as a free agent, why should I not interpret other men's conduct on an identical plan ? I must, indeed, if I would not be taken for insane. Now what is the upshot of this method ? It is that I add the key of personality to the key of energy, and with both conjoined I attack the doors leading into nature's mysteries. For personality, in modern language, equals ' the subject that thinks and wills.' Will is more than thought ; but thought dwells in will ; each is an aspect of one subject, wherein they are distinct yet not divided ; and each uses the other and the whole organism created to do the spirit service.

I feel embarrassed in selecting from the many paths of reflection which start at this point. We may look back, however, to a seeming path which has now been proved a blind alley—I mean the ' assimilation of man to things,' or to matter and its energies, in the hope of analysing him to his elements. That false course must be given up. Personality is real and aboriginal. It is possible, let us say, to ascend from its lowest grades to higher and higher, to enlarge its bounds, to consider it as everlasting and the perfect Self-Consciousness. But never, in sound reason or

with due regard to fact, will science make it out to be less than itself. And now I see my way.

This personality which I am, which you are, is it exhausted by what our everyday thought knows of it? The outer world has, with experience, grown deeper; new sciences spring up from the problems left over in all directions by the laws formulated in previous generations; and others will rise out of the more recondite knowledge our own period has acquired. But if man's mind cannot yet equal the subtlety of Nature, has it fathomed its own deeps? And if not, the hidden Ego transcends the states of consciousness with which we are acquainted, by indefinite prospects yet to be explored. A simple but telling expression for this view would be that 'Genius is latent in every man,' or as Wordsworth held:

> Through love, through hope, through faith's
> transcendent dower,
> We feel that we are greater than we know.

On these two most fascinating topics, as your memory will recall, *plenus sum verborum*, they hold and inspire me. But let us guard against misprision of our views. I assume (with justice after all we have said) that the outer world is real and the Ego a substance. I grant nothing to Idealism except the concession made in general by St. Thomas Aquinas, 'Quidquid recipitur secundum modum recipientis recipitur,' and 'Mens quodammodo fit omnia'—which we may render as the direct and converse statement of the same principle, 'Thought is the universal form,' and 'All things becoming objects of thought submit to its laws and conditions.'

Now, the visible world apprehended by our senses

is virtually multiplied according to their number. But beyond our actual senses the spectrum of light extends indefinitely ; the vibrations of air become audible only when they attain a certain pitch ; all sensations imply a momentum gained by stimuli below feeling that reach a certain intensity ; and we thus stand on a plane above and beneath which are ranges of experience unknown to us save by logic or mechanical devices. We have no sense for magnetic currents ; none for the atomic movements of a gas ; none for the separate waves of ether. We see light and hear sound ; but their elements we do not grasp, as other beings might, severally. Hence, it may well be that ' as many planets so many different worlds of sense ' ; and now multiply this possibility in all the solar systems discerned by telescope and sidereal photography. But never forget that the objects thus variously perceived are not fictions of the mind. They are neither hallucinations to which we fall subject, nor illusions we make for ourselves. But the laws of sensible perspective govern both the seer and the seen. On one side there is a ' minimum of sensibility,' corresponding to an ' organic basis ' on the other ; and this constitutes a limit to our perceptions. As Kant observed, we have no means of determining whether the sensible intuitions of all beings throughout the universe are like our own. Or rather, since Kant warned men of possible differences, spectrum analysis and scientific acoustics have made it clear that such intuitions must vary according to the apparatus which conditions them.

At every degree of condensation, therefore, we may imagine the world of matter to be penetrable by a finer current, as a beam of light traverses the pane of glass that is impervious to the most delicate gold wire,

however drawn out. By analogy, the ten thousand senses, of which the existence is conceivable in world-systems scattered through and beyond the Milky Way, would act as if each alone found its universe ; and all might move in the same spaces without collision or even reciprocal acknowledgment. I am reminded here of Avogadro's law—the equal diffusion of molecules in equal volumes of gases under similar conditions —with its demonstration of interstices between which other gases may find room almost indefinitely. There is no reason why these many worlds should not practically coincide, yet remain each distinct ; and since all matter is radiant, we might perceive the passage of one kind through another as if that other were not there at all.

Perhaps you have come upon the curious theory of Le Sage, who explained gravitation by supposing a ceaseless rain of very minute extra-mundane particles, pouring from every side through the cage-like structure of ordinary matter. It will serve to illustrate my point. As from touch to sight we remark a gradation of refinement and an enlarging sphere of apprehension so we may continue the process until a universal sense emerges, capable of taking in as at one glance all the phenomena which extended substance could display. And between the two ends of the scale what countless ascending and descending powers ! Evidently, our five poor senses do not exhaust their objects. The world exceeds our consciousness.

But does not the spirit exceed our self-consciousness, to a similar, if not a greater, extent ? ' Know thyself,' said the oracle. Alas, we spend our life in the task and leave it undone ! Compare the infant born yesterday with Goethe, dying at the age of

eighty-three, after he had filled a hundred volumes, all in some shape contributions to the autobiography which even this most 'objective' of moderns called 'Romance and Truth.' He had learned so much about his capacities and achievements ; but how much more was there not to learn ? This Goethe, the individual and not problematic 'thing in itself,' had his zones and atmospheres, his deserts, oceans, and fruitful pleasant regions, his stars overhead and storms in the heart, like some mighty orb incarnated as human and pulsating with a vitality that never stood still. Yet he could have expanded his life's chronicle into a second hundred volumes without coming to the end. As for the future and its possibilities, how significant is Goethe's exclamation when he watched the sun go down, 'Untergehend sogar ist sie immer die selbige Sonne,' sunset here is sunrise there, for the soul that has presentiments of what it can do, gained from that which it has done !

In a young child personality is present but latent ; when he begins to speak he does not for many months say 'I' ; he looks out, not in ; and his gaze tells you that reflection is yet to come. But in a mature man of genius—and he need not be a metaphysician—the individual is alert, self-centred, a sphere of thought and imaginative reason, utterly at one, with powers fathomless to spirits beneath him, which have not been added but elicited by experience. The soul has discovered its riches within. Its trial-stroke is often a master-stroke ; to be untaught is the surest sign of greatness in any art when the apprentice beats the professor. We feel it as a miracle in young musical prodigies such as the infant Mozart, in boys who, like Pascal, invent geometry for themselves ; in poets like

him that ' lisped in numbers ' ; and we ought to conclude that every man has the promise and the potency of an individual nature, lying dormant below the surface of sense and routine. This does not involve a multiplying of parts or substances in the soul ; for it is simple after a fashion not to be treated under the rubric which Aristotle named ' quantity,' it is one yet complex, diverse yet identical through all its developments. Its quantity is ' intensive ' or ' virtual.'

I hold that metaphysical doctrine. You will not now then be taken aback, if I go on to indicate some of the problems raised when we distinguish the surface from the depths of self-conscious being. I am prepared to accept the words of Kant, though not exactly as he intends them, that ' the clearness of ideas in my soul, and my faculty of apperception, have degrees which may become greater or less, without any substance needing to come into existence or ceasing to exist.' But let us proceed from the outer senses to the inner courts of the temple, and note every stage as we arrive at it.

The Platonic Socrates, in that very hard piece of discussion called ' Theaetetus,' proves that we know *through* the senses, but *with* the mind, ' or whatever we please to term it,' those objects which are proper to them. But what is the purpose of the senses ? Schopenhauer defined the body as ' Objective Will,' which uncouth phrase tells us, at least, how we may regard both feeling and sense, with all their fit apparatus, in the light of instruments whereby the individual seizes upon a world otherwise foreign to him. This is the lowest degree of life, appetite and sensation employing perception to furnish them with what may satisfy their needs. Ideas, as such, we do not find

here, but instincts translating themselves into discomforts and requiring to be soothed, while the end in view is to preserve or to continue the sensitive existence. Our senses, including even sight, are first of all practical means, not contemplative, as by an æsthetic training they may afterwards become. The ploughman drawing his furrow does not regard the beauty of the landscape ; Swiss peasants never lifted their eyes unto the hills before travellers wandered from afar to gaze on the snow-crowned Alps ; and descriptive poetry arises late in literature. Every man must will if he is not to die of hunger ; the world is his store and magazine ; it gives him the seed of fire, the cave which he defends as a stronghold, the wild creatures he feeds upon, the acre he cultivates. To these ends he employs his five senses, whatever else they may afford when the bodily appetites are still.

It is an admission of Tyndall's, remarkable as coming from his school, that the living organism is 'woven by a something not itself.' Be that something what it may, this we affirm concerning it : that it is not merely the chemical combination of elements in bioplasm ; that it differs in nature and qualities from the flux of particles which it controls from generation to decease of the body ; that it is permanent as a co-ordinating power in every vital process and in the whole structure made by it ; that it is indispensable to all the activities of the vegetative and sensitive life ; that it shows unity in plan exactly as an artist shows it in his work ; and that it does not seem to be impaired or lessened in itself by any disaster which befalls the living tissues. If it is not the organism it must be able by its own characteristics to account for all it

gives to the organism. Aristotle called it the 'form of the body,' which we might render in the Greek-English dear to science as the 'morphogenetic principle.' Driesch is very bold, and transliterates it from Aristotle as the 'Entelechy.'

I am moving, as far as possible, from the known to the unknown; therefore I consider these phenomena, to begin with, in ourselves. Time was when this body of mine did not exist, but only the bioplasm out of which it has been formed. Before the arteries or muscles or nerves had come into being; before the brain and the senses, that 'something not itself' dwelt in the matter of life and took up the task it has gone on fulfilling ever since. I have conscious experience of much that it does; but much else escapes my inward sense altogether so long as I enjoy normal health. The vital, as distinct from the sensitive processes, are to me mostly unconscious; neither can I explain how they go forward. But they do, and not by dead mechanism, nor yet blindly; blindness cannot be thought of where design is evident. The morphogenetic principle either sees to accomplish the work set it, or is guided by a seeing power. The so-called 'Unconscious,' if what its name denotes, would be as incapable as mere matter to develop from its own resources a harmony of parts conspiring to a vital whole. Reason demands an adequate cause of evolution; but the 'Unconscious' is negative, therefore not adequate. If, however, it is only *we* that are unconscious (in the ordinary waking life) of our own operations, a door is left open into some other possible state of the soul, larger and deeper, in which these organic processes would find their elucidation. The hypothesis waits to be cross-examined.

We need not attempt to decide just now whether the animating principle acts directly on and through the bioplasm, or by means of some less material etherlike substance, such as Cudworth imagined. For the idea of a ' plastic medium ' is far more ancient than our acquaintance with Huxley's ' physical basis of life.' Under terms not now commonly intelligible, problems akin to that of Vital Force were debated among the Schoolmen, into which we can avoid entering. Should a distinct medium, a quasi-Spiritual ether, be put forward as the deeper ground of protoplasm, it would still require—only a step behind in the series—will acting by design to yield the adaptations we see. Given organism there is given a plan. That is our sheet-anchor in vital philosophy. The multiplication of ethers I cannot but suspect as taken over from materialism ; as, in fact, a sop to the imagination in problems where, at last, its lines and figures will not avail.

Many of our authorities would rather follow St. Thomas Aquinas in whose eyes expedients not dissimilar to the plastic medium were unnecessary and superfluous. Sooner or later we must ascribe the organising faculty to the soul that wills and thinks. What then ? Is it at once conscious and unconscious ? Are we not here gazing over the edge into unplumbed abysses where, more than ever, our duty bids us hold on to Reason with its intuitive axioms ?

Before searching into these hidden things, let us enquire if the senses themselves do not hint at their circumscribed or provisional nature. The life which they serve is subject to the forms of space and time, as present here and now to consciousness. The senses perceive neither past nor future. And in

grasping the present they measure space not less than time by the length of the sensations which give rise to perception. Quicken these and time goes quickly, while the feeling of space diminishes in a corresponding degree. Slacken them, and time slackens, adding to the felt extension of ground to be traversed. Annihilate them in deep sleep ; then time stands still, and space is unperceived. Curious experiences familiar to everyone might be quoted—short-lived happy hours in contrast with long-drawn moments of agony, have passed into proverbs ; the hundred years' vision that to the Monk Felix appeared but the length of the lark's song, and Rabelais' ' bad quarter of an hour ' when suffering splits up time into numberless instants, each full of its own heart-shaking throbs—an infinitude like the elements of an atom searched by electricity. We, more than any men before us, feel and say how small is the world, how swift is life ; and the reason we know. Modern times are quickened, space shrinks to our feeling, because we multiply impressions at unheard of rates and devour distances by fresh means of locomotion, by flying, broadcasting, television. The planet has become to us another in value and interest, that is to say, really, than it was to our forefathers. This follows : that each individual has always found time and space relative to his experience, variables, not absolutes ; so that he is what Protagoras called man, ' the measure of all things '—but to himself. Motion, time, space, the forms under which material energies reveal their phenomena, will thus be confessedly subject to the spirit, as to an enchanter who can lengthen or shorten them at his good pleasure.

LETTER VII

SLEEP AND DREAMS: A DEBATABLE LAND

My dear Friend,—My succeeding step takes us into a Debatable Land—the land of dreams. How extraordinary it is that philosophers, who should try all things and hold fast that which is good, have seldom set foot on this Continent in their waking hours, though when sleep comes all visit its shores. The Columbus of this old New World seems to me Schopenhauer, for which alone he would deserve statues. I do not imply that the literature of dreams is merely recent or small ; quite the contrary. Myself I have consumed libraries dealing with the Nightside of Nature, but as anecdotes, religious or medical or simply amusing ; and until Schopenhauer arose, a master in Israel, one-third of human existence lay neglected, as if it were a lumber room, in which there was no order, but everlasting darkness brooded over it. We are now hearing of psychical research ; hypnotism no longer is banned as an imposture by the Faculty ; clairvoyance and telepathy suggest problems that require some more reasonable solutions than the coxcombs' grin which vanquished Berkeley. The world of sleep invites conquest by thought. It is a world of life, not to be mishandled or explained away on the mechanical scheme that we have already put from us. It is normal, for all that lives on earth sleeps (are there

ascertained exceptions?) including plants as well as animals; but normal with differences to be made out by observation. Its negative condition is, to speak at large, twofold; the absence of the sun or of daylight, for whatsoever dwells on the earth's surface, and the suspension of the senses' activities due to that absence. Sleeping and waking have been aptly compared to the scales of a balance—one of which goes down as the other goes up. They are alternates; but we have many questions to ask touching their relation to the vital principle, extant and active in them both.

What materialists understand by sleep and dreams I will hardly stop to enquire. Sleep is not simply cessation of the day's work, for in it are continued the vegetative processes without which life would come to an end. Something in us therefore is always awake, busily weaving tissues, muscles, nerves, feeding the brain with nourishment from its stored-up reserves in the system—the Will to Live, certainly, but individual, not any 'soul of the universe.' It acts, and it appears to dream. The outer world is not there; an inward world opens. Between inner and outer students recognise, since Fechner invented the term, a 'threshold of sensibility' which may be displaced according as phenomena rise above or fall below it. The tide ebbing and flowing on an open coast represents it visually. Morbid symptoms while we are awake will bring over it a knowledge, local and precise, of organic operations which the healthy do not feel. A swoon, or absorption in thought, in joy or grief, will take away advertence to external facts. The unstable threshold is plain to be seen in disease, in genius, in ecstasy, in insanity, and it exists in all men. That

which we distinguished some pages back as the 'minimum of sensibility' is nothing uniform; it varies in each of us during our growth and decline, as the glass goes up and down according to the weight of the atmosphere. You see how often I insist on this category of change, but so does Nature; 'never continuing in one stay' is our condition, yet with a permanent ground beneath all our mutability.

Dreams, when we first view them, spread before us a scene of the wildest confusion; but is it much more incoherent than waking life registered by experience alone? Reason brings its distinctions and laws to bear on the external world, not entirely without success; why not on the internal, which cannot be simply chaos? We might begin, as the Greeks did, by sundering all visions of the night into those which appear to be significant and those wherein no connected action is discoverable. I say action advisedly. Our dreams are dramas, even if the sleeping subject feels himself passive, as when oppressed by nightmare, he is yet the actor, manager, and author into the bargain, of the representation from which he suffers, though its occasion may be physical. The idealism of Berkeley is well exemplified in dreams, from whatever source derived; they are symbolical imagery, and not the 'thing in itself.' Now, you will remember the expressive difference marked by Æschylus in his 'Prometheus Bound'; in English thus:

> I was the first to judge among their dreams,
> Which was the vision true.

In the Second Book of the 'Iliad,' on the contrary, Zeus despatches to the slumbering Agamemnon a 'deceitful dream,' which appears to the 'King of

Men' as Nestor ; and we read the same distinction in very well-known lines of the 'Odyssey,' in Pindar, and in Plato's divine prose. It belongs, therefore, to a deep region of Hellenic beliefs or speculations. I could illustrate it further by folklore among many peoples, were it my intention to conclude from widespread modes of thought to their reality—a good argument if one knows how to extract gold out of dross. But I am using these quotations merely that we may light upon some Ariadne-clue in a most perplexing labyrinth. Dreams will, then, possibly allow of separation into visions with a purpose, and accidental remainders from the waking day. Some may be illusions, not sent down by Zeus, but provoked by physical or mental discomfort, and hollow reflections of it. Others, if so be, have upon them tokens not decipherable unless we grant a design connecting their incidents, but when so treated they may prophetically answer to a future which they shadow forth, or even help to bring about. Baconian induction will be no more out of place here, since we are dealing with experiences, however strange, than it is elsewhere. The leading and decisive question is, 'Do they happen ?'

Now it is time to remember the mocking sentence let fall by Hobbes : 'When a man asserts that he saw something or someone in a dream, he tells us that he dreamt of this.' Hobbes is always the devil's advocate, a person of priceless worth to philosophy, which addresses critics and sceptics rather than believers. The antithesis cleaves the mark. A dream must be verified by satisfactory tests, like any other claim on our assent. Have men had verifiable and verified dreams, telling them what was hidden or

announcing what was to be? In other words, can we point to such visions as giving knowledge that the sleeper did not possess, or was unaware of his possessing it? For we are much concerned with latent powers, if they exist, when we would answer the riddle, 'What is man?'

'The machinery for dreaming in the human brain,' says De Quincey, 'was not planted for nothing. That faculty, in alliance with the mystery of darkness, is the one great means through which man communicates with the shadowy. And the dreaming organ, in connexion with the heart, the eye, and the ear, composes the magnificent apparatus which forces the infinite into the chambers of the human brain, and throws dark reflections from eternities below all life upon the mirrors of that mysterious *camera obscura*—the sleeping mind.'[1]

Dream has this peculiarity that it creates a sphere of its own over which it rules, like an artist to whom matter becomes plastic and wholly pliable. The sleeping dullard changes to a Titian who paints beautiful landscapes and rivals Sophocles in irony, pathos, passion, with a wealth of incident such as romantic drama must envy. If we could write as we dream, what a theatre we should have! By this feature the dream-state is akin to poetry; it seems more deeply seated in us than common understanding, which blinks and stumbles when shaken out of the rut where it plods along. Emergencies provoke genius to act; and our dreams abound in crises, with instinctive repercussion from the will to surmount them. Deliberation is not, apparently, the method by which consummate works of art have been imagined; the

[1] *Works*, xiii. 335, 'Suspiria de Profundis.'

poet, as Milton describes that which he knew so well, 'soars in the high reason of his fancy, with his garlands and his singing robes about him,' he flies while deliberation walks. Mozart tells us how the single themes of his musical compositions crept into his dreaming moods until, as by a flash, he beheld and enjoyed the whole creation at once, themes and orchestration together making the harmony which he desired. Cardinal Newman's 'Dream of Gerontius' in its very title announces that it was given, not invented; and the author says of its origin to an enquiring friend, 'it came into my head to write it, I really can't tell how,' subjoining, 'I could no more write anything else by willing it'—he means deliberately—'than I could fly,' and 'I have set down the dream as it came before the sleeper.'

Dante's divine pilgrimage belongs, more than any work wrought by mortal pen, to this which Indian mystics name 'the place of dreams'; it is an acted vision or sleep-waking, which goes on its perilous way from Hell to Heaven. And is not the exquisite perfection of a 'fantasy-piece' like Shakespeare's *Tempest* due, in no slight measure, to its resembling a dream—'our little life is rounded with a sleep'—in which we contemplate a world hanging, as it were, in transparent ether? Shakespeare's faculty of vision accounts, I think, for the unrivalled distinctness that marks off his characters one from another. He satisfies the laws governing inward space and time, but space even more than time. Here is the secret of those true dramatic 'unities' over which critics have wrangled, mistaking them for phenomena of sense, whereas they are ideal, according to the strict Platonic definition of the word. Thus we may better conceive what poetry

aims at, as well as the effect produced by it. When it deserves the name, it lifts above the minimum of sensibility into visible shape and action powers lying *sub limine*, unrealised because 'overcrowed' by the day's tumult, and thrown into the shade, while glaring noon dazzles the market-place where men fight for bread. Darwin is the seer of this outer prosaic condition; we shall speak with him by and by; but prophets excel Darwin inasmuch as they pierce into the hidden causes of evolution, not viewing them in the abstract, or as accidental variations arising we know not how, but as working on a plan from within.

I am picking up these threads of analogy with a view to binding them, if possible, into a scheme; for they do not suggest random hits of chance. There is philosophy in them, but one which outstrips common logic. Hear the sovereign master again:

> Lovers and madmen have such seething brains,
> Such shaping fantasies, that apprehend
> More than cool reason ever comprehends,
> The lunatic, the lover, and the poet,
> Are of imagination all compact.

'Seething brains' and 'shaping fantasies' yield, as their offspring, an imaged world upon lines traced by the five senses, but with freedom. When there appears to be nothing which answers to that world outside itself we call it imaginary; we judge it as among the capricious vagaries of a mind diseased. If, however, we learn that Kepler's abstract laws of motion reveal how the planets travel; or if in general it becomes clear that the brooding imagination discovers before experience ideal patterns on which things are framed; or once more, if great compositions in

music, poetry, the plastic arts, do from age to age satisfy in us wants of the spirit, symbolising we cannot tell what sublime and touching elements in Nature with which we yearn to be at peace, shall we conclude against imagination and in favour of cool reason, when it scoffs because it cannot 'comprehend'? But when science boasts of genius that lights upon discoveries from almost imperceptible hints; when undoubted sudden intuitions are confessed by all the leading teachers of mankind, whose power has lain not in reasoning but in strong assertion appealing to the like witness in other men's hearts; when heroic deeds are inspired by the sight of danger and find a way through it by instinct at the moment's call; need we hesitate to concede a power of mind which neither the senses nor reflection upon them will account for?

The 'brooding' imagination is not a metaphor (except as all our speech applied to things immaterial is such); and I take the word for a stepping-stone from waking to sleep-waking. The poet dreams with open eyes; the dreamer poetises with his eyes shut; their point of contact is vision not dependent on ocular perception. But now observe. Sometimes the poet composes during sleep, or in a fever which robs him of cool 'reason' for the time being; but he composes, all the same, rationally. I mention three well-known instances. R. L. Stevenson, whose 'Chapter on Dreams' might here be quoted wholesale, was the passive spectator asleep of the scenes that he worked up afterwards into the 'Strange Case of Dr. Jekyll and Mr. Hyde.' The opium-eater, Coleridge, made those singularly musical verses on 'Kubla Khan,' with many more he could not clearly remember, in

the same condition. Sir Walter Scott finished 'The Bride of Lammermoor' when he was sickening towards fever, forgot his own story, and in convalescence read it with fear and trembling, lest it should turn out to be mere diluted insanity. It is charged with a secret suggestiveness rare in Scott's Romances; it overtops them all by the agonised struggling of poor human creatures under some Fate that makes them sport for the gods. But insane it is not, any more than *King Lear* and the 'Œdipus Tyrannus,' to which terror-striking creations it is near akin. After reading it, I could not for several years even touch the book. These examples prove that while the outer man sleeps, there is someone who needs not his help or licence to weave incidents which demand high faculties of will and intellect into a cunningly devised fable. 'The whole well-invented plot,' says Stevenson, of another story told to him in slumber, which he found unmarketable and so gave it away to his essay-readers. And he envies the skill with which the secret was kept for a dramatic climax, the 'guileful craftsmanship' that led up to it. He envies, and he was the artist! Or, if not, who was? Is man, as Kant argues, one 'subject' with a double 'personality'?

I only ask you at present to grant that he lives in two worlds—not *will* some day pass from one to the other, but lives in both now. For the inner stream of ideas does not stop flowing because the individual wakes to outward phenomena. The Someone is always brooding over those materials offered to him by life; he acts on them incessantly. As for the double impersonation, without pledging ourselves to Kant, may we not learn of it as a fact from the well-

known circumstance that genius appears to be often grafted upon eccentricity, or even stupidity, in regard to all which it does not bring inside its own sphere? Examples occur to me most readily in literature. Think then of La Fontaine, Goldsmith, Tasso; we might even cite for an oddity bordering on madness, or passing into it, characters like Swift, Sterne, Johnson, and in our own day Francis Thompson, Verlaine, Oscar Wilde, Nietzsche. What, indeed, is madness if not the inward vision deranging the outer, usurping its place, and reasoning from things imagined as though seen by the bodily organs, as well as the mind's eye? To live these two lives with eminent success cannot but involve a strain; and few there are that do not faint under it. The dullness of Corneille, the timidity of Racine, the incurable shyness for which Newman, old and illustrious, treated himself with scorn, are only samples of a wide-spread phenomenon, expressed in the proverb, 'We fall on our leaning side.' Genius, absorbed in that other existence, battles feebly with common difficulties, starves like Camoens, or is driven to distraction by trifles like Carlyle. I have long meditated an essay on 'The Ill-Temper of Prophets,' which must be explained not only by the discrepancies painfully visible to them between the real world and their ideals, but also by the trouble they encounter from finding themselves, so to speak, astray among the crowd. These mal-adaptations, however, furnish presentiments of evolution, and we will quit them for the present, to take them in hand later.

Visionaries and somnambulists—if we consider men of genius in this light we shall do them no wrong. But even they have intermittent moods when the outer

man prevails and inspiration forsakes them. Over against this low water-mark of creative minds we are bound to inscribe the flood-tide level when ordinary mortals asleep betray powers of which waking they show no promise. I refer to the deep trance with its knowledge and elevation of character, as modern physicians have probed into it or the evidence from earlier times left on record. Connected with such trances—perhaps consequent on faculties therein set free—we know of somnambulism proper, the sleep-waking in which, without use of the senses, co-ordinated action takes place. The wonder in this state of man is that, while discarding sight and hearing as his guides, he accomplishes with perfect ease, blindfolded and apparently unconscious, things that in the waking condition he would have shrunk from as impossible. Not only does he read, write, converse intelligently, and go through operations familiar to his trade or business, but he scales dizzy heights, passes on slender or shaking bridges over dreadful torrents, is insensible to that which by physical law should provoke in him pain beyond endurance, and from all this takes no harm but forgets it utterly on coming to himself.

That he acts on some deluding motive is not here the point, but that he acts with abnormal powers, that he goes on a trail which beforehand we should have thought was nowhere discoverable, that he flings aside the whole of the apparatus which, when not asleep, he and we require to do things that he does—nay, things far less difficult. Not the motive, but the state, is to be dwelt upon, if we would argue rightly. For suppose it a reasonable motive, inspired by genius and humanity, or the very opposite, what difference would

that make to the activities displayed? If I saw a man out of the street fly up into the air without wings or machinery, is the seeming miracle altered because he thinks himself an eagle? The miracle is that he flies; if you tell me that he is all the while in a dream, what follows? Surely that dream betrays possibilities in our constitution of which science had better take note. 'If the facts on which the savage reasons,' says Andrew Lang *à propos* of certain theories concerning the origin of religion, 'are some of them rare, abnormal, and not scientifically accepted; if, in short, they are facts demonstrative of unrecognised human faculties; if these faculties raise a presumption that will, mind, and organism are less closely interdependent than science supposes, then the savage reasoning may contain an important element of neglected truth.'

Now, to continue quoting from the same shrewd writer, 'some men of science denounce all investigation of the abnormal phenomena of which history and rumour are so full, because the research may bring back distasteful beliefs and revive the "ancestral tendency" to superstition. Yet the question is not whether the results of research may be dangerous, but whether the phenomena occur.' Somnambulism occurs, quite frequently indeed, with its astounding control over matter, yet not by means of the senses. That 'morphological principle'—boldly call it the soul—which from protoplasm built up the sense-apparatus, has kept to itself a freedom whereby it proves that such instruments can be laid aside and the life of intelligent action go on. Sleep-waking is an episode, interposed among unmeaning dreams; but, like the works of art which, be they frequent or seldom,

proclaim the artist, so these 'uprushes of subliminal activity' disclose a Kingdom of the centre from which the organism receives commands.

It is true that surgical evidence has been offered showing how in vehement dreams a brain laid bare to observation manifested the excitement under which the sleeper was labouring. Against this, while not in denial of the particular cases, we know that catalepsy has gone so far as to deceive practised physicians by its perfect resemblance to death, suspending apparently all the functions, yet leaving, as the event proved, consciousness untouched within. If we suppose an etheric medium, or an 'astral body,' to which the tenement of clay serves as an outward sheath, I do not know what objection physiology could raise; although perhaps there is no need of that hypothesis, held by Oriental sects and by German thinkers like Ulrici. Let us cling to the undoubted facts. What do they demonstrate?

We have gained a step, it would seem, by which we are carried over from a world conditioned by the laws of sensible perception in space and time, to one where other supersensuous modes of knowing and feeling exist, sight without eyes and intellect guiding actions in ways we could not conjecture by anything the senses reveal. Moreover, as these modes often, especially in the waking dreams of genius and in deep trance, are accompanied with an exaltation of character greatly surpassing the common state of the individual, we are led to ask whether man's physical organism may not be a veil hiding some immaterial order of things in which he is at home? Perhaps even, 'the falling away of this apparatus in death cannot affect our true being.' There might then be found within

us, as Holy Scripture speaks, 'powers of the world to come,' while we are yet in the body.

Hitherto, we have been relying upon phenomena known to all, though not heartily welcome in scientific gatherings. For science dearly loves the uniform; and sleep-waking takes us by a spirit-hand into regions where the good old laws of the laboratory seem to be set at naught. Professors of the Royal Society (with exceptions becoming more numerous, indeed) remind me of the boy in the fable; they decline to say A lest they should have to say B, and right on through the alphabet of 'savage reasoning.' We really cannot help that. Another world beyond the world of sense has come through the gates of dream, be they of horn or ivory; and it will stay with us. For after desperate efforts not to be converted and live, science, even the science crowned by the Royal Society, has acknowledged the truth of Hypnotism.

And I propose to urge that confession as a way of escape from the menace of death which materialists and sceptics delight in telling us will end all. Give me leave, however, to pass by the problems that concern the practice of Hypnotism with its cognate branches of experiment—table-rapping, so-called automatic writing, and deliberate efforts to get in touch with discarnate beings by other means than prayer and approved devotions. With regard to all these things, whatever the Catholic Church lays down, you and I, of course, accept. Therefore in the following pages I proceed as would an historian who is also a philosophic student, while not pledging myself to be more than a faithful reporter, intent on surveying the evidence and on drawing from it such conclusions as it appears to warrant.

LETTER VIII

THE UNDER-WORLD: ANIMISM AND HYPNOTISM

My dear Friend,—Not to-day or yesterday have I been made aware of your intense dislike to the abnormal, come it in what shape it will. Your mind, tutored by Athenian masters, delights in Reason, lucid as the dawn, finely tempered; I think you do no more than tolerate the 'vertiginous prophetess' on her tripod at Delphi; and you praise Virgil in that he made his Cumaean Sibyl so calm, despite her incipient frenzies. Yet, myself usurping a similar function, I propose to lead you down into the Hades where hypnotic subjects will meet us, phantasms of the living and the dead, multiple personalities, the haunted and their haunters, clairvoyants, soothsayers, witches, warlocks, faith-healers, spell-binders, magicians, theurgists, thought-readers, illusionists—shall I continue my Homeric catalogue? All these and more coming flocking, bloodless shades, about us; my Ulysses, we cannot escape them. For Hades is a fact.

On the popular version of Darwin's views, I find it hard to say why hypnotic states, and still more why insanity, should enter into man's development. To be out of one's mind is no advantage in the struggle for life. But Nature, on the commonly understood idea of evolution, does nothing save as it will forward her visible scheme here and now. The hypnotic

trance, taken by itself, is unintelligible to physical science ; and how can it favour the life of sense which it often throws out of gear, enfeebling the medium's judgment, laying him open to temptations under which he is worsted or destroyed altogether ? What is the place of such abnormal or supernormal phenomena in evolution, if it always looks to present benefits alone ? Yet again, eliminate them with all their train of consequences and affinities ; reduce man to La Mettrie's sensation and Locke's reflection ; let there be no dreams but such as an undigested meal sets up ; make of mind and body a plane mirror to give back simply the universe perceived through our external senses; and man would cease to be man. There is no doubt about it. Consult history, folk-lore, religion, the fine arts, the speculative sciences. Inspiration—some higher thought not arising out of normal sight, hearing, touch—meets us wherever we turn. Vision and revelation are almost synonymous. Miracles, real or pretended, trouble, reverse, overthrow the order of Nature. Religion has been defined, somewhat harshly, by adverse critics as ' tales concerning the gods and ceremonies to win their favour ' ; but tales and ceremonies alike revel in the supernatural. Churches founded on ' cool reason ' do not flourish. But neither has any great art taken rise in it. Cool reason spells mediocrity ; and that which made the glory of Hellas, would you not say that it was reason transfigured by genius ? But we were taught in my preceding letter by the men themselves how their beautiful work was a gift vouchsafed from unseen powers. And thinkers as far apart as Schopenhauer and Darwin's equal, A. R. Wallace, maintain that the faculties by which art, no less than religion, has been

developed, much exceed the requirements of earthly evolution, or look to quite another.

Science, not to put too fine a point on it, hates personality. Be it divine or human, it is an unknown quantity, an X, which the physicist would, but cannot, resolve into his values. He loaths the Ego, the 'animistic hypothesis,' the incalculable hero, the original who appears once in history,—in short, the personal equation. But to that high range of life above indicated personality is everything. Inspiration cannot be transferred by formula. As willing is no subject for compulsion, so the possibilities of a Napoleon or a Bismarck live and die with him. They are not communicable. Here the unit is the whole. No two are alike throughout ; such indiscernibles, with all respect for Leibnitz who believed in them, have never lived ; in the language of Plotinus the Alexandrian, every true individual has its own archetype ; or using modern terms, persons do not constitute numbers. If any crystallise into a crowd—city, state, church, are the sublimer names—it is by sympathy from which imitation follows ; but you will find that each remains himself, however possessed by the common feeling. Now, of sympathy, which we mark as 'attraction from within,' science has no knowledge. All its attractions are and must be from without. Hence, enthusiasm, in which on the human side religion and other ideal movements originate, is to physics and physiology something supernatural. In the eighteenth century, whose guides were Voltaire and Hume, 'enthusiasm' signified a mental disease, with belief in spiritual manifestations for its characteristic.

Since the so-called 'conflict between science and

BIBLIOTHECA BODLEIANA

religion' broke out among Greeks, twenty-five centuries have gone by. When we look sharply into it, we may perceive under the thousand masks which these combatants put on, that they are ever the same. It is a duel between the soul's champion and the soul's assailant. Animism here, mechanism there; that is the everlasting issue. Not as though to affirm a universe of spirit is to deny a universe of matter. But the question turns upon origin and supremacy. 'The error consists,' as Plato warned his disciples for all time, 'in transposing first and second causes. They do not see'—these natural philosophers—'that the soul is before the body, and before all other things, and the author and ruler of them all.' Such is the doctrine in general now designated Animism, comprehending under a single name the Supreme First Cause and whatever individual other causes exist, dependent indeed on Him, but as gods set over the mechanism of things visible, in a living hierarchy of souls or intellectual substances.

Animism—let us not be ashamed to use the word—is 'the most potent hypothesis in the history of humanity.' It has outlived Democritus; it will not be slain by Darwin. From times pre-historic to the age of Spencer it vindicates to itself more than any rival system the spontaneous and seemingly irresistible assent of human nature wherever found. If a superstition it is world-wide. No degree of savagery falls quite below it; no civilisation has hitherto risen entirely above it. The agnostic, or idealist, or sceptic, or materialist belongs to a school; but the animist to mankind.

Here is a passage from Richard Jefferies which exhibits this continuity of thought in a picturesque

scene. Thus he sketches it in 'The Story of my Heart':

'Twelve thousand years since, the Caveman stood at the mouth of his cavern and gazed out at the night and the stars. He looked again and saw the sun rise beyond the sea. He reposed in the noon-tide heat under the shade of the trees, he closed his eyes and looked into himself. He was face to face with the earth, the sun, the night; face to face with himself. There was nothing between; no wall of written tradition; no built-up system of culture; his naked mind was confronted by naked earth. He made three idea-discoveries, wresting them from the unknown: the existence of his soul, immortality, the deity. Now, to-day, as I write, I stand in exactly the same position as the Caveman.'

To ideas time makes no difference. The twelve thousand years might be multiplied by twelve, and tradition would still require to be tested by first principles. But there must be deep in man, recognised as truly a first principle, this tendency to personification, or long ago, it would have died away under the stress of natural selection which, on Darwinian methods, does not want it. Plato wants it, however, as we have seen, and he can scarcely be held a 'savage' reasoner. But what think you of Kant? The least superstitious mortal that ever philosophised, he declares: 'Now, the common principle of the mechanical on one side, and of the teleological (or final cause) derivation on the other, is the supersensuous which we are bound to set beneath the nature of phenomena.' 'Principle' is here a concrete term implying reality. But a real source both of efficiency and design in the organic kingdom, where man is chief, accounting for

phenomena while itself beyond sensible perception—if we baptize it 'soul,' are we saying more than Kant has said? His 'idea of the Reason,' it appears to me, is here caught in the act, not merely a limit or a form but, as Aristotle laid down, an energy that makes the thing to be what it is. A willing no less than a cognitive being is that 'idea,' discovered in the world's youth by meditation on experience.

For to this we come back. The soul is man's innermost being and he knows it, though far from exhaustively. 'Nec ego ipse capio totum quod sum,' says St. Augustine. In various states he knows it, of which sleeping and waking are constants that revolve about an inward centre, each different from its alternate by positive marks. If sleep never brought knowledge nor passed into action while unbroken, it would be merely a blank for the soul-watcher. But there is an induction from every part of the globe, to the details of which all tribes and tongues add their share, testifying that certain states of sleep unveil a peculiar consciousness and self-consciousness, not as in the day-hours, yet active to an extraordinary, not to say bewildering, degree. This supersensuous condition may be artificially brought on by the subject or another; it is the long-denied but now accredited allotropic state, booked as hypnotism in psychological treatises.

Belief in so-called abnormal phenomena, physical and psychic, flourishes among all peoples, and the explanation given is always that of agents who transcend the body and are somehow alive. This witness to alleged facts and certified convictions about their origin has been powerfully brought out by Andrew Lang. 'The countries,' he remarks, 'from which "ghosts" and "wraiths" and "clairvoyance" are

reported are distant ; the dates are wide apart ; the creeds and characters of the observers are different ; yet the evidence is as uniform and as recurrent as it is in the case of institutions, manners, customs. Indeed the evidence for the rejected and abnormal phenomena is even more recurrent than the evidence for customs and institutions. Polyandry, totemism, human sacrifice, the taboo, are only reported as existing in remote and semi-civilised countries. Clairvoyance, wraiths, ghosts, mysterious disturbances and movements of objects, are reported as existing, not only in distant ages, but to-day ; not only among savages and barbarians, but in London, Paris, Milan. No ages can be more wide apart, few countries much more distant, than ancient Egypt and modern England ; no characters look more different than that of an old scribe under Pharaoh, and that of a distinguished soldier under Queen Victoria. Yet the scribe of Khemi and General Campbell suffer from the same inexplicable annoyance, attribute it to the same very abnormal agency, and attempt (not unsuccessfully) to communicate with that agency, in precisely the same way.'

Hypnotism, perhaps one of the oldest of human discoveries or endowments, is among the most recent powers, if we reckon how it has affected men's minds of late. With its cognate faculties, so far as they happen to be verified—I am always cautious—it introduces vital problems not unlike those of the Fourth Dimension in geometry. It gives the world of dreams a solid basis. Manifestly it robs the senses of their exclusive function, viz., to supply materials upon which intellect and will may operate. It shows the possibility of other senses, and a door of escape from the tomb, seeing that death might leave unimpaired

the co-ordinating principle and the medium, whatever it is, which the sleep-waker employs to gain knowledge or to control matter. It presents to us the soul as a spiritual valour and value, capable of being raised to higher multiples of its ordinary potencies. It indicates that, for man, the centre of gravity does not lie on a surface mostly encumbered with sensible phenomena, but in depths of which we have some vague apprehension, while dreading, as well we may, to cast a line therein.

For the first time, perhaps, it enables psychology and logic to put a meaning on the questionless but perplexing facts of latent or implicit knowledge ; to get quit of Mr. Spencer's blind formula, 'the Unconscious,' to explain why argument usually persuades only those who have long ago held its premisses ; to account for sudden explosive and insane action in the solitary man or an entire people.

I say that hypnotic trance, whether spontaneous or induced, appears to do all this for an age devoted to Baconian observation. I go on to remind the same rather self-intoxicated period that religion did not wait for Braid, Esdaile, and Liébault, to distinguish between the senses and the supersensuous, or to qualify with delicate touch the various moods of spirit-life. Our saints have been pioneers in psychical research ; our grand treatises on mysticism are standard works, free from the extravagances that beset too many of the writings on matter so dark and dangerous. But that which science would not learn from St. Teresa, St. John of the Cross, or St. Thomas Aquinas, it is now compelled to study in ways less agreeable and in forbidding shapes—the demonic rather than the heavenly. And it is running grave risks because of its self-

confidence. The living is not like the dead world of atoms, to be handled with impunity.

Now again man must ask, like St. Augustine, 'Quid ergo sum, Deus meus? Quae natura sum?' And he must answer, 'Varia, multimoda vita, et immensa vehementer.' What a pregnant phrase! Our 'nature' is to live, yet as it were many lives in one, far beyond soundings that could reach the dim ocean recesses where its treasure lies hidden; it is something 'strikingly immeasurable.' The mind is too narrow to contain itself, observes the philosopher-saint. No words are equal to the 'profound and infinite multiplicity' which he discerns within, yet not in any real space. All this region above and below the bodily senses Augustine calls 'memory'; and in so doing he raises a question over which psychical explorers have been much exercised.

On the one hand, many well-attested facts go to prove that nothing which happens to us is ever forgotten. The classic instance was given by Admiral Beaufort, in a description of his experience when on the point of drowning. Every incident of his former life, he said, seemed to glance across his recollection in a retrograde succession, not in mere outline, forming 'a kind of panoramic picture of his entire existence, each act of it accompanied by a sense of right and wrong.' This may be compared with a vast number of the like narratives, which tell us that such accidents bring before the mind in one simultaneous vision the whole of life 'arrayed as in a mirror.' But on the other hand it cannot be doubted, according to the best medical evidence, that sleep-walkers once out of their trance, remember not so much as that they were in it. The sensitive memory is a white sheet in respect of

somnambulism, having no record to show. But the hypnotised subject often (not apparently always) is acquainted with whatever the waking person has done or felt in the daytime. De Quincey, from whom I borrowed that simile of the mirror, has on the same page illustrated from his own double existence, in and out of opium-dreams, this contrast vividly. He says, 'The minutest incidents of childhood, or forgotten scenes of later years, were often revived, I could not be said to recollect them ; for if I had been told of them when waking, I should not have been able to acknowledge them as parts of my past experience. But placed as they were before me in dreams like intuitions, and clothed in all their evanescent circumstances and accompanying feelings, I recognised them instantaneously.' He then adds the story of a child who came near drowning and saw in a moment the whole and every part of the time she had lived, as a picture before the inward eye. And he concludes, 'there is no such thing as ultimate forgetting ; traces once impressed upon the mind are indestructible.'

These hidden but permanent inscriptions, now admitted by mental science, would seem to warn us that the conservation of energy is applicable as a law to the spirit, however difficult it may be to understand its workings. For to imagine material traces on the tissue of the brain, as on a palimpsest, by millions of characters, puzzles rather than satisfies reason. We must bear in mind, too, that such tissues are constantly renewed, perhaps within very short periods. Would the supposed etheric medium be more lasting ? We can only say at present, the record is there—in our secret, pretersensible nature—'quasi in caveis abditioribus' (to appropriate St. Augustine's analogy) ;

the fact is sure, the explanation still to seek. But with problems of remembrance, especially since Locke mooted them, is bound up the question of personal identity, on which the hypnotic trance (as well as many curious and strange cases of multiplied or alternating impersonations recently observed) throws mingled light and gloom.

To secure ourselves against misunderstandings in a matter so full of pitfalls, I begin by subscribing with both hands to the plain commonsense of Bishop Butler, whose ruling is unimpeachable. All attempts to define personal identity, he says, would but perplex it ; 'yet there is no difficulty at all in ascertaining the idea.' Moreover, 'by reflecting upon that which is myself now, and that which was myself (suppose) twenty years ago, I discern that they are not two, but the same self.' But 'though consciousness of what is past does thus ascertain our personal identity to ourselves,' continues Butler, 'yet to say that it makes personal identity, or is necessary to our being the same persons, is to say that a person has not existed a single moment nor done one action, but what he can remember,—indeed, none but what he reflects upon. And one should really think it self-evident that consciousness of personal identity pre-supposes, and therefore cannot constitute personal identity ; any more than Knowledge in any other case can constitute truth, which it pre-supposes.' Hence 'present consciousness of past actions or feelings is not necessary to our being the same persons who performed those actions, or had those feelings.'[1]

All this I steadfastly believe, holding it to be self-evident. Locke, indeed, brought up again in his

[1] *Analogy ; Of Personal Identity*, p. 328.

confused manner the old puzzle which resolved existence into moments, with philosophers of the stream, as Plato called them ; whence it followed that nothing could claim a permanent duration. Hume, and in our day Spencer, would fain ask how a consciousness which changes with such moments can reveal that which does not change. But duration is a fact and memory is its voucher. At the same time, as St. Augustine remarks, the memory by which we know that we remember tells us also that we forget. Butler's argument is conclusive : ' All imagination of a daily change of that living agent which each man calls himself, for another, or of any such change throughout our whole present life, is entirely borne down by our natural sense of things.' These ' successive actions, enjoyments, and sufferings, are actions, enjoyments, and sufferings of the same living being. And they are so prior to all considerations of its remembering or forgetting ; since remembering or forgetting can make no alteration in the truth of past matter of fact.'

LETTER IX

DISINTEGRATION, OR MULTIPLE PERSONALITIES

My dear Friend,—Another fine saying of St. Augustine occurs to me : ' Man is himself a greater miracle than any miracle which he works.' The same thought has been put into English with a slightly different application : ' Man is an exception, whatever else he is. If he is not the image of God, then is he a disease of the dust.' Let it serve to introduce the strange subject, now to be briefly considered, of alternating and multiple personalities. Ought we to shirk it because it is as difficult as unpleasant ? But I cannot praise a fugitive and cloistered philosophy that, defining man as a ' rational animal,' leaves him thus in the abstract, and grinds him into propositions as corn is ground into flour. ' Notable enough too, here as elsewhere,' exclaims Teufelsdröck in his wild way, ' wilt thou find the potency of Names. . . . Witchcraft, and all manner of spectre-work, and demonology, we have now named madness and disease of the nerves, seldom reflecting that still the new question comes upon us : What is madness, what are nerves ? Ever, as before, does madness remain a mysterious-terrific, altogether infernal boiling up of the nether chaotic deep through this fair-painted vision of creation, which swims thereon, which we name the Real.' [1]

[1] ' Sartor Resartus,' *Works*, i. 197.

Be it so, yet if chaos lie couching beneath, no blinking of the fact will do it away. The bolder philosophy with Kant perceives in dark problems a challenge from Nature, not as the man-devouring Sphinx, but as an Alpine guide urging us towards the heights by the peril of crevasses into which, unless we nerve ourselves to heroic effort, we shall tumble headlong. To Teufelsdröck then we will concede that 'in every the wisest soul lies a whole world of internal madness, an authentic demon-empire; out of which, indeed, his world of wisdom has been creatively built together.' And he, the builder, is thereby shown to be the greater miracle.

We may begin at either end. With slight or, at all events, normal changes that diversify and characterise the mere abstract 'rationality, animality,' *pari passu*, from the rudiments of each to its completed state. Or with some well-certified instance of a disintegration so thorough as to present in the same organism two or more—what shall we term them so as not to beg the question?—actors we will say, one of whom does not know the other, has never found him out, and learns of his doings only by report of nurse or physician? Custom dulls our perception as regards normal changes, though everywhere discernible, of the parts played by one individual, on emerging from childhood to adolescence, from the prime of life to old age. These do not commonly disconcert us, although at each critical turn a few weaker individuals lose their minds or become eccentric. Let us take, then, some startling but undeniable accounts of a double personality, where light is afforded, at length, by hypnotism.

I have before me the posthumous work of F. W. H.

Myers on 'Human Personality and its Survival of Bodily Death.' We are not concerned just now with Myers' theoretical views; but his volumes afford illustrations founded on the evidence of medical men, attested at first hand, from different schools and in all parts of the civilised world, which prove that the human subject may apparently fall asunder into mental fragments, some of which give themselves out as the whole person. May I take for granted that you will look into the leading cases? I mention those of Ansel Bourne, Mary Reynolds, Félida X., Louis Vivé, Madame Léonie B, and 'the Misses Beauchamp.' Similar phenomena, no doubt, occur frequently among the insane; but specimens thus put on record circumstantially, as they were observed, fulfil the strict demands of science and logic. They are abnormal in this sense, that they break the chain of memory by which the first of the series knew itself as personal, and bring on the stage, i.e., above the threshold of consciousness, others not previously suspected or non-existent. These may be related to one another in any degree of complexity, with knowledge by the new comers of the ordinary actor whom they supplant, as well as feelings, friendly, indifferent, or hostile, towards him. They may move on the ascending curve to a better integration, or on the descending until the ethical character degenerates into vice and fury. The impersonations are often as consistent as a great poet's idea worked out in detail. They may last for months and completely submerge the old consciousness. Two of them have been known, as in Mary Reynolds, to change about at intervals of varying length for fifteen or sixteen years, passing then into a state superior to both, which continued until the

patient's death, thirty-five years later. In the case of Félida X. the second state permanently superseded the first, and was morally a decided improvement on it.

Now hypnotism, in the case of Ansel Bourne, enabled Professor James to recover from the subject a true narrative of adventures into which the secondary person, A. J. Brown, had fallen, but which were quite unknown to the primary one. In that of Léonie B., of the Misses Beauchamp, of Louis Vivé, it served the same purpose yet more effectively ; so that we might figure to ourselves the hypnotiser as a judge listening to evidence given in the witness-box by all these masqueraders under cross-examination. If with Myers we call hysteria 'the most delicate form of psychical dissection,' we cannot but allow that hypnotism puts into our hands a searchlight, more brilliant than genius ever invented, by which to investigate the soul's relation to the body. I do not say that it will find out man's deepest thought, or ascertain what he deliberately resolves. That is another problem. But when we have discounted whatever seems to us questionable in these allegations, we can scarcely deny that they point on to 'the complex and separable nature of the elements,'—which I would never admit as making up human personality, but—which have been taken up into its sphere. For once I am willing with Bishop Butler to accept Locke's definition of this identity, as 'the sameness of a rational being.' That sameness cannot but endure beneath all changes. Reason, however, by which we mean a great deal more than the discursive understanding, permits of every degree of manifestation between the zero-level and the absolute self-consciousness that may, in some far-

distant stage of the spirit, 'slumber not nor sleep.' Myers would not grant us the 'right to assume that all our physical operations will fall at the same time, or at any time, into the same central current of perception.' No, they need not, but there may still be peace, 'subsisting at the heart of endless agitations,' where the soul thinks and wills.

Strictly speaking, the 'mind diseased' conveys a false impression. It is the organism that lapses into ruin—a portion of the whole—and during lucid moments, often just before death when the malady has done its worst, that captive of the lower nature breaks loose, and comes to utterance rational and self-possessed, waking from trance to health by a supreme effort. Then we know the true self, 'an ideal of sanity and integration' as compared with deluding masks and morbid phases, the consequence of strains, exhaustions, over-pressure that, affecting directly the nerves or tissues, have made brain and body recalcitrant to their sovereign, the reasonable will. Each man is at once a unit and a universe; but when he knows himself most clearly he affirms with certitude that the unity is within, is not mechanical, and cannot be divided into separate parts. The soul never disintegrates; but imagination is a faculty depending on organic conditions, with which as material for thought and as a subject upon which to exercise its powers, the living Ego must make treaty.

The observation still holds good that madness errs in its premisses but reasons from them soundly enough. Those premisses, whence are they suggested? By the external senses reporting inaccurately, as injured media? Yes. And by internal phantasms, symbolising unhealthy states of the system? That, beyond

question. When the once superb philosopher, Kant, was over eighty a morbid affection of the stomach gave him appalling dreams, in which 'single scenes or passages were sufficient to compose the whole course of mighty tragedies,' and these impressions stretched far into his waking hours. Like Swift he sank into melancholy silence, though not quite unbroken. Yet mark this ; at the lowest point of his condition, when he became incapable of conversing rationally about the day's topics, he was able to answer, with astonishing accuracy, questions put to him on matters of philosophy and science. Though brought to such a pass, he could state Kepler's laws of planetary motions and discuss physical geography. At the same season he failed to recollect the letters of his own name—an instructive story, for it enables us to distinguish between the intellect that kept its grasp on laws (a purely mental product) and the sensitive memory which would not function as of yore in a body hastening to dissolution.

Kant 'sat like a mute on the stage' ; Swift never speaking walked to and fro incessantly about his room in the asylum ; neither was competent to express intelligently what he thought at the last. But will any argument persuade us that the mind in those extraordinary men of genius had perished ? And if not in them, why in the hallucinated, hysterical, distraught subjects whose vital reaction on the senses, outward or inward, is so slack that they seem to fall to pieces ? By occasional flashes of reason these poor things warn us of the contrary; they are frost-bound in a more than Russian winter ; but let the faculties be loosened through some favourable crisis, like a thaw in spring, and they would convince us that the spirit was always

there. Integration, taking place after the catastrophe which has to all appearance shattered intellect, is but a medicinal process, not very dissimilar to the tuning of an instrument that will, when its parts are set in order, discourse excellent music. What we hear from these fragmentary 'persons,' that come and go, is as the 'sweet bells jangled' by ringers without skill, when their leader is absent or intoxicated.

But how is it possible for the bells to be set in discord? Have we a theory, besides the mere physical disturbance of function, to meet phenomena such as multiple personalities inflict upon us? Let the following be allowed a hearing. I will only say 'Valeat quantum,' it is a suggestion and nothing more. You remember that St. Thomas Aquinas defines the human individual, existing in space and time, by means of a mysterious reality named 'materia signata,' marked or qualified matter. I will borrow the expression while not venturing into scholastic subtleties. The high master can never have intended us to believe, as our 'matter and energy' Old Guard believes, that by taking a sufficient quantity of these elements we could, without more ado, shape them into Hannibal or Cæsar, just limiting the compound to a given period and a habitat answering to the same. St. Thomas held by the creation of souls,—of these actual units—which were conscious and self-conscious, with a singleness utterly inviolable. That any power was capable of putting a soul together like a mosaic he would have negatived once for all; and equally, of course, that the spiritual substance might break up or be broken up into bits of 'mind-stuff,' as W. K. Clifford termed his own imaginary 'prima materia.' So much I premise on behalf of the Angelic Doctor,

as also by way of defence for my harmless dreaming on this head.

Whatever be the origin of the soul, it 'cometh from afar' into our planetary conditions. It is a pilgrim, if not an exile. It does not rise out of elements subdued to space and time as their framework, but descends into them, if we must employ the language of motion (as we must) where it is plainly inadequate. Contemplating with St. Thomas the human spirit under one view as an intellect whose proper object is all being—not time but eternity—and its goal the Supreme God—but likewise, in another view not less justified as the 'forma corporis,' the principle which animates our fleshly organism, what shall we conclude regarding its office and functions? That they will be a resultant, I say, of the whole composition, as it is directed towards the end or purpose for the sake of which it was brought into being. Here are many words, and my thought has run ahead of them. Briefly then, between the organism which serves and the soul which rules a harmony is to be established, but only the possibilities of it are vouchsafed at the moment when this or that individual starts on his career. And since he is, on our supposition, a free artist, not a piece of machinery wound up to run down again, he must have a choice, and there must be a struggle within his little world as with the great world outside, by which he makes or unmakes himself.

That struggle is provided in and by the 'marked matter' which he—any one of the millions born of woman—has inherited from his ancestors. If the soul could be transmitted, or if, as in the Platonic legend, it had existed before and now chose its habitation or was compelled to enter it, philosophers might

assume that the soul itself has been marked. The doctrine of creation (or the possible 'state of nature alone,' conceived by orthodox divines) appears to bring with it merely what I will call 'potencies' on one side and 'predispositions' on the other. From the ancestral life-plasm, modified through countless generations, its history written in its concrete form we know not how, developments are possible along any one of diverging lines, under the spirit's guidance. For we have agreed that the mechanical law of the conservation of energy is compatible with such free guidance by a superior power, not acting as one of those energies but in a manner peculiar to itself and transcendental to matter. Endless possibilities, we may maintain, are folded up in the protoplasmic germ, far beyond prediction by human capacity. The combinations handed down from past ages, who shall reckon them? The alternative courses at every step in a man's life, including accidents from impinging on other lives, do they not open vistas into a science of contingencies at which we dare hardly glance, from which we turn away with an 'O altitudo!' like St. Paul? But these are true possibilities if man is a free agent. Will and free-will come into our philosophy, as they alone make it worth while to philosophise.

This creator of his future self, as a realised character, is then, as much as any musician or poet, moving in a most unstable element, from which he will take according to his resolve the notes, or colours, or expressions, that he builds up by way of rising from potentiality to act. Most unstable, I repeat. Such is the signature of living compounds, and of man above all. Variation upon a theme, individuals diverging more or less from a type—this which appears

to be the law in biology, unlike the substitution of similars whereby physical science proceeds, introduces us at once to possible degeneration and integration. For our Milton may bequeath 'Paradise Lost' to an English-speaking world or die 'mute, inglorious,' yet have set out as the same numerical soul in either case. Look at our problem in fact. Do we leave things to fate or chance? Is not religion a discipline, culture selective, experience a lesson? But if so, each man's life goes on by a free process, and he makes his path while he travels on it. He hears voices like the adventurer in the Arabian tale; he is solicited by visions; he is drawn this way and that way; but within certain bounds he is free. His judgment, however, can be suspended or overthrown by imaginations which arise from the deeps of ancestral inheritance, from impulses that are at last organic, yet not stirred by outward sense directly; and in this borderland or region of interior phenomena madness may find its opportunity. Shattered nerves will then, like disordered senses, be the effects rather than the causes of derangement. Its possibility would lie in the complex imaginative elements that answer to the age-long record embodied in this particular constitution, this 'materia signata,' which this individual has received from the past, and which he had not succeeded in managing so as to keep a healthy balance. 'Our worser thoughts Heaven mend,' is an excellent prayer, even on the lips of mocking Charmian; but these thoughts were first due to impulses organic in their kind, not to principles affirmed by the intellect. Physicians and priests are often witnesses of the affecting struggle between a mind anxious to do right and the lower nature in revolt against it. But the special character of that

rebellion may be traced or traceable to inherited tendencies, not less than to bodily hurt.

We do well to think of all vice as a surrender and of virtue as a resolution. Impulse by itself is neither always good, though Rousseau with modern sentimentalists glorify it beyond measure, nor always bad, as perhaps the Stoics held. It requires to be judged in the court of conscience ; it is, in short, impulse, not will. The function of the will is to choose according to reason. And reason has its first principles which, applied to practice, become categorical imperatives. In obeying them we rule. The violence of passion, which so many now mistake for inspiration, is a tempest that shakes our inward kingdom and, if not laid by the spirit commanding ' Peace be still,' may—as it often does—end in the asylum. Genius, undoubtedly, is stirred to think and to execute its wonderful designs by sub-conscious whisperings, by the feeling that it has a work to perform, and so by instinct-like provocations from within. But when these rise above the threshold they come into the domain of ethical choice ; questions of human rights and duties, not to be put by, enter as they spring up ; for, in this sense, all is under law. To accept the ' sub-conscious ' instead of ' conscience ' would be to commit moral suicide. I have been adducing phenomena which, in the judgment of capable reasoners and now, at last, of a growing crowd who depend on authority, have compelled the old Materialism to haul down its colours. The world beyond our senses made visible in trance stands as sure as observation and experiment can declare. But hypnotism reveals in general simply another condition of human nature, not necessarily perfect ; much less dowered with

omniscience or any other divine attribute. Hence I term it allotropic.

There is no denying that between the trance-life—between clairvoyance, alternate or partial personalities, and mental disorder—a bond of union exists. What is it? M. Liébault, of Nancy, would bring all these moods of feeling and thought under one influence, which he defines as 'passive suggestion.' The word was wanted; it discovers a large gap in our psychology. But it appears to have been first employed by Bertrand, a French physician, in 1820, as the sufficient explanation of extraordinary mesmeric cures. 'Suggestion' is now almost a catchword, put forward as the universal premiss of Hypnotism; and, of course, the term by itself merely states an observed fact; for we have still to find out how it is that suggestion affects the entranced subject. It has been said that the ordinary waking mind, to which the senses afford material for judgment, proceeds by inductive reasoning, while the hypnotic mind lies always at the mercy of hints or commands passively accepted, on which no judgment is passed. But, once the premisses are obtained, this 'subjective' mind draws conclusions from them deductively, as if they were real. I am not satisfied with any form of the above speculation that I have yet come across. It labours under difficulties, both as a theory of being and a theory of knowledge. Yet there may be some elements in it that we can turn to account, provided we insist on the mind's essential unity all through.[1]

Suggestion, then, we will lay down to be the effective presentation of an idea to our mind, sleeping or waking, which we take to be an actual reality or to

[1] Hudson, *Psychic Phaenomena*, 29, 30, and following.

solicit realisation on our part. If no such thing is there, we speak of hallucination ; if it ought not to be realised, we call it temptation. The source of mental promptings need not lie beyond our own nature. From whatever side they enter into thought, they tend to become motives of action with which we must somehow deal. Other minds may stir them up when latent in us, or provoke them for the first time ; and, apart from these, doctors have carefully studied the effects of drugs (opium, chloral, and the like) as well as noted the way in which strong emotions exalt, disorder, and even abolish the exercise of our intellect, so far as it depends on the brain thus affected. Suggestion is always, at last, self-suggestion, whether its proximate occasion be within or without the organism. I take this to be the most important principle in mental science, as it is in what Emerson has aptly termed the 'conduct of life.' Glancing very much in advance, let me advise you that on this field the battle of Darwinism will be lost or won. We have insisted that man makes himself. He does so by judgment, wise or foolish ; in short by the point of view. Insanity is the result of the point of view, and so is conversion, so heroism in act, so in the long run character. To please Orientalising friends, shall we translate character into their dialect as Karma ? Perhaps it would be running risks which we should avoid.

Judgment is the key-note, I maintain, in any scheme which undertakes to reconcile states of mind so unlike as the 'objective' and 'subjective,' described by Hudson, illustrated apart from speculation by Bernheim, Moll, Charcot, and profoundly examined by Schopenhauer. Judgment is the vital principle which, when it is sound, keeps to inductive canons or

experience, and testing every suggestion by the sense of mankind (admirably designated 'common sense'), rules out whatever is unreasonable and immoral. It acts largely by inhibition ; it is a genuine natural selection, adapting the individual to life. You will be ready with problems that such an idea of evolution calls forth ; but have patience. We shall come to them at a later station on our Alpine ascent. I am now indicating that the two poles of man's mental universe are suggestion and judgment. That he judges rightly when he is guided by Reason ; and that normally such judgment is exercised only in the waking, conscious state. That suggestion affords the matter of judgment from sources the most varied ; but in expression it is always mental, using this term in the widest possible sense. That insanity is due to over-mastering suggestion which judgment fails to inhibit and cannot therefore select from the images and ideas presented, but lies at their mercy. Hence Wordsworth's accurate phrase, 'the anarchy of dreaming sleep' ; for sleep in its stage of ordinary dreaming resembles madness by the absence of inhibition. Finally, we are led by these reflections to conclude that the cause, as distinct from the occasion, of mental states whether normal or supernormal, must be looked for in the subject himself.

LETTER X

CLAIRVOYANCE, TELEPATHY, INSTANCES

My dear Friend,—'Psychic phenomena,' said an English journal lately, 'cannot be proved or disproved on paper.' This observation, I fancy, like others in the same style, tends to distinguish between pure ideas, such as formal science deals with, and real events of which life is the theatre. What the journalist, our current Sancho Panza, seems to want from his Don Quixote, the philosopher, is something more than assertion founded on the principles of being in general, or on the 'idea' of a soul. He clamours for a concrete statement of facts, ascertained and ascertainable, despising the arguments *a priori* lodged in old books which he intends not to read. Well, we are doing a little to satisfy the good Sancho. For our reasoning has not been, 'So it must be,' but 'So it is.' And we bring to his notice the sworn and sifted depositions of independent witnesses who cannot have agreed upon a story beforehand.

Andrew Lang—I quote him willingly, *pietatis causa*—applies to our present purpose some remarks, in a like investigation, of Mr. Tylor on this kind of evidence. 'The accounts,' says Tylor, 'of similar phenomena of culture, recurring in different parts of the world, actually supply incidental proofs of their own authenticity . . . The test of recurrence comes

in. . . . The possibility of intentional or unintentional mystification is often barred by such a state of things as that a similar statement is made in two remote lands by two witnesses, of whom A. lived in a century before B., and B. appears never to have heard of A.'

This in biology is known as 'the independent origin of similar structures.' It resembles, also, Paley's method of proof from undesigned coincidences. The evidence itself makes collusion impossible. We need assume nothing beyond it as it comes into our possession. 'If some of the coincidences alleged,' says Paley, 'appear to be minute, circuitous, or oblique, let (the reader) reflect that this very indirectness and subtlety is that which gives force and propriety to the example.' We may turn this maxim about and conclude that the more spontaneous, or unanticipated, the facts seem to be, so much the less will they lend themselves to design, which in our present subject would necessarily mean imposture. Thus one instance of the supernormal—as a case of second sight and action consequent upon it—occurring to a man who has never had such an experience before, who was fast asleep, without motives for anxiety, and in perfect health, may be far more convincing (though not really more certain) than if we were told of many in the Highlands, where the tradition of such things is immemorially ancient.

Let the subject be a healthy undergraduate, who scorns the occult and is sleeping as only youth can, not troubled by dreams, at home. He wakes suddenly, with a vision of his father crossing an iron bridge, where the son had never stepped, walking between the rails towards a hidden gap some four feet wide, beneath which a tidal stream is rushing. The lad

calls out to warn his father, who walks on heedless to destruction. Then, springing out of bed, he enquires, finds that his father is not in the house, runs off—it is after midnight—to another man's place, makes him dress and come out two miles up the river, until they reach the bridge just as the father's footsteps are heard at the other end. Some of the plating had been taken up without his knowledge ; he came that way by accident ; and his son's second sight saved his life. Moreover, that son was led by the same occurrence to study psychic phenomena and to publish a book in defence of the soul's immortality. These are the facts ; what is the logic of them ? Design is out of the question. Coincidence between the father's peril and the son's vision there certainly was. How shall we explain it ? That is a chapter in the clairvoyant problem.

A chapter which covers thousands of years, and instances by the myriad. But one single case, well attested by action to which it gave rise, would be sufficient to justify the query whether in man or in touch with him there is not some unseen power, intelligent and endowed with knowledge apparently transcending any acquired by the senses, which it is able to impart for a definite purpose. Grant the vision, the journey to the bridge, the danger, and the rescue, what we demand is a reasonable account of the story as a connected whole. Coincidence is not a cause but an effect. Then how shall we qualify the cause ? Could it be unintelligent if it foresaw the peril, warned the son of it, and gave him time to be on the spot ? Brain-waves are, it may be said, as conceivable as waves of ether. Suppose them accordingly ; but they will be waves bearing intelligence—from whom ? For it

would be absurd to ask 'from what?' Intelligence comes from a mind. But the father was quite ignorant that danger waited for him on the bridge; he had no vision of it himself. The ordinary senses, the conscious mind, are shut out of the field of knowledge. It is conveyed, by paths inscrutable, to the sleeping son. It does that which it was intended to do. We cannot bring it inside the circle of Locke's sensation and reflection, of sight, hearing, or rational inference from perceived antecedents. It is intuition of the future, and it must have an adequate cause.

Materialism holds that the world, as it lies outside of us, projects into the brain by the machinery of sense a reflected image of itself; and that all our knowledge comes by these channels and in no other way. But if second sight, or a predictive inward vision, takes place, there is another way. The object, mental or physical, may be revealed to us along a track of which sense can give no account. Man would then be normal and supernormal—within the grasp of science partially, but above it as well; and to that extent a 'miraculous' being. This larger world, not comprehended in sensible dimensions, must be thought of as flowing round and through ordinary phenomena, which it subdues to its own designs, as the telegraphist now employs wireless telegraphy to convey messages without any medium but the electric vibrations themselves between stations far apart. What is the source, and what the medium here? Since the problem exists, an answer which shall be likewise an explanation lies somewhere in the nature of things. For I deny that any being is simply unknowable, though our limited intelligence may stand mute before it.

In 1882 Myers proposed to call the process, by

which knowledge is conveyed through supersensuous channels from one mind to another, 'Telepathy,' and the name has been widely accepted. This 'feeling at a distance' negatives the intervention of ordinary sight, hearing, touch, as means by which it is created; consequently it implies that some other mode must be given, some distinct faculty postulated, as the cause of these psychic phenomena. But telepathy is only a name like gravitation or magnetism, serviceable as a shorthand expression binding together facts which belong to the same class, connoting the real energy manifested in and by them, yet nowise determining what it is in itself. When we allow it to be supernormal, our meaning is not that hypnotism with clairvoyance and the rest flies above law in a mental chaos; but that the laws of the five senses have no control over it. Whether it uses the brain as an instrument may be questioned; how it is related to the organism remains a mystery. And who is the agent? On that subject controversies fill the air. To me it seems of primary importance that we should ascertain the phenomena themselves before pinning our faith to any hypothesis concerning the efficient or the final causes involved. The positive is the first stage in this enquiry. Telepathy, using the word in its general sense, 'without prejudice,' may occur to a waking no less than a sleeping subject; it is not confined to trance. But for the mind under its influence time past or future becomes present and space transparent to any degree. These are allegations running through history.

As regards seeing at a distance, I will first put you in mind of Biblical narratives, such as Samuel's predictive vision of Saul on his way to enquire of the seer

then at home in Ramah ; Elisha's acquaintance from afar with the words that the King of Syria spake in his bedchamber ; and Ezekiel's contemplation, as he sat in his house among the captives at Babylon, of the city and temple of Zion. Very striking from a modern point of view is the language that Ezekiel adopts in describing his condition, ' he put forth the form of a hand, and took me by a lock of mine head, and the spirit lifted me up between the earth and the heaven, and brought me in the visions of God to Jerusalem.' [1]

Then you remember that ' far-seeing ' in Herodotus (I, 47) is attributed to the oracle at Delphi when consulted by Croesus, and how bold is its claim !

> I can count the sands, and I can measure the ocean :
> I have ears for the silent, and know what the dumb man speaketh.

Yet a similar claim was made at every Hellenic shrine where answers by the god or the hero, commonly through the medium of a prophet but sometimes without one, were given to suppliants. ' To apprehend the mind of the dumb and to hear the voice of the silent ' is almost a scientific description of telepathy as exercised in deep sleep by the ' sensitive,' who now represents in a London drawing-room the Pythian priestess. Need I mention except as a link in the chain, Apollonius of Tyana, the spectator at Ephesus of Domitian's murder in Rome ? A mere legend, perhaps, but sufficient to illustrate the universal belief in supernormal and truly ' second ' sight.

These narratives from old time find their parallels down to our latest day. They abound, as might be

[1] Ezek. viii. 2, 3.

anticipated, in the vast collection of the Lives of the Saints, and certain well-authenticated examples are often quoted. There is no reason to doubt, for instance, the evidence on which it has been asserted that St. Ignatius of Loyola, St. Philip Neri, and St. Peter of Alcantara were seen at a distance from the place where they abode in the flesh, by devout clients who invoked or needed their help. St. Alphonsus dei Liguori, as his biographers relate, was observed to be lying in ' a prolonged ecstasy ' from the morning of September 21, 1774, until a late hour of the following morning. He awoke from it to tell his astonished attendants that he had been at the bedside of the Pope, Clement XIV, who was just dead. The Pope, in fact, died at that hour, and witnesses declared that they had seen the saint while he comforted the dying man in his last moments.

Another instance which cannot easily be doubted, of seeing at a distance, is on record in the Life of St. Pius V, who had brought together the great Catholic naval expedition which, under Don John of Austria, broke the Turkish power at Lepanto, October 7, 1571. Pius V, in his Roman palace, saw the combat as from a window, and saying, ' in this very hour our fleet has engaged the Turkish, and is victorious,' he turned from official business to a prayer of thanksgiving. It is remarkable how frequently intimations of a similar kind are associated with battles by land or sea. Now, we may take it that these frightful events create in the moral world tremendous explosions of energy, and thus agitate the element, whatever it is, by which phenomena preternormal like the above make themselves felt. Let me add two or three specimen narratives, the features of which are peculiar, while

the evidence appears to be unassailable. The first tells us of the assault on Ticonderoga near Lake George, in what was then the province of New York, July 10, 1758. Omitting some significant prophetic details, I read that this engagement, in which a Highland regiment was almost cut to pieces, was beheld at Inverary in Argyllshire, three thousand miles away from the scene, by two ladies and several men, including a Danish physician of repute. These ladies 'saw in the sky what looked like a siege going on, the different regiments with their colours, and many of their friends among the Highlanders.' They at once 'took down the names of those they had seen fall, and the time and date of the occurrence,' all of which tallied with the actual events.

As I am writing not many miles from Edge Hill I should also have liked to sum up the striking account of visions seen in the heavens at that place, for days together and by numbers, about Christmastide 1642, showing forth the various incidents which characterised this first serious combat of the Civil War, fought on October 23 previously. But I must refer you to the full account in Lord Nugent's 'Memorials of Hampden.' This wonderful story, as Lord Nugent points out, 'is attested upon the oath of three officers, men of honour and discretion, and of three other gentlemen of credit, selected by the King to report on these prodigies, and to tranquillise and disabuse the alarms of a country town; adding, moreover, in confirmation, their testimony to the identity of several of the illustrious dead, as seen among the unearthly combatants who had been well known to them, and who had fallen in battle.' The pamphlet from which Lord Nugent

quotes was printed immediately after the occurrence of these portents, and bears date January 23, 1642 (i.e. 1643).

A most unusual circumstance of this ghostly Edge Hill fight was the 'sound of drums,' and all the clamour incident to war ; but similar narratives are extant, among them one of which I felt the vivid charm on reading it, many years ago. Unless memory deceives me, it ran thus : A household in the City of London had a son who was then serving under Lord Gough in the expedition against the Sikhs. On a certain night—it would be February 15, 1846—as they were sitting up late, they heard all at once the noise of an immense battle with furious discharges of cannon ; they saw British and Oriental troops contending together, and the whole progress of a fierce engagement until the British overcame. In due course intelligence arrived of the victory at Sobraon, February 16, 1846 ; a battle that 'began with a two hours' artillery duel in which the Sikh guns were the more powerful, and the British heavy guns expended their ammunition.' I do not remember what happened to the soldier whose relatives heard in London this tremendous commotion on the banks of the Sutlej, a third of the globe, so to speak, intervening. But his presence was the Marconi centre from which its vibrations reached them.

So much for the 'crumpling up' of space by this agency which we label, but do not explain, when we call it telepathic. The extension, however, of spatial vision to enormous distances baffles our imagination (I do not say our reason) less than the forward or backward glances along the path of time, by which all

objective differences of past and future from the present would seem to be obliterated. Here it is of moment to distinguish between the philosophic sagacity of deep thinkers like Machiavelli, Burke, or Joseph de Maistre, and the sensitive intuition where no reasoning appears,—nay, where none is possible—as when children picture and describe events afterwards accomplished, but not in the least understood by them.

A perfect instance of such foresight is given by the Duke of Saint-Simon, as reported to him long before its fulfilment. I mean the deathbed of Louis XIV seen in 1706 (the King died in 1715) by 'a very ordinary child, more than commonly ignorant and simple,' who was made to do some 'crystal gazing,' as we now term it, but in water, for the amusement of the Duke of Orleans, afterwards Regent. The Duke told the occurrence in detail to Saint-Simon next day ; and both were greatly exercised by the child's declaration, to which she held firmly, that she saw neither the Dauphin nor the Duke of Burgundy, his son, about the dying monarch. *We* know, of course—but who could have known in 1706?—that these natural heirs to the crown predeceased Louis XIV. The historian, a devout Catholic and convinced that diablerie was at the bottom of such 'scrying,' is a reluctant but all the more trustworthy witness. Shall we say that the Duke of Orleans was playing on his credulity? How, then, account for the highly improbable circumstance of that Duke's foreseeing, or guessing at haphazard, events so unlikely as the death of Louis XIV's two immediate heirs before the King himself, at that time sixty-eight years old? If the child did not prophesy, Orleans did ; in either case the future was beheld as present ; and

a very dangerous future for a man in the Duke's position to predict.

That is what we may say, but if one instance should break down a troop will spring up in its stead. History, ancient and modern, as well as yesterday's newspapers, bears record of foreseeing and forthseeing, not arranged or devised by experiment, but unexpectedly given to persons at random—to many once in their lives, to others often, to some almost as if they were by nature sensitive, before whose inward eyes the future must unveil its secrets. How numerous are such cases of prevision hindering a disaster, not by definite scenes held up to the imagination, but by presentiments dim yet sufficiently powerful, you may calculate from the ease with which the Psychical Research Society has collected specimens ranging over the civilised world. Everybody has been told of similar occurrences; I myself know of one, resembling exactly—apart from the personal character of the hero—an incident brought on the stage in the *Silver King* by H. A. Jones. My acquaintance was saved by his persistent *malaise* from travelling in the train that was wrecked and set on fire at Abergele, in a well-known disaster during the 'sixties.

But a legion of doubters will object that coincidences must happen; and, as Aristotle remarks, it is probable (he might have said it is certain) that the improbable will some time or other come to pass; therefore we can draw no inference from prophecy. This manner of reasoning, I confess, leaves me at a standstill; not because it is conclusive, but on quite another ground. It seems utterly to misunderstand the point at issue. Things most unlikely fall out; of course they do. And coincidences are unavoidable

which look very like design. I grant so much. But our problem is concerned with a mental process—vision or presentiment, call it by the name least question-begging—where the mind exerts a power not otherwise put forth ; and we want to discover what such a faculty implies. Is there the beholding at a distance of a highly-complicated moving scene, with its actors, their dresses, attitudes, gestures, as if we were bodily present to it ? How is coincidence the explanation ? Or take it that the child in Saint-Simon's narrative had that vision of the deathbed of Louis XIV ; does coincidence even tend to clear up the process by which the minute incidents of an occurrence several years removed will be anticipated, as though by an historical painting, in the mind of an ignorant girl ? What would be the law of nature and psychology by which a coincidence of this kind might, or rather must, take place ? A pre-established harmony, interlocking at points like these, would be more wonderful than telepathy or revelation from spiritual sources. The improbable here borders on the inconceivable.

According to the School-philosophy, whatsoever has any mode of being may become an object of knowledge, even to man, who as essentially rational is fitted to be made a ' spectator of all time and all existence.' Now the future is rooted and founded in the present ; and it has this aspect of reality (*rationem essendi*) that it surely will one day be. We can, therefore, conceive a mind already viewing it in this intellectual order, by the appropriate medium or light ; whereas, if the light be denied, coincidence tells us nothing except that two events are alike or simultaneous, apparently for no reason. I conclude that those who cannot get rid of the evidence which establishes the facts, are

bound to admit clairvoyance, or else revelation from intellectual sources in the unseen, and probably both.

But more remains behind. Long ere M. Liébault undertook by hypnotic suggestion to treat diseased subjects, the power of affecting not only the mind but the body by other than sensible media had been observed—a power that wrought good and harm. In the first place, mental impressions have always been recognised as capable of acting like physical agents on the man who had them, although not themselves physical. Terror and pity and joy produce their characteristic changes in the system. 'Thou tremblest, and the whiteness in thy cheek is apter than thy tongue to tell thy errand.' Good news behaves like a skilled physician; Job's messengers bring not merely tidings of misfortune but fever, paralysis, or even death, in their train. This instant action of knowledge on nerves and muscles, or on the secretions which are purely physical combinations, has always appeared to me a refutation in fact of the materialist, for whom thought should be ever a result or a side-product of energy, but should have no strength to modify its movements. Now we may extend the natural activities consequent on thought so far as to take in this wide province of suggestion, which does not require personal contact. Suggestion is a process from one mind to another; or from one state of the same mind to another; and healing, it is alleged, can be the outcome of action at a distance. We have thus travelled into the dense wood of mysteries where Materialism finds no path and no exit.

Medical men, whose predecessors ridiculed Mesmer and drove him into exile, now perceive in hypnotism a healing value. It is classed by them

among therapeutic agents which may be safely prescribed under conditions. M. Charcot's view of it, as an adjunct of hysteria, commands assent from none who practise it most successfully. But, once admitted, the power cannot be tied down to any method of working because we think that method the only reasonable one. It is our duty to learn from experience and to go by results. If hypnotic suggestion is capable of acting at a distance, it will hardly be stopped by a declaration of 'no thoroughfare.' How mind communicates with mind, or by what means will affects will is as yet an impenetrable problem, though we ourselves do and suffer the things which we find so much beyond our intellectual grasp. To construe hypnotism as if it were a department of medicine would be like the error which I have combated all along of reducing the Vital Principle to mechanism. With suggestion for our therapeutics (to whatever extent available) we leave the doctor's consulting-room and pass into a more spiritual atmosphere, a higher world. Faith is not a drug; it is, in the admirable language of our Schools, an 'act,' deliberately done, and effective. We may define it as 'expectant attention,' or the supreme postulate in the art of mental healing. Naturally, I leave theological 'faith' on one side in a discussion like the present.

'Attention' is due to 'interest' which, as we saw, is life's peculiar attribute. To expect is one step towards the production of a result desired. When scorners refuse credit to prophecy because it works its own fulfilment, they should search a little more deeply into this law, for such we may grant it to be. Hence a long chapter—but I shall not write it now—on good and bad omens, euphemisms, deprecatory

sentences when we talk of misfortune, and on all that language can bring to pass by the power of the word. Omitting this folk-lore at present, let us observe how gradual is the advance from the simple fact of attention, which limits or selects,—reducing some objects, as it were, to shadows while giving to others a body and momentum—from a 'brown study' I say, to Sir Isaac Newton's absorption in thought, almost imperilling his reason ; and thence to paralysis of sense, to deep sleep, to the temple-trance of Greek and Eastern religions, to catalepsy lasting even months or years. But such apparent death has manifested healing properties. Sleep is a therapeutic process, dream a physician. Intellect seems able to resist infection. So does insanity, we may be told. Then the cause would be alike in both cases, viz., that outward physical impressions fail to dominate a mind dwelling on its own thoughts. From a similar point of view it is perhaps tenable that epidemics sweep away aboriginal tribes the more easily, because their feeble minds offer no resistance to these invading powers ; in other words, the suggestion of disease finds none to counteract it.

Western science has put faith in impersonal, that is to say, dead chemical forces ; Eastern mysticism in the Healer—the 'hakim,' whose presence is itself a force. To-day we are hearing of mind-cure, faith-cure, Christian science, mental hygiene. These are practices with more or less of theory behind them ; but Schopenhauer would laugh at such theorising and insist on the Will to Live, as really scoring triumphs imputed by the unphilosophical to their absurd opinions. If, as I said, we use the word 'faith' in this connection, it ought never to be forgotten that

faith is active, not passive ; that it involves an exercise of will ; and therefore it grasps, not merely contemplates, its object, by an energy of the whole being. This, then, is so much more than opinion as life is more than a speculative view.

Has any one—William James, for instance, who likens the modern self-healing faith to Lutheran 'apprehension'—remarked on the affinity of all these confused yet strangely potent influences to Kant's Practical Reason? I do not know. Conduct, however, is determined by real motives, inherent in particular kinds of action, so that whoever does act after that manner necessarily obeys those motives ; but the man's account of them may be ridiculous or futile. The syllogisms framed by Christian Science are illogical to a portentous degree. Yet, say its adherents, Christian Science heals. In any case hypnotic treatment sometimes heals; and its method is affirmation of health repeatedly suggested to the patient until it takes effect. No scheme of reasoning about the process need intervene between the trance-mind and the cure. Nay, the patient may minister to himself, apart from a medium or hypnotiser ; as when the pilgrim to Æsculapius lay down to sleep in the temple at Epidaurus and awoke a sound man next morning. You will take these allegations of Mrs. Eddy's disciples or of Pausanias or Cicero for what they may be worth. (Pausanias, 2, 10, 27, etc., Aristophanes, 'Plutus'). To me they serve now as illustrations and nothing more. But I draw from facts which have been really ascertained a general inference. It is that since expectant attention can do so much for a man's own self, there lies hid in his nature a formative principle, needing only to be called

into act, which will resist and overcome disease, not in every stage perhaps, but without sensible media. The old *vis medicatrix naturae* is no fiction. Trance reveals, but surely does not for the first time produce it. Our daily business, involving an expenditure of energy that must be somehow made good, conceals the operations always going on to restore strength and repair waste ; whereas in deep slumber the principle of life works unimpeded, like the surgeon upon a subject under chloroform. The Healer can now have his own way. Thus it would appear that drugs are not causes but instruments ; and we have once more escaped from matter to spirit.

I will sum up so far as the argument, begun so many letters back, has guided to trustworthy conclusions.

There is evidence from all ages and a cloud of witnesses, agreeing but not conspiring together, for the phenomena termed telepathic, as occurring both in and out of the hypnotic trance. These testimonies would certainly be admitted in a large percentage of cases, were it not that the facts they involve transcend the laws, that is to say, the course, of ordinary experience. They seem to set at defiance our ideas concerning space, time, energy, and physical or even mental action. Hence we cannot be surprised if they are met with incredulity. On the other hand, Hume's famous objection to miracles—that lying and imposture are indefinitely more probable than that new phenomena should violate Nature's laws—will not hold good here, unless by a perfect induction we know those laws completely, which it is clear that we do not. ' Nor can we give the whole account of any one thing whatever,' says Bishop Butler, ' of all its

causes, ends and necessary adjuncts, those adjuncts, I mean, without which it could not have been.' We are quite incapable of judging beforehand, as if from the nature of the case, whether elementary media surpassing those through which the senses perceive their objects, may not exist for the mind. We do not know whether action at a distance, without any medium, is possible or impossible. . . . That one mind should communicate directly with another is not rendered incredible by the circumstance of its using speech and gesture to express its thoughts for common purposes. In short, no judgment *a priori* bars the existence of telepathy, clairvoyance, or faith-healing, on the ground that they are contradictions of our reason or excluded by a perfect induction of the facts.

On the other hand, they become antecedently not incredible by the acknowledged character and achievements of the dreaming state. For dreams, even if illusory, show that the mind can swell out time to immense periods, fill moments with a life's adventures, and give the impression of space extended farther than human measurement. Moreover, the same identical and peculiar dream may occupy two slumbering imaginations at once, though the sleepers lie at a distance from one another. I have experienced this myself. And coincidences of the most minute kind have been registered between dreams and events yet in the future. Add to this that the sleeping subject exhibits design and puts forth special powers whereby, even in the dark, without employing any of his senses, he manipulates instruments, writes intelligently, meets and conquers perils that would daunt him awake. The analogy between dreams and hypnotic phenomena, we must conclude, is all that logic can demand.

But similar acts of vision, prophecy, and healing,

are said on unimpeachable testimony to have been observed outside the trance-condition. What valid motive is there why we should reject such evidence? I know of none. It is most unscientific to argue simply from the nature of the thing asserted to its non-existence, unless it involves a positive self-contradiction. But these phenomena, granting an intelligence not wholly absorbed in matter, exempt under due limits from the trammels of a sense-bounded space and time, present no difficulty to the mere reason, although they give a shock to the imagination. The fairy tale has a value for philosophy by its breaking loose from the monotonous repetition of similars which physical science finds so useful and clings to it as long as it can. But new phenomena interrupt the beloved routine even there. The atom dissolves; radium and its phases being back the alchemist's romance of transmutation; chemistry itself wears an air of symbolism with changing masks and mysteries beneath. We must then be prepared for surprises no less overpowering in the dark and unfathomable abysses of the human mind. It is an argument *a fortiori*.

'If there be truth,' said Andrew Lang, 'in even one case of "telepathy," it will follow that the human soul is a thing endowed with attributes not yet recognised by science. It cannot be denied that this is a serious consideration, and that very startling consequences might be deduced from it.' Now I am bound to affirm, be the consequences ever so startling, my own belief that minds, whether of the living or the dead, have been proved to influence other minds not by the ordinary channels of sense but by processes where sense does not enter. A single instance avails for the ends of evidence just as much in biology as in physics. The instances, however, are numerous to

which no valid objection can be fairly raised, of phantasms of the living seen at a distance, veridical dreams, fulfilled predictions, post-hypnotic suggestions carried out, and the related psychic phenomena. No calculus of chances will account for such effects on a theory of coincidence. Official science would reduce these phantasms or appearances to 'hallucinations,' i.e. perception of objects which are not there. But false perceptions will not convey true knowledge of the distant or the future. Some existing mental cause will require to be invoked. We are accordingly shut up to these alternatives ; either the percipient mind is the cause, or other minds of the living or the dead are acting upon it, by ways with which the senses have nothing in common.

Certainly that is a serious consideration. For if the minds of the dead communicate with men in or out of trance, there is another life beyond sense, after the body has returned to its primal elements. Or if the percipient receives this knowledge from the living, it proves that the soul may survive when its earthly tabernacle is dissolved. Proves, I insist, not as an abstract conclusion from abstract premisses, but by setting before us experimentally a series of events in which the soul perceives and acts as though already out of the body, and independent of its limiting conditions. The soul exists, therefore, here and now, in a world of spiritual being. Matter has not produced it ; matter cannot destroy it ; matter, as science understands the term, and in the visible shape at present associated with the mind's normal operations, is not necessary to its action in the unseen. For 'the things which are seen are temporal ; but the things which are not seen are eternal.'

LETTER XI

A PROFESSOR ON MATTER AND ENERGY—WE REJECT MONISM—TWO VIEWS OF DARWIN

My dear Friend,—'The things which are seen are temporal; but the things which are not seen are eternal.' I ended my last letter on this note, struck by St. Paul as if the dominant to a mighty orchestral symphony, where contrasts the most extreme unite in bringing forth harmonies to enchant our spirit. Religion constantly anticipates, I do not say the particulars but the leading principles and broad views of genuine science. Between them we feel, despite their unlike methods, that a secret analogy runs. Such indeed there must be, if reason laid the world's foundations and guides man along the upward path. For reason cannot deny itself.

I open one of the latest volumes on matter and energy, to find in it a passage parallel to mine just set before you. 'The Apostle Paul,' says Professor Soddy, 'had no thought of physical things in his mind when he used the (above) words. But they can be applied with profit to illustrate, perhaps more forcibly than any single sentence, the essential nature of energy. It is only the temporary changes in the form and relative amount of energy which are manifest. So long as energy neither changes in amount nor position in space, it belongs to the unseen and

eternal. No direct evidence of its existence can be obtained.'

Would scientific observers, then, call in question the continued reality of such a power, once detected, because it seemed to disappear? Not so by any means, for 'if in similar cases changes in the energy have occurred, the existence of the energy may be deduced by analogy.' Let us substitute, instead of this physical though strictly unseen entity, the mental and spiritual being which Easterns know as the Self, and which in my pages I have commonly termed the soul or the Ego. To all save its own consciousness it is hidden, except so far as it manifests its presence by material, or, we will add, telepathic changes, which exhibit intelligent results not otherwise to be explained. Suppose an end to those changes; deep trance, swoon, catalepsy, not only reduce the organism to an insensible condition, but, as already noted, may simulate death, deceiving the physician, leading sometimes to premature burial. Here now, let revival take place; the signs of life be given once more. Was the Self extinct during the hours or days between? Is energy extinct when it changes neither its amount nor its perception? The electric current ceases; but does the source of it in the unseen fall to nothing? Modern insight distinguishes most exactly between the permanent energies which lie beneath matter and their passing manifestations. Apply this to the knowing and willing Self. The argument in both orders of existence is identical.

I will take a second quotation from my instructive author. 'The modern habit of thought,' he says, 'recognises things as having a real existence, apart altogether from the particular qualities or properties

by means of which the things make themselves known to the five senses.' I pause in my citation to remark that this doctrine may clearly be extended so as to take in the whole of experience, mental as well as sensible ; and that it bears a strong resemblance to Kant's assertion of the thing in itself, though without his confusing inference, handed down to Spencer, that the Real is the Unknowable. However, let us continue, 'The acceptance of this habit of thought among scientific men,' Professor Soddy tells us, 'has been due mainly, not to any formal proof, but to its fertility and to the undoubted value of the results which follow from it. Deep down somewhere in the processes of thought the ultimate test of reality appears to be the Law of Conservation. Does the soul exist? If so, it must be immortal. Is matter real or a mere impression? It cannot be created or destroyed, and therefore has an existence apart from the mind. Lastly, has energy a specific existence, or is it merely a convenient abstraction? Energy is conserved like matter, and therefore obeys this test of objective existence.'

What are we to infer from the collocation in a paragraph so luminous of these three orders, each abiding side by side in a universe where each has its peculiar but undoubted manifestations? Mind cannot be explained in terms of matter, neither can energy be reduced to extension. Each order, marked by properties and qualities not transferable outside it, is certainly real. But science affirms that, if real, it is permanent in its source ; and from this we derive our Law of Conservation, which does indeed state the same thing under a different aspect. All possible changes are only states of the identical reality from which they

flow, by which they are sustained. Substance, as the good old Greek and Latin words denote, underlies succession.

I am well pleased to have lighted on this crushing answer given by science to a psychology not yet banished from many text-books. The late William James, for example, wrote somewhat jauntily that 'the term soul explains nothing and guarantees nothing. Its successive thoughts are the only intelligible things about it, and definitely to ascertain the correlations of those with brain-processes is as much as psychology can empirically do.' (Make no attempt, by the way, to read this dogmatic sentence aloud; it would set your teeth on edge.) Now is it not a wonder that William James, acute as he was, never paused to distinguish between the 'successive thoughts' and the succession into which they came? Why any succession at all? How does one thought lead on to another? If because changes go forward in the brain—material changes—we are brought back to matter and energy as permanent realities of which these are manifestations. So, then, the Self shall be a fiction, but energy not, matter not; even apart from phenomena they shall be something more than mere states. Professor James has been already answered by sound philosophy in the words of Mr. David Syme, 'We cannot have a state without a subject, a property without a substance, thought without a thinking subject, or function without an operating agent.'

But we have still to complete our borrowing from the writer on energy, lest I should be charged with the suppression of remarks unfavourable to views contained in my previous letters. For he says, 'Now

consider the essential quality of all the phenomena of the occult world—apparitions, ghosts, spirits, astral bodies, and so on. It is that they are not conserved. They appear no one knows whence, and they disappear no one knows whither. They do not obey this test of reality, and the doubt remains how far they exist apart from the brain which apprehends them. It would ill become science (i.e. physical science) to deny the reality of things with which it has no concern. But it has most definitely, but at the same time limited itself till now to the recognition of only those existences which appear to obey the Law of Conservation, and for which, therefore, there is this much proof of reality.'

In principle I take no umbrage at a series of statements which, while they define the claims of science, thereby limit them. It is incumbent on those who believe in phantasms of the living or the dead—which, anyhow, must be effects—to assign causes distinct from the brain of the recipient, that will account for the phenomena. The Spiritualist affirms causes that may be real; but he is bound to prove their intervention. To such as invoke telepathy alone, and not spirits of the dead, causes are given, they would say, in the embodied souls between whom that supersensuous communication takes place; the facts being certified, what has to be shown is the process. These 'occult' manifestations do reveal by their occurrence in every country and period that they have permanent sources corresponding to their nature; hence not cerebral vibrations, but supernormal intelligent powers. It is the very claim of psychic research to have shown as much by experiment and well-founded testimony. The Law of Conservation

is for men like Myers, Hyslop, or Barrett, for Du Prel and Hudson, one of the strongest bases on which they rear their philosophy of survival. They would all echo Goethe's oracular verse, 'Kein Wesen kann zu nichts verfallen,' 'no being can from being fall.' Death will be only the beginning of another stage, a gate not a tomb, if the facts of telepathy or clairvoyance are verifiable. But now we draw near the heart of this controversy from a fresh line of advance. I will state my position once more. To scientific philosophers I grant that, in Occam's phrase, 'Entia non sunt multiplicanda praeter necessitatem' —well Englished by Professor Soddy in the volume just quoted,—'We make up our minds to accept as few fundamental things as possible which cannot be explained in terms of anything else.' But I do not grant the universal postulate urged upon me by Monists, viz., that all being is reducible to one formula representing one substance, reality, action, or whatever this All-and-One may seem to be at last. Identity of substance is an hypothesis, not a self-evident truth. As an hypothesis it runs full tilt against the difficulty of resolving mind into matter and matter into mind, or both into a third something which is neither, yet exhibits these two series of contradictory attributes attaching to itself, so that it feels and does not feel, thinks while not thinking, is conscious yet at the same time bereft of every psychic power.

I wish to be guided by the whole experience lying at our disposal; to make the universe thus far known my premiss. I see no way of bringing it down to the formal identity A = A. On whichever side it is taken real things present themselves that refuse to be explained in terms of one another. We can, we do,

think intelligently and to practical purpose about extension, called in yet more abstract terminology space; but extension is not thought. Motion through space is real, unless we declare science to be a dream and the system of the heavens an illusion. So is the progress of mind from latent to explicit knowledge a fact as certain as the planetary orbits; but these kinds of movement have nothing in common except a very difficult analogy. Mental development is not change of place. The will suggests to makers of language that they should describe it as energy; but physical energy it is not, however related to the action of nerves and muscles. An identification of objects which overlooks the character of each, or sacrifices one in an effort to derive it from the other, deserves to be called not science but obscurantism.

Observe then—and forgive my tone of Sir Anthony Absolute; I mean only to keep you from falling asleep over a dry argument. The false Duessa known as modern science in newspapers, in sixpenny tracts professing to be rationalist, and in popular pleadings for a cloudy Monism (such as Professor Haeckel's 'Riddle of the Universe'), aims at identifying Life with antecedents not living, of which it is purely an effect. Were this granted by mankind at large, in the same way as they now, consciously or unconsciously, deny it, what would follow? Thinkers of very unlike style and character, unbelieving as well as orthodox, agree that a new type of civilisation, a new morality, a new art and literature, must arise, if the secondary, derivative origin of mind and conscience be once established, from matter or an unknowable X, instead of tracing it to God, the Father of Spirits. 'It will be found,' says Lord Balfour, 'that the inner

discord which exists, and which must gradually declare itself, between the emotions proper to naturalism and those which have actually grown up under the shadow of traditional convictions will, at no distant date, most unpleasantly translate itself into practice."

It has been found already ; from free love to freedom of suicide many thousands have run up and down the gamut of a philosophy that ' assimilates man to things.' However, my drift is not yet to argue from consequences inherent in the system to its necessary falsehood, although such reasoning is valid and to be employed in due course. I am rather bent on illustrating the methods here brought into opposition. Materialist science proceeds by the calculus of identity at whatever sacrifice to patent facts. But human nature is alive to differences; and, as travellers report, the higher the type of mind so much the more is it sensitive to distinctions that escape the barbarian and the savage. Without distinction, no interest. When Spencer depicts a world of homogeneous elements resting inoperative, we turn away from that universe of death. But dead it will remain if no difference be introduced, and whence can that come ? The reduction in human thought of life to mechanism would fatally cool it down to such a universe by rapid stages of disintegration. For life is difference in unity subsisting within, whereas a machine can be set in motion only from outside. All machines run down when the supply of energy given them is exhausted. If, on the contrary, life of the spirit is not a machine, it need not perhaps run down at all. In any case, we have allowed the materialist to offer any account he could of vital action by combining as he pleased atoms and energy. His failure is acknowledged ; for he takes

refuge in the unknown and unknowable. Thus we make good one fundamental difference in things as they are. Life, even of the lowest type, is for ever different from the matter in and on which it may act.

Let us now look at man again, taking note of the differences by which he appears to be most human. With what eyes shall we look? The hundred eyes of Argus would not be too many if we desire acquaintance with this monster, this miracle, among Nature's products. Imagine the marble statue of Condillac before us, at first inert, and beautiful only by its fair proportions, then opening on the world one sense after another, as it comes to life, moves and feels, thinks, loves, wills—turns in fine to a conscious and self-conscious Adam. Is it not clear that the spectator also would require a fresh sense at every advance the living statue made? If he could do no more than see, his interpretation would yield him only a phantom of light; if hearing were his one means to apprehend objects, the Memnon-tones would appear to sound from the invisible. And that which is true of sensitive activities, will it not hold good when the highest qualities and causes are to be scanned? As the great universe lays bare its riches in succession to the growing mind, so man is a gradual revelation to himself. He becomes a civilised creature by development from within. He is an explorer of his own soul. He turns artist, poet, saint, hero, philosopher, that he may fulfil his destiny. He knows himself as an incarnate purpose, and he cannot be still. But all these attributes and possibilities require in us who would say what man is, what he ought to be, organs of cognition in some form equal to them; and if one be wanting, our analysis cannot but fail on that side.

Again, when I am inspecting a piece of machinery, a poem, or any other combination of details, it is not enough to consider the parts, I must ask what they are for. Their end determines their idea. By watching the particular effect that an engine of any sort produces well and smoothly, I can tell its difference from other engines—in brief, I define it according to the work it does best, constantly and specifically. Now, if man had the same work to do as mechanical contrivances, we might resolve him altogether by the laws of mechanism. Or if he were but an animal among animals, Darwin's 'Origin of Species' might throw a vivid side-light on his physical development. Much stronger would be the illumination cast by Mendelism. But if he is something essentially higher than a brute, Darwin has not realised it, for he says 'there is no fundamental difference between man and the higher mammals in their mental faculties.' How amazing is a statement like this when we consider all that our race, in its noblest examples, has thought and done! Is man, then, although Hamlet would not grant it, 'a beast—no more'? What *are* his mental faculties? That is the question which from our nature goes on to enquire of our destiny. For, as Dr. Watts exclaimed in a memorable outburst, 'The mind's the measure of the man.' Here, too, Descartes' reasoning wins its full force, 'We can think away the body, we cannot think away the faculty of thought.' When we argue for human survival after death, it is the mind with its characteristic powers of which we would fain prove the immortality. This it is which logic and feeling demand—that the same spirit shall know itself on either shore of the River of Death. But as I continue gazing into the mirror of the mind,

deep below deep seems to open before me, and the assurance grows that since it reveals the infinite and eternal, known to man only among all breathing creatures, he will be stayed on the Reality which he conceives. That word is brought to him in the visions of the night.

You and I, my friend, have lived long enough to remember how the advancing tide of Darwinism rushed over all the land conquered from mental chaos, bringing in its wake 'an unexampled hurricane' that roared in every steeple until the churches might seem to reel again. Natural Selection was to abolish design in the organic world. Evolution, deriving man from the ascidian, doomed him to the fate which had overtaken the myriads of coral insects that built themselves tombs in the reefs of Ocean. But the hurricane has spent its force. Darwin, a beautiful character, a genius of observation, abides in history. Darwinism belongs already to an age that is gone. Mendel and Pasteur—devout Catholics both, and Mendel a monk of St. Benedict—control the future by the laws which they have discovered, of true breeding from definite types.

The late Professor Calderwood, quoted Darwin's admission touching the 'infinitely larger power,' possessed by man, well termed 'Homo sapiens,' than have any of these creatures that he rules. Yet again, says Darwin, 'Man, from the activity of his mental powers, cannot avoid reflection; past impressions are incessantly and clearly passing through his mind.' And this: 'A moral being is one who is capable of comparing his past or future actions or motives, and of approving or disapproving of them,'—which is pretty much how St. Paul describes conscience. What

vestige is there of such faculties, even in dog and horse enjoying human companionship? These friends of ours may be grieved at our displeasure, but they do not repent. For, as Kant, who is here a master, observes, 'Every example given to me of virtue must first be compared with the principle and standard of morality, to know if it to be worthy of being elevated to the rank of the archtype or pattern.' How could any organism limited to sense-impressions reveal that standard? The 'better self' by which we judge and reform our conduct has no parallel in the brute creation. Natural Selection is not repentance. If one species can be modified until it becomes another, we should never dream of calling the change reform. Animal ascent is not improvement; nor is its degeneration moral ruin. From this, the crowning point of view, man and the rest of animated Nature are incommensurables. 'There are no rudiments of the higher intelligence in the lower,' said Calderwood; and natural history fails to sustain the evolution of man's reason from unreasoning brutes.'

But men of renown, if they had not forgotten their Latin, cried out jubilantly, 'Nunc pede libero pulsanda est terra.' Professors admired for nothing else than their powers of mind did, I say, rejoice that their whole human pedigree ran up into the primeval forest with apes and monkeys, or dived into deep waters with slimy things whose being was appetite. Can you account for a perversion so horrible? To lose our divine inheritance was a misfortune that nothing could repair; but to be glad of it! Suppose the demonstration irresistible, surely science would have said to our fellow-man, as Jocasta to Œdipus, 'Mayest thou ne'er know the truth of what thou art!'

To make God superfluous and Man a beast of the field—this, in the net result, was popular Darwinism. But why reveal it? We put the query to materialist and agnostic. They answer with one accord, 'Because truth is truth, and has rights above all human interests.' The very men who will not have any absolute knowledge but only relative impressions; who bring down ethics to utilitarian values, to profit for the individual or the race; these are they who will be martyred, and humanity along with them, in the cause of a most deadly truth.

I can hear the scholar among them repeating after Ajax, 'Slay me in the light of day.' Was there ever a confession more eloquent of man's high claims, or of the sacred and inviolable law which rules over Nature, than such a dying prayer? For, if we once believed in our essential bestiality, art and letters, moral worth and religious aspirations, would have had their death-stroke. Science would destroy civilisation.

Contrariwise, interpret Darwin so as to leave the nature of mind intact, founded on eternal truth and holiness, it is clear that the development of higher organisms from lower, did it come to pass, would be an effect, not a cause, but at the most an occasion upon which design moved forward to its ends. Evolution becomes then an instrumental process which obeys a divine fiat. Darwin felt the need of some such acknowledgment when, concluding his 'Origin of Species,' he wrote: 'To my mind it accords better with what we know of the laws impressed on matter by the Creator, that the production and extinction of the past and present inhabitants of the world should have been due to secondary causes, like those determining the birth and death of the individual.' And so

he assures us that ' there is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one ; and that whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.'

Darwin was nothing if not candid. His prevailing mood of agnosticism here gives way to a reflection which most men feel drawn strongly to entertain, that some vast purpose is unfolding, by means of secondary causes, in their own lives and in the universe around. ' Laws impressed on matter ' can but signify intelligence guiding it to foreseen issues. That is a view the exact contradiction of chance resulting in harmonious and stable forms, in species and genera which move, on the whole, upwards to an order increasingly more beautiful and wonderful. It introduces mind as a cause, and sets down the struggle for existence as chiefly the resisting medium, familiar to the fine arts no less than to mechanics, whereby greater effects come about than would otherwise be achieved. But, starting from this paragraph Darwin should have kept in view that guiding principle throughout, above all when exploring the ' Descent of Man.' Yet he has lost sight of it altogether.

Logically, as conceived by the adherents of Darwin, Natural Selection extends the reign of a purely physical law over every department of life and mind. Spencer, whose biological principles antedated the ' Origin of Species ' by several years, did not shrink from writing with his sublime arrogance, ' Clearly, therefore the proposition that an " originating mind " is the cause of evolution . . . can be entertained so

long only as no attempt is made to unite in thought the two terms in the alleged relation.' Thus, in 1874, the apostle of synthetic philosophy blotted out Theism from the system by which animated nature has come into existence. Darwin was not quite so ruthless. But he certainly resolved intelligence into sensation. To him there seemed 'no great improbability in complex faculties, such as the higher forms of abstraction and self-consciousness, etc.'—mark this dangerous et cetera—'having been evolved through the development and combination of the simpler ones.' He had granted that 'no animal is self-conscious, if by this term it is implied that he reflects on such points as whence he comes, or whither he will go, or what is life and death, and so forth.' Nevertheless, he proclaims that from this zero level in the brute, by what Mivart well summed up as 'the chance action of natural forces,' art, philosophy, civilised order, and religion (all comprised in his 'et cetera') have had their being. On the other hand, 'Once admit,' says Mr. David Syme, 'that desires, purposes, and efforts are factors in organic modification, the whole fabric of Natural Selection falls to the ground.' Much less, then, will a negative condition so subordinate in the working out of species account for man's spirit, with its visions of truth, its aspirations towards a just and holy life, its longing to possess the infinite and eternal.

Once more we are called upon to rescue the soul's inheritance from dead mechanism, 'wrapped up in facts,' as Wigand said, and pretending to bring out that in the results which never was in the antecedents.

I conclude with my friend, Professor Geddes, that 'while Natural Selection remains a *vera causa* in the

origin of species, it exchanges its former supremacy for the more modest position of accelerating, retarding, or terminating the process of otherwise determined change.'

I have argued throughout as if some 'formula of concord' like this, regarding the bodily descent of Man, might be permitted. But candour demands from resolved Darwinians the acknowledgment that leading authorities in biology will not now grant even so much. Twenty years ago Professor Driesch, in those powerful Gifford Lectures already cited, told his audience that 'Darwin had failed all along the line.' Life must be accounted for, said Driesch, by a mysterious real principle which he called the Entelechy, and species were not due to Natural Selection.[1]

More recently, various competent biologists, of whom Professor Vialleton is perhaps the most eminent, have given up all attempts at explaining the origin of species by Darwinian methods. After the epoch-making year 1859, they say, the problem remains as dark as before. And in meeting this attack on the system called in French 'transformation,' another qualified advocate, M. Chardin, grants that a certain 'vital immanence,' prior to struggle and selection in the order of causality, has emerged. This would not seem very dissimilar to the 'Entelechy' of Professor Driesch. There is an undoubted harmony of arrangement in the organic world. But Professor Vialleton has insisted on the impossibility of deriving by any however gradual process a bird from a reptile, a bat from a climbing eater of insects, a seal from a carnivorous animal moving on all-fours. Nature still keeps the species apart and secluded. Types are permanent,

[1] *Science and Philosophy of the Organism*, i 266.

as Mendel proved by strict laws of inheritance, where we shall search in vain for Darwin's ' missing links.'

More than a generation has come and gone since I contributed an article on this subject to the *Contemporary*, at the request of Sir Percy Bunting. I said then ' It *was* an axiom that " nothing can come of nothing." In the popular conception of Darwinism everything comes of nothing. This, to my purblind view, is creation without a creator ; and I can imagine a fine treatise on " The Miracles of Atheism." But we are coming to perceive that Darwin's theory of selection is not the whole of evolution, nor its principal part. When the " Origin of Species " appeared, many took for granted that it explained everything and assumed nothing, and annihilated Theism. It does none of these things. It cannot help us even to that necessary beginning of evolution, the origin of life.

' When once it is realised that evolution takes us to the verge of the transcendental, and there surrenders to metaphysics, we shall have Mr. Spencer's disciples crying to the President of the Royal Society, " Doctor, the thanes fly from us." There will come a great revolt from mere natural selection and the survival of the fittest, when these are seen to be minor elements in a theory which, instead of turning all things to stone, like another Medusa's head, does but postulate a grander life in the universe. From that battle Theism is emerging, not only victorious, but purified. The majestic reasonableness of evolution, encompassing such orbits of space and time, may well lift our science till it becomes adoring wonder. The vanished worlds ; the myriads on myriads of species whereof remembrance holds not in that mutilated record of geology ; the groupings so intricate and suggestive

round many a central kind which seem like prophetic hints of an ideal but partially manifested ; the connecting lines in all directions, controlled by tendencies they do not, for all their multiplicity, abolish; the gleams of order in this otherwise so much admired disorder, where an idea is everywhere felt, yet always eluding observation ; the descent of species now inhabiting the world from species apparently divided from them by glacial epochs ; the undeniable stability combined with the inferred and plausible changes,—what are these aspects of evolution but a proof that life has grown up under laws which demonstrate a presiding Reason, but tell us we shall never fully comprehend it ?'

LETTER XII

THE ASSAULT ON THEISM : ROMANES REFUTED— PALEY AND CARLYLE AGREE

My dear Friend,—' Whirlpool is King ; it has flung out Zeus,' said the advanced thinker, Strepsiades, in the old Greek comedy. How modern is that verse of Aristophanes ! The ether, we are assured, has vortices which become electrons, which construct atoms, which coalesce into molecules, which combine as chemical substances, which transform themselves into protoplasm, which begets feeling, which originates mind—*et nous voici* ! The whirlpool, turning furiously on its centre, sweeps us round for a while, and then sucks us down. Life is an adventure in the Maelstrom, ending fatally for each of us.

Nothing is to our imagination so easily picturable as movement. This has been aptly termed the line of least resistance for thought when we begin to reflect; and scientific men, who are as seldom philosophers as they are poets, draw it on the blackboard by way of a simple account of all things before popular audiences at the British Association. Movement, again, what is it ? Merely change of position in space. Give, then, to the Professor of Biology a point which could feel itself to have changed its position ; multiply such points *ad infinitum*, and what more is required to build up the universe from the electron to the Professor ?

We may dispense with cause, mind, will, individuality, in our premisses, yet enjoy the round world and the fulness thereof in our conclusions.

From this angle we must view the great moving stream by which Darwinians carry on matter into genera, species, and at last the human race, having begged a 'shred of intelligence' wherewith to endow their molecules. It cannot, indeed, be granted them. However, their chief would allow no distinction as to origin and faculty between the human and other animals. 'I think,' he wrote, 'you will be driven to reject all or admit all.' True it is that Darwin held no brief in defence of any alleged commencement of life in general; he was concerned with species, how they arose, granting the existence of vitality in a few forms or in one only. His account of the living world as we know it was combined from two sources, variation in individuals of which the causes could not be made out, 'the various, quite unknown, or dimly seen laws of variation,' and the struggle among these individuals for a subsistence which did not increase in proportion to their numbers. The entire process could be reduced to mechanism; but it is Darwin's followers who have done so rather than the captain of the band.

I have not the slightest desire to 'turn a logical problem into a question of morality'—unless the argument itself reveals that ethical considerations lie implicated in the logic. But this may happen, as in fact it has happened. My earlier letters were directed to prove that the living cannot be derived by any mode of causation from the not-living. In what interest did I undertake to demonstrate this apparently negative, but really positive and fundamental proposition?

Certainly, in the interest of moral law and religious hopes. But history will not suffer me to deny that for ages some doctrine of life from dead matter was held on the authority of Aristotle, in schools the most orthodox, until Redi, Leuwenhoek, and finally Pasteur, convinced scientific men of the contrary. (I will just observe, in parenthesis, that Catholic thinkers never did concede that the element which essentially constitutes life was produced by matter ; but we must not now digress into their views.) Only by the development of logic applied to vital phenomena have we come to a point where ' Life from life ' is seen to be a law of reason, and therefore a law of experience. But the same demonstration has made it clear to us that this breach of continuity with the not-living, as it defeats the advance of materialist Monism, affords to ethics and religion the Torres Vedras, behind which they stand impregnable. So it appears that a ' logical problem ' may happen to be a ' question of morality,' not as though personal to Charles Darwin or Herbert Spencer, but as involved in the nature of the case.

What is, in general terms, the theory of descent ? ' It is,' answers Driesch, ' the hypothetic statement that the organisms are really allied by blood among each other, in spite of their diversities.' Now while we confine the hypothesis to organisms, without raising the question of mind, it does not greatly concern human interests how we decide the enquiry. Whether man's body was derived from a lower condition of matter, call it dust or flesh, will not affect his immortal spirit. The doubt which does signify is whether man's intellectual nature is nothing else than the ' shred of intelligence ' possessed by an ascidian or a mollusc, gradually modified but with no fresh

irreducible element added to it, until Socrates, St. Paul, Newton, and Darwin himself, come into the world each as an avatar, a re-incarnation, of the primitive ancestral being.

The 'Origin of Species' treats these two problems, of the organism and the intellect, as inseparably one. The lowly ancestor bequeaths to his descendants mind as well as body, an inheritance which on the physical side is in contact with a physical universe whence it can draw ever more abundantly, but on the mental there is no other intellect above or beyond it to help it in the upward march. A visible world exists, a spiritual one does not, according to the Darwinian method of evolution. Until human society ascends out of the jungle, no mind borrows from any other mind ; and at no stage whatever does mind create mind, after the first act of 'the Creator' whom somewhat dubiously we find mentioned at the close of the new Genesis, but whom the agnostic puts aside and the atheist eliminates.

Have I made this point clear? I hope so, for on it turns the claim of observers like me to bring forward our criticism of subtle theories, dealing with phenomena in provinces where we may be students but cannot be experts. The physical evidences, so to call them, piled up by Darwin or Weismann lie surely outside my competence. It is not on such ground that I would advance in order to save the cause of religion and philosophy. But when the origin, the nature, of human intellect is challenged, we are no longer unequal to zoologists ; neither is it probable that these high masters in their special departments will be qualified to handle the problems of intellect, which have been our life-long occupation,

from a metaphysical point of sight. Professor Ray Lankester, for example, wrote of Darwin as having 'completed the doctrine of evolution,' of which he said 'the most important initial conception is the derivation of man by natural processes from ape-like ancestors, and the consequent derivation of his mental and moral qualities from the mental and moral qualities of animals.' Zoology thus, he tells his readers, 'teaches, and may be said even to comprise, the history of man, his sociology and psychology.'

But, I ask, had Darwin, or has Professor Ray Lankester, a knowledge so profound of what the human mind is and does, that their judgment on the subject must be final? With all respect for Darwin, the answer is plainly in the negative. Very humbly this great man, but not deep metaphysician, took his mental science directly from Herbert Spencer and, on the ordinary line of English thought, from Locke. He seems to have imagined that sensism was a doctrine universally admitted. Romanes again, who devoted a treatise to 'Mental Evolution in Man,' showed himself quite at a loss to understand the position which he was attacking, as Mivart proved many times over in his decisive answer to that volume. Zoology will not take us far when we are searching into the mysteries of universal ideas, necessary truths, intuitive principles, and the objective value of science. To teach us *a priori* that from the sense-impressions of mere brutes our loftiest conceptions must be derived is dogmatism *in excelsis*. To assert, in the language of Romanes, that 'the process of organic and of mental evolution has been continuous throughout the whole region of life,' is obviously to beg the question. Can we affirm that from organisms such as garden

vegetables—which do not feel—others endowed with feeling have arisen by a continuous development? On what evidence? Here, manifestly, is a problem not of structure but of something immaterial, for which structure is unable to account.

Let me ask furthermore, How is feeling related to perception? Has the mere zoologist done anything that entitles him at this moment to take the chair of psychology? But I go on to the heights, and I enquire, How can the senses, external and internal, of brutes be transformed into faculties of conceptual thought and free will? Be the answer favourable or adverse to certain theories, is it not plain that only by introspection, and by reasoning founded upon it of the most purely mental character, do these controversies find their solution? Now with introspective analysis the kind of observation practised in zoology has next to nothing in common. The human mind escapes it. Will zoology pretend to explain, i.e. to make intelligible to our thought, a philosopher's reflection, a hero's deliberate self-sacrifice, a saint's love of God? At all events, such are the problems of humanity. Take them now into the jungle and the stock-yard, and see whether you can interest the denizens of either in ideas pursued for their own sake, in Platonic dialogues on the One and the Many, on Being and not Being, on the True, the Good, and the Beautiful.

Zoology, then, does not teach, nor can it 'comprise,' metaphysics. The notion that we make things intelligible by referring them to that which has no intelligence—be it element, structure, or function—will not bear scrutiny; yet this it is which writers like Professor Ray Lankester and even Romanes have offered to the world as a substitute for first principles

of knowledge and being. Reason is necessarily an attribute of the Reality on which all other realities depend. If not, they must remain for ever unintelligible. That is the objection to Darwinism, when it undertakes by a 'mechanical principle,' as Professor Lankester boldly declares, to 'reform the whole range of philosophy.' 'Yet,' answers Mivart, and we must agree with him, 'to say that the fidelity and affection of the dog, the maternal care of the nesting bird, or the actions of the insect which prepares food it cannot eat for a progeny it will never behold—to say that such things (let alone intellectual conceptions) are but minute motions to be explained by mechanics, is to mock us with unmeaning or delusive phrases.'

On the contrary, experience and experiment, with every science which takes its data from them ('the Given,' as it is now pedantically expressed) will acquire 'unity and authority' so far forth as they stand the test of self-evident mental affirmations, and no farther. I read in a late work by Dr. Scott, President of the Linnaean Society, that 'for the first time the Darwinian theory gave a natural explanation of the process of evolution, and at the same time of the great mystery of adaptation.' What can such language mean? Newton discovered the law of falling bodies, and his formula can be proved whenever we choose; but would it be correct to state that he has given an explanation of that which causes bodies to fall? Gravitation is a mystery after Newton, as it was before Newton. If Darwin had shown (which is far from being admitted like the laws of attraction and repulsion) that evolution follows a certain process, he would not thereby have cleared up the mystery of adaptation. For he does not even attempt to guess at the interior

causes which enable or compel organisms to adapt themselves to new conditions. Whatever opening the 'Origin of Species' may leave in this direction, it is to Lamarck rather than Darwin that we must betake ourselves if we would rise above the 'negative power' of Natural Selection in getting rid of the unfit, to a real power which selects positively,—even as in protoplasm it evolves and lays down the lines of the future organism upon a pattern, not by chance. That is the kind of principle we are seeking.

Listen to Driesch, a zoologist of unquestioned authority, on this subject. Variation 'indefinite in direction and amount' is postulated, he says, by the most conservative of Darwinians (who have apparently, I will add, borrowed this whirling 'dance of elements without a guide' from Lucretius). The beneficial variations (though why there should be any, unless by some sort of pre-established adaptation between them and the environment it is impossible to discover) must then be fixed as an 'average value' by inheritance. But why inherited, or how? Darwin takes such inheritance for granted. Nevertheless, it is generally denied as regards acquired characteristics. Weismann is the author of an hypothesis which makes the 'plasma' continued from ancestors to descendants the true cause of transformation, thus securing an advance upon Darwin. And Mendel has exhibited in actual working order some of the chief laws of inheritance, but also of reversion to type, with results that are not so hypothetical. Darwin, says Driesch once more, 'never analysed the phenomena of regeneration or of embryonic restitution—they lay in a field very unfamiliar to him and his time. I venture to say,' continues Driesch, 'that if he had taken them into considera-

tion, he would have agreed with us in stating that his theory was not at all able to cover them ; for he was prepared to make great concessions, to Lamarckism for instance, in other branches of biology, and he did not pretend to know what life itself is.'

To me it is a striking fact that the difficulties raised by such eminent observers as Wigand in 1874, Nägeli in 1884, and all along by Emil du Bois Reymond and Virchow, touching the origin of life, of species, and of man, by Natural Selection or mechanical causes, hold the field at this hour with increasing momentum. To oppose experts to experts on the zoological points in dispute is manifestly for you and me the one safe procedure. Therefore I took, in my last letter, a summing up of the situation, fifty years after Darwin's epoch-making volume, from the Professor of Heidelberg, whose Gifford Lectures made such a stir in scientific circles. While he would, of course, admit Natural Selection as a negative factor—and so say we all—of indefinite or fluctuating variations he observed that, at the most, they might give rise to transforming effects in the case of new quantative differences ; but they are ' absolutely inadequate to explain the origin of any other kind of specific properties whatever.'

Strong language, is it not ? Hardly to be reconciled with the assertion made by the President of the Linnaean Society that Darwin has resolved the ' mystery of adaptation ' ! But Professor Driesch illustrates without exhausting this inadequacy by instances, i.e. large masses of problems grouped together, like the following. ' Dogmatic Darwinism ' fails to account for the adaptations between plants and insects ; for properties which are indifferent to the life of their

bearer, 'being mere features of organisation as an arrangement of parts,' for complicated structures like the eye which act or are acted upon as functional units; for 'the first origin of all newly formed constituents of organisation, even if they are not indifferent,' since these rudimentary beginnings do not, and cannot, until combined in the unit they build up, serve any purpose at all.

The special claim of Natural Selection is that, by competitive methods, it adapts organs to needs. But how will it explain the power of regeneration which living beings possess and could not have acquired from ancestors that never exercised it? On Darwinian principles, a bankrupt who succeeded later on in paying his creditors their full demands, must have been descended from ancestors who were bankrupts, and who had developed the quality of repairing their losses, which they then handed down to him. Now this faculty of restitution may well have preceded all diversities in variation; and as it appears to be universal, it refuses the account given of it as acquired and so transmitted. But it is among the most useful properties that life displays. Therefore, as Darwin himself would have been driven to acknowledge, it proves that beneficial characteristics may arise before Natural Selection comes on the scene; and if in these wide-ranging instances, how much is left for the 'negative factor' to explain? In sound logic, when we have shown that purpose or adapted process need not wait until it has been selected, Darwinism as a general theory of descent 'collapses'—the word is not mine but my German Professor's, who concludes that 'the most typical features of all organisms remain as unexplained as ever.' [1]

[1] Driesch, *Organism*, i 266 *seq.*

We can now estimate the value of such a saying as Dr. Scott repeats, with apparent satisfaction, from Sir W. Thistleton-Dyer, when that famous man informs us that Darwin 'swept in the whole of Paley's teleology, simply dispensing with its supernatural explanation.' Whatever Paley's argument aimed at proving, its major premiss I take to be this, that where there is co-operation of various powers to an effect which none of them singly could produce or uphold, a principle of their united action must be given ; and that no such principle except mind is at last conceivable. The minor would then be a matter of observation—namely, that the world of organism lives and endures by virtue of co-operative action. And the conclusion is evident, that only by an 'originating mind' can we account for organised beings.

If Darwin dispensed with Paley's explanation on the ground that it was supernatural, obviously this amounted to a rejection of mind from the causes of evolution. His philosophy would admit design without a designer and purpose that had no intellect to guide it. Are not these inconceivabilities? Paley thought they were. I think so too. The reasoning on which that analogy moves of the watch found on a heath, has been strangely misconstrued, even by Stuart Mill. Paley does not say, or intend us to say, 'I know that men have made watches ; this is a watch ; therefore it was made by a man.' He is proceeding on a deeper line of reflection, as I have pointed out. He knew not simply that men made watches, but that the power of enabling them to achieve any work of art was the mind. And except the mind he could conceive of no other which would account for the innumerable combinations of means and ends in the

universe—itself thus presenting features similar to the adaptations he noticed in his watch.

Who will deny the analogies on which, as a matter of fact, Paley bases the argument from design? 'The universal characteristic of all living things,' says Dr. Scott in the work above cited, 'is that their whole structure is a system of mechanisms and devices by which they are enabled to maintain their own life and leave descendants behind them.' The minor proposition of Paley's 'Natural Theology' was adopted to the full by Darwin and beautifully illustrated by him. But what of the major, which implied Theism? As we learn from his correspondence, the Naturalist wavered in his beliefs, yet on the whole took refuge in ignorance, not seeing how to reconcile a doctrine of creation with the struggle for life. This, however, confirms the implicit dilemma that a more philosophical genius than Paley's would have brought out. Mind is certainly a real cause of design in human productions. Purpose effects adaptations. We are acquainted with no other principle that will account for them. Therefore, mind is the originating cause of organised existence, or we know of none.

The alternatives are clear; and any appeal to the Unknowable leaves Mind in possession as the one real power experienced by us which, in its nature and essence, is capable of producing the special effects under consideration. If, however, Darwin flees to the primal mystery of things as a First Cause, crying out with du Bois Reymond, 'We know not, we never shall know,' evidently Natural Selection is no more to him of a final explanation than was Paley's argument. Teleology will then be a fact which we simply accept but do not understand. The 'mystery of adaptation'

remains a mystery as before. Purpose is not yet resolved into chance ; but the attack of Materialism on mind becomes a stalemate. The battle is drawn.

This, although not satisfying philosophy, would be enough for religion which, on grounds distinct from any of Paley's special arguments, can always affirm God and the life after death. Carlyle spoke for human nature when he exclaimed, ' If I did not believe that there was intelligence at the heart of things, I should go mad.' His recorded conviction with regard to ' speculations of the sort we call Natural Theology,' may be set down here from the ' Essay on Diderot.' As is too frequent with passionate mystics in their disdain for the commonplace, Carlyle sweeps off to an extreme Orientalism or direct vision of the Eternal; but let us hear the sage. He breaks out thus:

' Of final causes, man by the nature of the case can *prove* nothing : knows them, if he knows anything of them, not by glimmering flint-sparks of Logic, but by an infinitely higher light of intuition, never long, by Heaven's mercy, wholly eclipsed in the human soul ; and under the name of Faith (as regards this matter) familiar to us now, historically or in conscious possession, for upwards of four thousand years. To all open men it will indeed always be a favourite contemplation, that of watching the ways of Being, how animate adjusts itself to inanimate, rational to irrational, and this that we name Nature is not a desolate phantasm of a chaos, but a wondrous existence and reality. If, moreover, in those same " marks of design," as he has called them, the contemplative man find new evidence of a designing Maker, be it well for him ; meanwhile, surely, one would think, the still clearer evidence lay

nearer home,—in the contemplative man's own head that seeks after such ! '

Our impetuous Thomas provokes a smile and a query. Is he not here striking out certain ' flint-sparks of Logic ' with his Thor's hammer from a pretty ostensible syllogism ? It seems to me an argument, not merely an assertion, that the finite thinker cannot explain his own thought unless he affirms (or ' posits,' in German phrase) an Infinite Mind. Frankly, I do not perceive how this view, which is as much Paley's as it is Goethe's, differs from that of Descartes in his Third Meditation, except by manner of speech. It proceeds, *per modum unius*, from the idea to the reality of the Eternal Reason, from the created seeker to the uncreated source of his power to seek—and, perchance, to find. In whatever way we move towards the Supreme Cause, there is indeed a principle which we know prior to every argument,—that mind alone explains mind. This cannot be directly *proved*, as Carlyle warns us ; but indirectly, from the mental confusion which follows upon its denial, it can, by the well-known process, in Euclid for example, *ex absurdo*. Precisely the ' absurd ' of the atheistic position it was which maddened Carlyle, on the one hand, while a superficial, or ' all too human,' hypothesis of ' the Universe being a Machine, and then of an Architect, who constructed it, sitting as it were apart, and guiding it, and *seeing* it go,' he denounced as ' an inanity and nonentity.' To be sure. A God absent from the universe, ' haunting the lucid interspace of world and world,' is a Lucretian figment, not required once we have got into motion the ceaseless rain of atoms, or of variations, that by good luck form Nature, organic and inorganic. ' If all things

can proceed without such a deity, why need they have proceeded *from* Him ?' say the dogmatic Darwinians. We, who hold that the Eternal is present in every element and every mind by His essence and power ; that the First Cause alone keeps all secondary causes from lapsing into nothingness ; and that He not only has given them, but is now giving them, what degree of reality they own,—we are not wounded by the scorn of Carlyle or the Atheism of Diderot. Our doctrine may be summed in the mystic Hebrew name, Immanuel, ' God with us.' We know that He never can be absent from the things He has made.

Am I straying from the problems raised by Natural Selection ? Not for an instant, it seems to me. As a guided principle in a system of adaptations, founded on tendencies to a definite order, that ' pruning knife ' —to bestow on it Mivart's very suggestive name— may well be in constant use, and the garden of Nature get the good of it. But such tendencies imply, as they require, a governing Mind. Since ' the living organism is more than a sum or an aggregate of its parts,' no description will do justice to it which overlooks this unifying principle. We might refer in the same connection to the law of homologies, by which similar parts vary—for instance, double organs of sight, hearing, and the like—in obedience to a deep-seated cause, identical, one would say, with the vital energy that restores lost members and, according to Driesch, becomes a crucial test of Darwinism to its discomfiture.

Nor let it be forgotten that organisms thus endowed exist by the hundred million ; that if we take, as I may term it, the radium time-standard of development in geology, they have continued during untold

millions of years to propagate their kind ; that, on evolutionary principles, they have also varied to meet these changing conditions from the Laurentian epoch down to Quaternary and present days, succeeding on the whole in bringing forth ' more wonderful and beautiful forms,' which culminate, after such a battle of elements, climates, ice-ages, and with internecine struggle among the living themselves, in man's appearance as King of creation. What other cause than design is conceivable of endless adaptations like these ? Harmony in Nature between organic and inorganic ; animals and plants at every stage adjusting their balance ; that is the supposition which rules all through the ' Origin of Species.' Terms of purpose are never wanting in its pages ; they recur, as they must, whenever a ' contrivance ' is to be analysed. But to separate purpose from mind, or even to oppose them to each other, is the violent paradox of an argument which defeats Paley by sweeping into its net the teleology that had furnished him with his data, while denying it any intelligible cause.

Darwin's position may be likened to that of the physicist who cried ' Give me matter and motion, I will construct the world.' How it was to be given he could not say. And the evolutionist stands in a similar predicament as regards the first beginnings of life, its internal power of adaptation to conditions, its variations that turn out beneficial. When feeling, mind, and intellect are to be developed by a parallel combat, he is just as much at a loss ; but, if they are put under his observation as existing already, he will attempt to sketch in outline the path which they have pursued. No critic should lose sight of Darwin's plain declaration, ' I have nothing to do with the origin

of the primary mental powers, any more than I have with that of life itself.' Yet, of course, it is in these 'primary mental powers,' that the secret of development resides. The 'intimate character of the data' (as we speak when looking back on evolution) determines what the result shall be. And to repeat our previous argument, if there are differences now known to us irreducible by definition to identity, those differences cannot have arisen from a single homogeneous cause. If intellect is qualitatively unlike sense, it cannot ever have been merely sense. Here looms on the horizon that which constitutes the human problem. Is it possible by Natural Selection, as Darwinians construe it, to render a reasonable account of the intellect which possesses universal ideas, and of the will which chooses absolute good? I am convinced that it is not. Let us consider the evidence available for a decision.

LETTER XIII

'WHY NOT DARWIN?'—THE ARGUMENT CONCLUDED

MY DEAR FRIEND,—You and I feel sure that we belong to a normal type of humanity; that our way of reasoning and taking life is not peculiar to ourselves; and that, as being natural, it needs no justification. *We* are, therefore, the problem which dogmatic Darwinism must resolve—we, and not an imaginary person, who is content to live without philosophy even of the silent sort, to die without having reflected on what may happen to him after death! All the great common questions are *our* questions. *Homo sum*; that is my definition and yours. I think with other men's minds, feel with their hearts, read their life-stories and comprehend them, because they and I have the same inheritance, called by the Greeks reason, by the Hebrews spirit or soul. It is one as a standard of thought, one as an ideal and motive of right action. It is not one in the sense of numerical unity; but the individual has been moulded on a type. Should Darwinism prove capable of satisfying us in theory and of setting before our eyes a motive of right conduct which our reason finds adequate, we cannot refuse to become Darwinians. The conditions, however, must be fulfilled. If we ask for a man, but are offered only a subtle and self-regarding beast of the field, this

Frankenstein of biology will be requested to take back his monster. And we shall know quite well that the thing, whatever semblance it may wear, is not our Father Adam.

Origin and Nature correspond. When we insist that our intellect is not derivable from the senses of the brute, we do so because the two orders of experience compared are irreducible to a common factor. And we show their incompatibility by analysis of each, by their opposite characteristics in action and result. For the facts we turn to psychology, not only the science but the immense array of evidence on all sides, however given. For the distinctions we make in those facts and the value we assign to them, intellect is the sole and sufficient voucher. No appeal from its decisions can be entered; for what except mind can judge of mind? If science has any claim to be true, it is in virtue of the First Principles to which it conforms, and which it holds but does not prove. To state the same axioms in a slightly different shape, Reason certifies the processes and conclusions that make up science; but science bows to the dictates of reason as self-evident, not as though experience could demonstrate the primary affirmations implied in its own reality.

This power of knowing truth as such, and therefore not as a merely relative statement which seems to us true, is what the whole human race understands by mind properly so called. It is Reason as distinct from sense. 'We know that we know, and there's an end on't.' Such knowledge, whether of events or of ideas and principles, we term 'intuitions.' That they exist, though sometimes denied on paper, is itself an intuition possessed by all men, illustrated

every moment in their conduct not less than in their thought. Manifestly, I am unable to distinguish between reality and illusion except by this direct, self-authenticating judgment, which will stand, however I try with Descartes to get quit of it. I call to your remembrance, *honoris causa*, the discussion between J. S. Mill and our friend W. G. Ward on this all-important first chapter of metaphysics. Mill, as a defender of the Experience philosophy, denied that intuitions not depending on experience were given. Ward answered to this effect: 'How do you know that you have had any experience whatever outside the present moment? By memory, is it not? And how do you know that your memory tells true? Not by the experience which it is needed to certify, as you must admit. Then, either you do not know that you ever had experience, or you know it by a power of thought which does not rest for its validity on experience.' The reasoning was irresistible; what do you suppose Mill did—the really candour-loving Mill? He granted that we enjoy one intuition, memory. He failed to perceive that the whole of his Experience philosophy had come down with a crash, undermined by Ward's dilemma. Thought—all thought—and consequently all applications of thought—must rely on self-evident mental statements, if it is to have any value in the world. Physics and metaphysics are equally the result of intuitions asserted to be objectively true by our minds. Whenever science is sure of its facts, the assurance is a mental state, carrying with it necessary certitude to all other intellects in existence by which its grounds are known.

Now we feel convinced that the sciences, abstract and concrete, have their several truths, beyond

the reach of doubt ; that man knows in ten thousand cases that which he professes to know. And multitudes of such affirmations, being universal and necessary, extend to all time, hold good in all space, were true before man existed, and would be true though he never had been. Reason says so ; reason guarantees the validity of the sciences which are purely speculative in form, and which lay down the laws of every possible universe. How does such a faculty square with Natural Selection, taken to be its sufficient cause? Let Lord Balfour give the reply.

'From the naturalistic point of view,' he says, 'reason is nothing more than one among many of the expedients by which nature has blindly adapted a very small and numerically insignificant number of living organisms to adapt themselves somewhat better to the surroundings to which they were born. That is all Naturalism can say of the human reason. . . . And its inadequacy must be evident to the man of science himself—on this ground, that if reason be only the product of irrational and mechanical causes going back to some illimitable past, reaching forward to some illimitable future, and accidentally, in the course of that endless chain, producing for a brief moment in the history of the universe a few individuals capable of understanding the world in which they live, what confidence can you place in reason if you use it for any purpose beyond the merely life-preserving or race-preserving qualities for which alone, on this theory, it was brought into existence?'

This argument is apparently sceptical, as denying that our reason can be relied upon for any but utilitarian purposes. Opponents may retort on Mr. Balfour that he overthrows science to protect

philosophy, but destroys both in the same act. Not so, I would answer. The reasoning is addressed to such as maintain a blind causation of things, whereby mind in man is an accidental contrivance for 'the higher organisation of matter'—a phrase I borrow from Professor Lester Ward. If reason is to be found neither in the beginning of things nor in their end; if it is but the psychological expression of certain physiological processes in the cerebral hemispheres, how can it attain to the objective knowledge that science declares to be its own? Lord Balfour's argument reduces blind Natural Selection to unreason, as indeed it is; while from the character and achievements of man's actual intellect he proves that it cannot have arisen in the fortuitous manner alleged. Our mind affirms reason as the ground of existence, real and possible; but to the Darwinian it is purely a convenience. We yearn after knowledge for its own sake; the only knowledge selected and capable of surviving on that other view, is the adaptation of means to ends by which the race may be continued amid a world-embracing struggle. Morality itself is a means,—not doing right and loving right because it is right; certainly not,—but like any trick or dodge that gives an advantage in the game by which you beat your rival. Now Darwin observes that 'under changing conditions of life, if any part comes to be injurious, it will be modified, or, if it be not so, the being will become extinct.' You will draw the consequence that morality should be practised so long as it is profitable, but 'modified' when it ceases to bring its subject gain in the competition for this world's favours. Morality, just as much as reason, would then be a convenience and nothing more.

Reflections of a similar import must arise when we set in comparison with Darwinian principles our experience as interpreted by the mind itself of all 'forms and pressures' of that which we term the Beautiful. What is their use? May not the process of evolution be carried on without assistance from the delight which we take in music, painting, sculpture, poetry, romance, religion, nay in love and friendship, precisely from the aesthetic point of view? These all touch in us a chord that vibrates to their sweet and subtle harmonies, to the sublime, the tender, elements by which they subdue our spiritual imagination—pass me the word, for I cannot mean a mere inward reproduction of colours, sounds, and attitudes; the something conveyed is symbolic, the faculty which interprets it is not sense or appetite, but strictly contemplative, disinterested in proportion to its height and depth.[1] Emotions we perceive in the lower animals which are stirred by music (turn and enjoy the moonlight scene at Belmont with Jessica, while Lorenzo tells of Orpheus drawing all nature after his lute); but our pensiveness —'I am never merry when I hear sweet music'— is ideal, reaching to the soul of things. How far removed from the struggle for life is such contemplation! 'Pacem summa tenent'; on the high crests of existence peace reigns. And this we feel more intimately, know more clearly, as the expression becomes more human. There is, you will remind me, battle-music, and the 'Iliad' is a fighting epic. No doubt, what then? Are not such heroic strains a glorying in death suffered for great causes, rather than inflicted with tigerish lust of blood? Highest of all

[1] Ruskin, *Stones of Venice*, iii: 'The first function of the imagination is the apprehension of ultimate truth.'

poems is that which we call the Gospel. Does any man dare to explain Calvary by Natural Selection? Calvary is the sublime of human pathos, the triumph of suffering, because it is self-sacrifice made perfect. It reveals the beauty of holiness in a divine light. He that was fittest to survive chose to die. Was it that a race of animals named men might be perpetuated on earth? Darwin's attempt to convert for his use the impression and consequently the mental 'idea' of Beauty, by making it a factor in 'Sexual Selection,' has broken down as regards organisms below the human, by acknowledgment of his successors generally. The most that can be granted, it appears is a vague heightening of the emotions, or an excitement caused by sounds, scents, colours, lively fantastic movements, and such-like stimulation, in which nothing that resembles æsthetic imagination proper is observable.

When we ask how does the apprehension of beauty affect man's own development, physical and psychical, we are brought to the consideration of type, and we quit Darwin for Plato. Ideal ends come into view which link the generations together, and all with a 'First and only Fair,' towards which they ascend. This, too, was a cause acting from the outset, a tendency or 'conation' implanted in the primal cells (the 'protoplast,' said Greek theologians); not material—as how could it be?—but immaterial, bent on producing the perfect man and woman who should fulfil their type absolutely. Now the type is not simply animal, but is throughout a blending of spirit with flesh, of an ethical with a sensuous being. On the hypothesis of blind evolution, ideal art would be superfluous and beauty a mere adaptation to environment on the earthly

level; 'the chance play of subjective sensibility or the far-off echo of ancestral lusts.' Do we not start back horror-stricken when the 'splendour of Truth,' the godlike of purity and compassion, are thus degraded?

I have contrasted Plato with Darwin, not undesignedly. Take this hint (we cannot dwell upon it now) from the Oxford translator of the Dialogues. Professor Jowett says, 'in the Phaedrus, as well as in the Symposium, there are two kinds of love, a lower and a higher, the one answering to the natural wants of the animal, the other rising above them, and contemplating with religious awe the forms of justice, temperance, holiness, yet finding them also "too dazzling bright for mortal eye," and shrinking from them in amazement.' To overcome the lower by the strength of the higher one was, in significant Greek phrase, 'an Olympic victory,' But was it not trampling under foot Natural Selection? 'If the soul of man did serve only to give him being in this life,' says Hooker, 'then things appertaining unto this life would content him, as we see they do other creatures.' But they do not. A new and unexampled range of motives, hidden from the entire animal kingdom, opens upon us above these horizons; we begin to comprehend 'the marriage of true minds,' with offspring not born of the will of flesh; a divine friendship which supersedes and may render needless that earthly love. 'The wisdom which understands this,' said Diotima, the wonderful teacher, to Socrates, 'is spiritual, all other is mean and vulgar." Again it is said, 'The creations of the soul are fairer far than mortal children'; and how enlightening is such a flash from the pure ether of Platonism! These wings were never grown by

Darwin. If the mechanical philosopher object that we are talking poetry, should we not answer by 'drawing towards and contemplating the vast sea of Beauty,' as Diotima bids us? 'Beauty, absolute, simple, separate, everlasting,' is with man a thought and a desire. He yearns after the 'single science, which is the science of Beauty everywhere.' And, with such an immortal possession, would not the generations of things mortal cease?

At all events, it is not possible to deduce from the causes and conditions of a struggle for food, shelter, and successful earthly offspring, faculties which transcending this, and in no way concerned about it, look to absolute Truth, Beauty, and Goodness, as their proper objects. But such is man, at home among ideal forms, so enamoured of them that he conceives a shame of the body and is silent, or speaks with reluctance and distress, of the generation that is not spiritual. The spirit condemns the flesh, or condones its grossness for the sake of an imparted beauty—in other words, of the elements of order and proportions it shows forth, and thus of an embodied idea.

Shame is a mystical feeling like Platonic love, denoting the presence of soul; quite unintelligible to Natural Selection, which degrades it in attempting to explain it. No animal is modest or ashamed except man. And nothing but the philosophy of Diotima, distinguishing between passion and heavenly desire, can tell us why the difference should be. Evolution has reached its visible term when the human organism appears. But man is only beginning. By the degree of shame which he is capable of feeling we may measure his excellence. For, as Ruskin, altogether a disciple here of the Socratic wisdom, bids us observe, 'It is

not the reasoning power, which of itself is noble, but the reasoning power occupied with its proper objects. . . . If we reason only respecting words, or lines, or any trifling and finite things, the reason becomes a contemptible faculty ; but reason employed on holy and infinite things becomes herself holy and infinite.' This, he decides, is 'the work of the entire immortal creature.' St. Thomas Aquinas, from a similar reflection, concludes to man's life hereafter in a timeless world.

These, then, our faculties of transcendent scope, are not accidental variations on which selection does what it must, to fit man for his place among the brute creation. Looking upon him in the whirlwind and tempest of his battle for life with elements, with beasts of prey, with his own sicknesses and sorrows, it is surely the crown of his martyrdom that he knows infinitely more than he can do. See him a godlike essence prisoned in the body, as Plato and all the noble antique philosophers believed, a god and a worm, full of the highest thoughts and of all uncleanness, the wonder, the pity, the scorn, of his very self, a text for laments that never have been silent since Job cursed his day. Does he not stand forlorn, like a son disinherited, cast out from the garden of Zeus into wild wastes and upon trackless sands, bearing in his heart some gnawing memory of the love he has lost, the Truth he glimpses in dreams,—and O, how ill-adapted is he to the lower life which yet he is doomed to lead ?

Shall we talk of Natural Selection when we consider who they are that have shed lustre on mankind, and how their fellows have evil entreated them ? Not rather, of a Fall from the high estate which humanity

still claims, and like Esau would recover it with passionate vain regrets? What a tragedy is this, made by the sense of our forfeited greatness, kept moving through scene after scene by agonies of remorse, sudden rendings of the veil that hides immortal beauty, heroisms in which natures deemed ignoble have splendidly asserted their manhood; while again, cruelty, greed, cunning, lust, doing violence to the helpless, bring out of his den the beast that lurks in every one of us!

And if it be replied that man has come up, dragging after him, nay within him, all the organic world, its appetites and furies, wrought into blood, bone, and nerve, where shall we seek for an origin among these instincts of the exquisite refinements of virtue; or how discern in self-interest bounded by the species, any source from which a compassion wide as the universe could spring? One fact is certain: if such transformation be possible, its cause will not exist in the world of matter, and physical accidents must be left out of sight. Either, from the beginning, powers of reason and ethical law were latent in the seemingly sensitive nature, or else at a given moment they were added to it from without, I mean by the Supreme Will reigning over evolution. Sense in its own might never could transgress the limits of the sensible, to become a pure intellectual faculty such as we know for our unique prerogative, our glory and our shame.

I am not saying, be it observed, that granting the existence of pure intellect in our human first parents, the principles of Natural Selection will be ineffective as regards its development. Neither do I contend that its powers in the millions who share it are equal

or uniform,—how could I with so many facts testifying to the contrary? But, when the utmost degrees of variations have been admitted, from the merest 'glimmer of intelligence' in an Australian Blackfellow or a Fuegian savage up to the organising and speculative minds of a Cæsar, a Leibnitz, a Kant, or a Napoleon, some common denominator is left applicable to the whole class of humanity, but below it is never found. And this common denominator is not simply biological; it is also metaphysical, as is shown by its already containing the ideas of being and not being, with endless affirmations, denials, resolves, and dispositions which depend on them.

'Regarded from the biological point of view,' says a recent representative volume, 'the function of all mental process and mental structure is to preserve and promote the life of the race and that of the individual in so far as he subserves the life of the race.' Now, on the Darwinian showing, that is the whole purpose of every individual, whom Selection uses or destroys according as he is adapted to it or is a misfit and therefore a reprobate from the undesigned design to which all organisms must conform. If the individual owns any faculties not subservient to this end, he can only exist by rising above evolution into a world neither physical nor organic. There is no room in mindless evolution for an immortal spirit. Is there room in another universe ascending beyond it like the ether beyond the earth? Remark how the question of man's actual nature is the question of the life to come?

In the same volume just quoted I read 'The continuity of mental evolution of man from lower forms has in the main been accepted, though a few

authoritative voices still protest against this acceptance.' These few voices include the greatest philosophers of the past, who though dead yet speak; the Churches of Christendom which know, at any rate, how such a doctrine as man's essential bestiality affects the religious conscience; and the voice of the people whose instinctive passions, strong as they are, cannot quench the conviction that human nature ought to live up to a moral code from which mere animals have ever been and ever will be exempt. Biologists who fancy that, by interpolating countless degrees between the mental powers of once existing apes and the intellect of Aristotle, they can span this gulf, ought to show how it is to be done. So far as I know, the late Professor Romanes was the only Darwinian that undertook to do it by an analysis of the brute faculties which were to be developed. His failure, of which you may study the detail in St. G. Mivart's reply to him, is a lesson. Any biologist may be challenged to strengthen, if he can, the arguments overthrown by Mivart's conclusive refutation of Romanes. It will be found that they repeat for the origin of mind the *a priori* suggestions and vague possibilities drawn from the unknown by which mechanical philosophers have done their best, but in vain, to assimilate and reduce life to 'energy.'

On paper the most unreal propositions may be dressed up with a show of argument and spread over leagues of sophistical eloquence. But life makes short work of them. A biologist who should act on the essential sameness of man and beast for one single day would convince himself, and probably be taught by others, that the difference is infinite in moral value, that is to say, in the absolute nature of things. The

mere brute is controlled by circumstances and impulses; if man does not exercise self-control he becomes a criminal or a lunatic. We train dogs and horses; they never train themselves. We exchange ideas; but animals have no ideas to exchange. We choose our line of conduct on strictly ethical motives; but as such motives have in them a universal rule and a categorical imperative, the brute is unable to conceive and therefore to obey them. Need I pursue the catalogue of distinctions farther?

That in the cries and emotional behaviour, even of the 'higher mammals,' neither reason nor reasoning can be discerned; that the use men make of their hands and their eyes is not simply brutish, but for rational purposes; that Prometheus in stealing fire from Heaven meant it to be an instrument of mind, whereas nothing save man 'uses' fire at all; that signs and gestures and language in us convey to our fellows assurance of our knowing spiritual and philosophic truth, undreamt of in the sensitive realm to which Darwinians would thrust us down; that we perceive where animals do but feel; that a child never was at any stage of its existence anything but human; that therefore it is not first a kind of nondescript ape which slowly grows into humanity and which is wanting in consciousness of itself until it has attained reflection—these are vast masses of fact which the *a priori* Monist will find it necessary to clear away by arguments a little more solid than conjectures about lost tribes and missing links—if only because the problem is not one of physical gradation but of metaphysical analysis.

We have demonstrated that between living and not-living there is a break in continuity. It is equally

certain that, whenever feeling began, a second break even in the organic world must have occurred. It is the most assured of all certitudes that mind cannot be explained by matter, and consequently did not originate from mechanical causes. Our philosophy, at least, is coherent ; neither does it put us to permanent intellectual confusion. It denies nothing to sense and matter that sense and matter claim in their own province. It recognises the harmony of nature —a perfection in things far more attractive than the dead identity brought down to the lowest terms with which our Darwinians appear to be infatuated. It does homage to reason by insisting on causes adequate to their effects ; whereas, at every vital step in evolution, the blind matter to which Natural Selection is ascribed violates that law, producing the more out of the less and from a zero-level raising up activities of which no trace was before visible. Thus dogmatic Naturalism asserts a creation without a creator.

Let me state the conclusion with a late Scots professor, already quoted, whose work gives evidence of his expert knowledge and philosophic competence —the well-known Henry Calderwood. He says, ' the inability of biology to present a science of human life is reached by exhaustion of all that biology has to offer by way of explanation.' Furthermore, ' In the individual there is body and mind ; two distinct lives, yet one life. The two lives, are, nevertheless, so distinct that we, as reflective beings, have no difficulty in contemplating the body as non-essential to the mind. This supplies the first key to the world-wide belief in a future state. Moral conditions supply a second,' he continues a little further on : ' there are two sides of the nature, certainly, but they are not

two forms of life, each with its own distinct centre of activity—brain, the centre of all organic action; intellect the centre of all rational effort. The brain cannot do what mind does; mind cannot do what the brain does. Such duality is an altogether new thing.'

LETTER XIV

THE SOUL IS 'FORMA CORPORIS'—REAL SCIENCE AFFIRMS ABSOLUTE TRUTH AND THE LAWS OF CONSCIENCE

MY DEAR FRIEND,—Organic evolution, I said, reaches its visible term in the human body ; which moderns call man's 'form,' in confusing opposition to Aristotle's language taken over by our Schools. To zoologists like Professor Driesch the true *forma corporis* would be an inward directing or 'formative' principle, the entelechy, which without dimensions in space, and not by mechanical forces, though using them, constructs the organism. In Kingsley's apt phrase, 'The soul makes the body as a marine animal makes its shell.' If we define cause not in the old and general sense as 'that which brings into existence something not itself,' but with mechanicians as 'a change in space which univocally determines another change in space' (Driesch again), then neither the soul nor God is a cause. I am unable to accept this peculiar terminology and shall adhere to what has long been the usage of philosophers at large.

Considered then as a principle which by means of physico-chemical elements builds up the human body from its material coefficients, I will term the human soul a cause, secondary, indeed, but real and enduring, of life to the organism. This manifold of parts and

activities is made one and is kept one by an indwelling higher power, itself a unity with intensive richness of faculty and function. The soul is an agent, individual from the first, but capable of realising itself more and more by experience, reflection, will. We thus find ourselves in a 'category' which lies far above mechanism, which dominates feeling, directs the senses, and supersedes instinct by conscious purpose; not, however, wasting its peculiar forces, so to speak, on those operations which can be prosecuted without attention—the mere vital processes—but, as we saw, enabling us to maintain our position in the world of Nature and to move on an upward path leading beyond it. Whether such individual beings, once existing, are permanent is the question of immortality. I quite understand that to Driesch entelechy, though real, is not individual.

'It must appear very strange,' says Driesch, 'that life is only known to us in immediate relation with very complex chemical compounds of a few classes.' From those compounds, which are really due to it, entelechy or the life-principle cannot have originated. (Let me point out, in passing, that the problem here resolved by Driesch against 'Naturalism' runs parallel to the problem of necessary *a priori* truths, which cannot depend on the experience they alone make possible or intelligible to us. You will find this collocation worth bearing in mind.) Science, then, knows no more about life than its partnership with 'Carbon and Company' which after a given time is dissolved. Carbon and Company break up into their several atoms; what becomes of life, the presiding and directing head of the firm? Science does not know. Its manifestations (or dividends) have come

to an end. Has itself come to an end? It never was the sum of the Company's operations, but their cause. What then? Can its effects have worn it out? Will it manifest the same powers again, or has it betrayed the existence of faculties not in their nature bound up with Carbon and Company? We say that it has, and on this assertion we proceed to argue from the soul's structure to the soul's destiny.

A more fundamental enquiry even than this of the individual persisting after death—one, indeed, on which the answer to it must turn—opens in our sight. Evolution cannot be mindless; that is our contention from first to last. Accordingly, Mind was prior as a cause (in the received sense noted above) to every possible stage of matter, energy, and finite intellect. Even though we granted to Spencer an everlasting 'persistence of force under its forms of matter and motion,' still an Eternal Mind to direct and control it would be necessary, 'without limit in space, and without beginning or end in time.' No theory ever formed is more congenial to our reason; none has exercised a less questionable sovereignty over human thoughts and civilised effort. Assume it, and we feel at home in the universe; deny it, and we fall into despair. Shall we say that we know nothing at all about these problems; that they are insoluble? It will be found, as Pascal understood, that into the vacuum thus created materialism will rush with tornado violence. But why go so far back as Pascal? Spencer, whose unknown God was neither Mind nor Matter, confesses in the sentence I quoted long ago, that 'there must continue to arise afresh the great questions concerning ourselves and surrounding things, and that, if not positive answers, then modes of conscious-

ness standing in place of positive answers, must ever remain.'

Hitherto, we have been engaged in showing that the 'mode of consciousness' now prevalent among great numbers of scientific men and deeply colouring literature, while to no small extent disintegrating society—the mode termed mechanism or naturalism—does not satisfy the demands which we make upon it, as rational and moral beings. This denial implies no rebuke of science, which we too cultivate with enthusiasm in the degree that our feeble powers will permit. For naturalism is something other than science. And its inadequacy to the answers we require has been made manifest. 'Wise men,' said Huxley, whom the popular voice hailed as if its sworn defender, 'will probably agree to a verdict of "not proven" in respect of naturalistic theology, taking refuge in that agnostic confession,' and so forth. But how can men, wise or unwise, take refuge in ignorance when positive answers to the riddles put by the Sphinx of life are demanded under penalties? 'Modes of consciousness' equivalent to such answers 'must ever remain.'

To be neutral where truth and virtue are concerned is not in our power; 'il faut parier,' said Pascal. Life is a choice. And not only, as a late school of well-meaning evasion would tell us, a practical choice, but speculative or metaphysical, and that in the highest degree. We cannot simply act as if Truth laid obligations on us and the moral law were called imperative. Their sanctions must be more than hypothetical. Ask a man of science to falsify an experiment for the public good; the lightning of ethical scorn will flash from his eyes. What, act a lie? Not though the world should go to ruin! Is this an

agnostic? Surely the fierce old Tertullian would say of him as of an earlier instance, 'O anima naturaliter Christiana!' Agnostic on the duty of truth for truth's sake? Not he! Not Huxley, or Darwin, or the great self-contradictors who worship as the Supreme Reality this law, which by no device can be construed in forms of matter and motion; which binds all intellects under the sun, wherever mind is. The First Cause, then, is Truth. Consider it.

But the First Cause is likewise the living law of Conscience. Truth commands us to worship and obey it, not on a ground of expediency, nor for fruits of knowledge; and the penalty of transgression is in the wrong-doing itself. The lie which a man acts or speaks cleaves to his very being. It unmakes him in the Moral Order; he ceases, in the degree of his falsehood, to be human; he tends thereby to untune the harmony of the world. Thus then Truth is sacred and inviolable, which is what we mean by the word Holiness. When the student in his laboratory refuses to assert the thing that is not, he stands for that law of Holiness, even as the martyr whom persecution by the hangman's hands rent in pieces, on his resistance to a creed that he deemed untrue. Science is therefore 'stuff of the conscience,' though it should not serve its votary in any stead for vital use. So much we know if we know aught. In the grand language of Hooker, 'The rule of voluntary agents on earth is the sentence that Reason giveth concerning the goodness of those things which they are to do.' Now Truth is the goodness of science and alone makes it to be. Truth is therefore its law, and Holiness is the same Truth commanding obedience to its universal sovereignty.

Weigh the alternatives lying before us in the balance of reason. Into one scale let there be thrown the universe of blind atoms blindly shaken together. Into the opposite cast a single act of duty done in a moment. That moral choice will outweigh that physical universe, when our standard is reason ; yes, infinitely ; for between these two no comparison may be. What, then, is the heart of things ? It is surely the real and effective law of their value. To conscience the world of motion has in itself no value ; once more adapting Descartes' aphorism, let us affirm that we can think away atoms, ether, and their mixtures, we cannot think away conscience. The praise of Kant is in all the schools because he said, ' Two things overpower me, the starry Heavens above, the Moral Law within.' But take note, my friend, of this. To Kant's apprehension the starry Heavens were a *seeming*, phenomenal and symbolic, created as they shone forth by the mind's own forms of space and time ; whereas the Moral Law, transcending phenomena, was absolutely real, the thing in itself, not resting in space or moving with time, but for ever supreme. Kant might have said like the ancient seer, ' All the host of Heaven shall be dissolved, and the Heavens shall be rolled together as a scroll ' ; yet the imperative of Duty would not expire ; its several grand mandates would remain wherever an intellect survived ; it would wait for future worlds to bind and uphold them.

BIBLIOTHECA BODLEIANA

LETTER XV

BREAK IN CORRESPONDENCE—ARGUMENT DRIVEN HOME—DENIAL OF IMMORTALITY IS ATHEISM —WITNESS OF HEBREWS, GREEKS, EASTERNS.

My dear Friend,—We had come thus far in our correspondence when the warning was given me which sent me off in quest of health to that German resort near Homburg, once a gambling den, now a hospital under waving woods laid out as an English landscape-garden, with its walks and shrubberies and terraced Kursaal, where the band discourses Wagner and Grieg on sunny afternoons. It is a curious entertainment to watch five thousand people day after day, all bent on testing the virtue of these carbonic springs. As in a box at the opera one sits and looks on while the scenes change, the actors flit in and out, the old folks talk of their symptoms, the young play tennis and make love. Where, I say to myself, are the gamblers now that crowded round the green tables up there in Thackeray's time? Certainly vanished into the unseen. And where will the invalids be when their last 'cure' is done and over? Equally invisible, gone beyond the senses and experience of those that survive them. But where? To speak German, 'It is the question man asks.' And no creature asks it on this wide earth save man. The old Sheikh in Edom asked it sadly, as if despairing of an answer, 'Man dieth, and is cut

off ; yea, man giveth up the ghost, and where is he ? '

Now I do not care whether a reply be made to this supreme of questions by instinct or by argument, by faith or by revelation,—to defend the manner of it troubles me not at all—but I say it must be answered. To leave it uncertain is impossible. No one ever does, in fact, so leave it. Either we take the view that Death ends all ; that those gamblers *are* precisely nowhere ; and that the invalids will in a little while be nothing, only the chemical elements persisting which, as we saw, did not and could not account for them ; or we boldly declare that they *live*, still *live*, in worlds to us not realised yet real, in the transcendent ether which Faith calls eternity.

Why must we decide ? Simply because we are bound to act. Action, my friend, is the most peremptory dogma we can affirm. It throws down the stakes on the table, and wins or loses by its own resolve Talk is free and, except when regarded as an action, commits us no more than we please. But if you act, you are mortgaged. He that orders his life in view of that Hereafter builds up one type of character ; he that believes only in time creates another quite unlike it. To get these types distinct and clear we measure them on the large scale of nations, or in men of genius. All turns at last on a judgment of value, ' Is life worth living ? '

It will be found by what may seem a paradox, that in ages when Heaven lies about mankind as a sure and certain prospect, the value of this present world is enhanced, heroism flourishes, the human pulse beats high, and a splendid hope gives to poetry, to the arts, to adventure, an energy not their own. But in ages of

unfaith, when this very life is all in all, the fire burns low, the hero becomes a valetudinarian, pain is avoided as the worst of bad things, and suicide from weariness or cowardice too often closes the scene. Our own distracted time has much the air of a negative and therefore an anaemic century. To doubt whether we shall be anything but dust and ashes in ten, twenty, fifty years is all one with deciding against the immortal soul. Upon that doubt follows a secret hopelessness, and then the aching void of our best faculties, after which our poet is but the 'idle singer of an empty day,' and the horizon shuts down. Life is now bankrupt, although various devices may put off the hour of reckoning. But it is doomed to arrive ; for nations as for individuals there is a Job's tragedy in which all the motives of noble existence have died away.

'Death is an everlasting sleep.' That article of atheism was proclaimed in all French cemeteries during the Terror,—itself more desolating than the guillotine under whose shadow a Christian priest could exhort his penitent whom the world had forsaken, 'Son of St. Louis, ascend to Heaven!' Logically, to deny the soul's Hereafter may not abolish belief in God ; but historically and in fact for the Western races, perhaps for all races, it is atheism. That will inevitably follow when the grave is held to be man's home for ever. We must look the situation in the face. Should the generation now growing up be taught that we can know nothing of the life to come, it will by a sure instinct conclude that there is no God. French logic, advancing *au pas de charge*, here strikes compromise down with fatal effect. Despair of man whom the Power that made him dooms to extinction is, once for all, not to be reconciled with worship of a Will

so ruthless, wasteful, deluding, and, let us say it boldly, so stupid. For who would then be the Father of Lies? Who but he that planted in us the wish to believe in immortal virtue? We come, upon this frowning path of blasphemy, skirting abysses, to the centre which is Reason—reason in the highest human sense, and always therefore, I say, divine. That man should perish everlastingly, being endowed with such capacities, hopes, sorrows, aspirations, yearnings of heart and ideas of the intellect, unless by his deliberate choice of evil, no justice will grant. If he were not what he is, in apprehension like a god, his destiny might be to lie down without waking among the clods of the valley. But can we conceive of the Reason which, to all but sceptics and materialists, dwells at the heart of existence, that it would annihilate this living soul, rich in virtue, capable of endless progress, loving truth and seeking the good? I cannot.

To venture on the enquiry why man was made will seem in the eyes of not a few religious persons presumptuous; and a crowd of teachers deservedly esteemed as experts in special sciences will condemn it as unscientific; for 'what can we know of final causes?' I would say, in a pregnant sentence from Ruskin, who is here as medieval as St. Thomas, 'Wisdom can only be demonstrated in its ends, and goodness only perceived in its motives.' Where we note adaptation, it is impossible (even after Darwin) to overlook a system of means and ends, or as Butler terms it, a scheme, in which one thing is subordinated to another; and this, if successful, demonstrates wisdom, if beneficent, goodness, at home in the world.

Now to that real conception of things which goes deeper than logic,—in the light which kindles behind

the light of reason dispersed or refracted into syllogisms—immortality without God is a dream, and God without immortality a contradiction. Here I desire to lay weight on the second half of this vital chain, by which we mount to Heaven. Call to mind the argument, so strongly urged by unbelievers, against an all-designing Providence from what appears to be the waste of the world. It may be so fiercely illuminated as to daunt the imagination and sicken our hearts, while convinced that it is false in spite of its ten million instances—or million million, for who shall count them, once we begin to exercise our wit upon the reverse side of evolution? How many are the seeming accidents, misfits, perversities, plagues, and overflowing Pandora's box of evils, which, as they fall out, we cannot deny, whatever be their explanation?

But the waste of seeds, lives, loves, energies, attaching to the universe below man, or to man himself as one among animals, what is it compared with the waste of intellectual being, if either he is not a soul distinct from the organism, or, if though indeed a soul, that soul is doomed to die? Reckon up his myriad faculties; think what he has done, though with obstruction upon every hand; go through the gallery of his heroes and their achievements; rise on the wings of that hope which he obstinately cherishes; then see all this turn to nothingness and sheer oblivion. Man, the miracle of Nature, was and is not. Of him not a memory is to be left, and his divine sorrow shall have been in vain. Why then should he ever have breathed? No answer comes; none is utterable which bears in it a meaning. If chance had made and unmade him, such would be the insane conclusion. Is that infinite waste reconcilable with infinite wisdom? Or are we

but flies, sport for the high gods, the cruel gods, enjoying their gladiators' show of tortured generations? *Morituri te salutant!* No, for a Cæsar throned above the inhuman waste, worship and salutation would not be the due recognisance, but something far different which, thanks to our Father who is in Heaven, we need not dwell upon.

Take, then, the argument; turn it round and draw the consequence. There is no squandering of resources, if Reason be, as we hold, the innermost power in things; but while even to man's bounded view it matters little how we resolve the question of waste in star-dust or vital germs that never were conscious, it is quite another problem the moment we come in sight of that which has intrinsic value. Or has nothing at all such value? Not reason, love, duty, righteousness? To this absolute Nirvana must unbelief plunge down, rather than grant what would be the sequel of confessing in man some element, positive by nature, always good and admirable, always therefore adapted to existence, never affording a motive why it should cease to exist? Once more, I say, turn the argument. If there be a righteous, all-disposing Ruler, as He is the Value of values, their origin and standard, it is He that has made known to us the 'infinite nature of Duty'; and unless righteous, He would not be the law which is justified in itself; He would be unreason. We might fawn upon the Thunderer; to revere Him would never be possible. Man's mortality spells atheism.

I am brought in this way, perhaps unexpected, to my innermost never-changing conviction, and it is this. I cannot make it a question whether life has any value, or the course of things an intelligible sense. Many

write as if it were to them a note of interrogation ; to me it is, it ever has been, far otherwise. And the value of values, let me say it in a word, is Justice. I conceive of Reason as being Justice in its universal aspect, that which is right to be thought and right to be done. All the magnificent hymns in which we praise God, what are they but Psalms of which the keynote is Justice ? Their fine rhythms are borrowed from that harmony between ends ideally foreseen, and means and instruments wisely adapted, whereby science breaks out into music. This creed gives the sure premise to my conclusions, whatever they may be, touching the rights, duties, hopes, beatitudes, of these my fellows, who suffer, strive, and die. Justice with seeing eyes, and mighty hands, and tender heart, as contemplating its own works and guiding them onwards. Therefore, not merely legal, but instinct with kindness ; for if it has made things frail they deserve its pity. ' Thou hatest nothing Thou hast made,' says the touching sentence in Scripture which calls on ' the Lover of Life,' *amator animarum*. Or shall we take to ourselves the profoundly simple word in Plato, ' The Good is not envious ' ? If I construe Nature in the light of a universal Reason, I must not pause until Reason has put all things into the place where they ought to be. And that is Justice.

Often, as a child, brought up among enthusiastic reformers, temperance advocates, haters of negro slavery, root-and-branch politicians to whom interests were not defensible except they embodied rights justly acquired, I used eagerly to discuss the claim we had upon our Maker, in hot protest wherever Calvin's shadow darkened the light. How I then shaped my stammering speech I cannot be sure ; but I know well

what I believed. There was plenty of suffering on all sides ; and at home much trouble, very hard upon children whose annealing in the furnace had only begun. But I thought and said that somewhere, at last, in a world which one day should be, every man was to get the life he had freely chosen, that and no other, good if he had loved the good, and evil if he had preferred evil. I saw in God's day the whole scheme of creation perfectly ordered in Freedom. For without freedom it was idle to talk of Justice. My soul rebelled, my reason sprang up armed, against the tyranny supposed in Heaven by those who made Omnipotence an apology for unequal handling of mankind, without regard to merits or opportunities. I could bear the thought of any pain that was inflicted by way of discipline, or as the consequence of wrong-doing wilfully indulged. But never did it seem to me that the Judge of all the earth might, because He was strong, torment the weak who could not help themselves. Here, you will cry out, is Prometheus again. In those days I had not heard of Prometheus ; it was my soul asserting the Law of Right paramount over all. And should I try to prove it ? How can I prove that which every ethical appeal supposes ? I can apply and trust in it. But the Law is its own proof ; and its presence in my heart a pledge beyond the oath of gods.

' A fairy tale,' says the ironical disputant, ' but our wishes are not demonstrations.' And he turns away, deceived by his epigram. I do not argue from my wishes. What avails with me is the constraining force of a moral instinct, rooted in my nature, common to me with millions, or should I not more truly declare it always present wherever men fight for their rights ?

That struggle, aye-beginning, never ending, is an act of faith in the power outside us as one that loves justice and hates iniquity. It has breathed life into all heroisms and multiplied the noble army of martyrs, without whom history had been indeed a scandalous chronicle. I argue from the fact of a belief congenial to my mind and yours, and who is there not sometimes touched by its ray? It satisfies reason, while no alternative can for an instant plead its right to be accepted. Why is Calvin 'a ghost gone shrieking down the wind'? Why has he begotten the agnostic and atheist progeny that fled out of all churches? Why, except that, like the modern science so curiously his counterfeit, the Patriarch of Geneva worshipped an Omnipotence whose absolute Will took no account of Righteousness? A God so conceived was impossible. Where did these Puritan children who judged their fathers get this assurance, breaking in pieces the walls of their theological prison and razing it to the ground as if a Bastille? The agnostic refuses to affirm because he discovers so little justice in the course of Nature. The atheist, indignant at the martyrdom of man, cries out 'No God.' Both testify that Reason demands at the very heart of existence a living principle of equity. If there be a God, Holy and Just is His Name.

I therefore, seeing that martyrdom willingly endured, and the just man ready to suffer any injustice sooner than inflict it, bear this witness to the correspondence between my instinct and the most significant facts of life, which Bishop Butler would take to be a clue into reality. For the one explains what the other confirms. It is the argument of Socrates and—let me say it with bowed head—of the Lord Jesus Himself.

How can we overlook it? Greek wisdom in the person of Socrates dies a martyr to truth and rises again immortal, the light of human minds. Hebrew righteousness mounts the cross with Christ; its resurrection is Christianity. Am I not going down to the bedrock of experience when I construe it by the categories of Socrates and Jesus? 'What is man?' science asks. I reply, 'Man is what Socrates was when he drank the hemlock cheerfully; man is of the kindred of Jesus who taught the secret of religion by dying for it.' Here is no 'fictitious and theatrical world' to provoke the scorn of Bacon with its idols; if ever in relation to humanity we could talk of induction, surely Athens and Jerusalem at the crisis which made them the mother-cities of civilised peoples will yield the instances we need—crucial instances, not to be overthrown.

From these Alpine heights such a torrent of thought rushes down that I know not how to guide it along our channels of mere prose. For example, I seem aware of a proud yet not altogether evil impatience springing from a wounded heart in the very agnostic who, with Huxley or the amiable Leslie Stephen, will not have God in his knowledge. And why not? Because—*sic fatur lacrymans*, he answers with tears—if a God there were He must be the fountain of pity, and in the cosmic process pity was never felt. Then I take him at his word; there exists a necessary idea of God in our minds to which moral attributes are the breath of life. For it is no mere piece of reasoning, but a haunting presence, not to be put by, and every age beholds its powers in these righteous spirits continually born who dare the utmost that malice can inflict and by dying overcome. What

is their act of confidence? Is it not a transfiguration to heroism of the agnostic's despair? The noble discontent with things as they are, that too was planted in our being by the cosmic process. But whereas creation unrolls itself as a process, we feel compelled to enquire whither it is moving, what can be its drift? And upon this weltering sea the dawn rises with our ideal. Is it not a sign, like a hand from the clouds, pointing to the hidden sun? The idea of God, struggling amid prehistoric darkness towards the light, ever growing grander, purer, less human in its weakness, more human in all kindness, but inexorable to the transgressor who will not flee to it for refuge—may we cast it out from evolution and yet comprehend how man was developed as man?

For what is evolution apart from it? A rain of electrons into the void? An eternal coming and going that does not signify? How then did this idea of reason emerge from blind chaos? Strike it out of our thoughts, and not religion only, but all we cherish in man's achievements, turns to mockery. If we figure the degrees of existence by orbits in the heavens, this Divine Idea will encircle all others and be their *Primum Mobile*, their motive and account. We catch, while I speak, an echo of the rolling harmonies in Dante's 'Paradise,' nay, and of those terrible chords in the deep:

> Giustizia mosse il mio alto fattore;
> Fecemi la divina potestate,
> La somma sapienza, e il primo amore.

For I do not fall into the sentimental vein and talk of 'benevolence,' that imbecile 'bon Dieu' invented amid its cups by the eighteenth-century Deism. How the Middle Ages, in their poet stern and tender, lift

their crests above these poisonous marshes ; how the Catholic towers up over the Voltairian, and is infinitely more compassionate than the Rousseaus, the Robespierres, by reason of his sternness, instinct with belief in man's highest faculties ! Dante pierced into the pure white when he bound up wisdom with power, and love with justice. In these mighty lines we read the sum of true theology. And is it not inspiring ? What could ambition ask more than to aim at such perfection under penalties so immense ? It is a range of glorious powers not suspected by the dabbler in molecules, or his cousin the dilettante of sentiment to whom effort is intolerable and holiness a fiction. I prefer a manlier strain, like that which we may hear in Æschylus, Isaiah, and the heart of the people, whose revolutions declare that misery is nothing compared with injustice. Æschylus and Dante are of one mind in this.

But there is Redemption too. I am not in the least forgetting our Christian, our New Testament antinomy, where justice and peace have kissed. The great scheme stands ' four square to all the winds that blow.' Will you dare, haughty sceptic, to despise it ? Or you, murmuring agnostic, to scorn it as impossible ? Or you, again, purblind materialist, to fumble for something better among your retorts and crucibles ? Who has the larger view ? Methinks, from altitudes where saints have trodden age after age, your little huts in the valley of doubt become invisible.

A living Law of Retribution is, I take it, the axiom of equivalence which in every branch of knowledge governs energy, viz. that ' Nothing is lost,' or ' Causes have their effects,' or ' Action and reaction are equal.' When we find in ourselves a nature determined by the

Imperative of Right, our premisses must be shaped accordingly, for this, in Biblical words, is the whole of man. Now, a law in the abstract can neither act nor execute itself. Such law is merely the summed-up statement of what we know to be done by physical forces or metaphysical agents—in plain terms, by Will. And a will without personality no one has ever conceived. It follows that the law of conservation applied to ethics turns out to be the disclosure of relations between persons, the Divine and the human, as shadowed forth in conscience, taught in sacred books, thrown by worship into dramatic form.

I might quote familiar texts in illustration from Psalms and Prophets ; but conscience was not the heritage of Israel only. In this light there is neither Jew nor Greek ; it shines on all. Hearken to the following, and tell me whether it was uttered by David or Æschylus : ' He calleth to His aid no weapons of men ; every Divine event comes to pass without trouble. Seated on the throne of Holiness He worketh His will, not stirring from His place in heaven.' And whence that other saying : ' He, now inclining the scales this way or that, awards as reason decrees, to the evil the meed of their injustice, and to the law-abiding holy things.' Yet again, is it Zeus, Jahweh, or Allah whom the suppliant oppressed calls upon as ' King of Kings, blessed among the blessed, Power most perfect in authority,' who ' by law from of old directs our way through life ' ? We answer, it is the Supreme, many-named, but in such choral odes recognised for that which He has ever been, avenger of wrong, casting down sinners from their lofty citadels, coming to the help of the helpless. When the poet of the ' Supplices ' taught these lines—four

hundred and seventy years before Christ—on the Athenian stage, where the Acropolis looks towards the wine-dark sea—nearly the whole of our Hebrew Bible was extant, yet unknown to him. I cannot guess whether historical groupings and parallels produce on your mind the effect which they have always had on mine. But as I read in the volumes held sacred by Israelites, Ionians, Mohammedans, Hindus, a doctrine which condemns the very men who believe it, and often times the gods in whom they believe, I am struck dumb with astonishment. We talk of going by evidence, we call facts stubborn. What evidence, what facts, can equal these ?

Without postulates, no philosophy. Without philosophy, formal or concrete, no life-plan. But our judgment calls every one ' fool ' that runs through his years at random. Therefore, postulates we must lay down, and we have them, all of us. Mine is the axiom, ' As I do, so shall it be done to me.' A formidable word, yet comforting, since it sets me in a kingdom of moral causes where I am not alone, nor the sport of eyeless storm-gods playing at blindman's buff. It is the Highest Law and perfect Order. It is Art, not chance, and I can feel at home amid the clash of worlds. But is it more than a supposition, you ask. Yes, I see it to be more, and hence its name of postulate. For in Euclid a postulate was not a bare position or supposition. It was, first, a working hypothesis, or something to go upon in practice ; and, secondly, indispensable if the geometrician was ever to act. Its proof, indirect but sufficient, was the reduction to unreason of any other alternative. Unless lines and figures can be drawn there are no laws of their relations. But how convince me that they can

be drawn? By drawing them, if only in approximation; for still it is enough when we know that our failure is due, not to the impossibility of the thing, but to our instruments. Change the subject from physical lines and angles to moral rectitude, from the laws of the circle to the laws of conduct, and every syllable holds good in ethics as it held good in mathematics. Postulates seen to be necessary, axioms evident as soon as the terms are understood, enable us to deal in both cases with problems that clamour for solution. And the reduction of adverse doctrines to the absurd is no less demonstrable. If Justice be not the governing power outside and above man, his motive for right action, to which he knows himself bound, disappears or is annihilated; he is at war with Nature, and Nature with him. Then it were well if the frightful Œdipus-secret of his orphanhood came not to be spoken in any treatise and he died ignorant of it. And are we such portents, fooled with dreams of a Judgment Day that shall never come?

On the other hand, if science absorbed in matter, attentive only to physical co-ordinations, desperately worships unreason when it turns its microscope on the soul, would not this methodical madness account for the sick heart and aching head which are common nowadays? Man has bought knowledge at the price of himself. Needlessly, for with a little courage in thinking high instead of meanly about the actual reason he was using to subdue things beneath him, he might have ascended to the sun intellectual, and viewed the universe as art, or poetry, wrought by the heavenly Artist. Then he would have put under his feet chance and blind fortune; and have truly known the cause after which he was groping.

LETTER XVI

HAS RELIGION HAD ITS DAY?—THE PROFESSOR OF SCIENCE CROSS-EXAMINED—HIS ANSWER, RESPECTFUL NESCIENCE, CANNOT GIVE RELIGION OR TAKE IT FROM US

My dear Friend,—'Science,' I hear it said by many voices, 'has killed religion; and all that remains for the clergy is to bury the corpse.' Nietzsche with wild gesture exclaims 'God is dead.' Those who would wrap their memories of a heavenly creed 'in the purple where the dead gods sleep,' talk of reconciliation with science, and they achieve it by dropping all that was distinctive out of their beliefs, keeping names from which the reality has vanished. All such cries and exhortations take for granted that science is equal to the task laid upon it of building up the human world from physical elements, precisely as it constructs with its formulas the inorganic compounds. It measures and it combines, and the desired result is there.

To this I answer as sharply as it strikes upon my ear, 'God cannot die while man lives.' The science which has been thus exalted gets quit of religion by eliminating from Humanity its characteristic qualities. What is it that lends to our race a glamour and an interest so entrancing? Is it the complexity of chemical notation by which science registers its secretions? You look up disgusted and bid me leave to Voltaire the

odious pleasantries of 'Candide.' With all my heart, if popular science would first take shame to itself for the outrage on reverence it is eternally committing when it reduces the martyr at the stake to his burning flesh. Martyrdom, like mother's love, saints' devotion, philosopher's thought, poet's ecstasy, can be to the mere chemist only that which his reagents discover, acids and alkalis dissolving or united. But we have seen that in the chain of mechanical energies the soul, the conscious Ego, has no place. Neither, we tell our compounder of oxygen with carbon and the rest, will he find it in his retort ; the formula that would include it lies beyond chemistry. Shall he therefore declare that soul is not ? Then poetry is not, nor love, nor argument, nor the acts of sense, seeing, hearing, touching ; for not one of these or their like can the laws of atomic equivalents ascertain. Science measures that which it observes. It has no power by which to observe the inward man, who is our true self, and he is incalculable by its methods because invisible to its view. The constantly changing chemical formula which might represent his organism must leave him out. And precisely in what is left out does the interest we attach to him consist. The body is a symbol, the countenance a veil, the eyes are lights kindled by a spirit within. 'You may bury me,' said Socrates in prison waiting for his death, 'if you can catch me.' That immortal jest sends physical science—the only science our day on principle and as a first cause admits—about its business. 'I have dissected the body and not found the soul,' cried a surgeon, who thereupon turned sceptic. Did he fancy the soul was a gland or a muscle ? He should have concluded, 'Therefore life is something else

than I foolishly dreamt ; it is to be sought by other methods than mine.' Of Lalande's parallel absurdity we have all been told, ' I swept the heavens with my telescope, but saw no God.' Is the vision of God for telescopes ? ' Beati mundo corde quoniam ipsi Deum videbunt.' Lalande on this side, Christ on that ; shall not these utter opposites, not to be resolved into one another, differing beyond any possible term of comparison, give rise to kinds of knowledge as unlike as their objects ?

To science, always in this narrow meaning, man, I repeat is, incalculable and God unknowable. About its own world, on the supposition of uniform law, it may prophesy the future. But into the laws of the spirit no means of prying are given it. The postulate of uniformity does not apply to man. Why not ? Because he is not in the chain of which all the links are material and alike. Hence he is free from their implications. And he is secret, therefore impenetrable, in his conscience. Motives fix the quality of actions ; but who can be sure of the reason why Cæsar chooses the right, or Mark Antony the left, except Cæsar and Mark Antony ? Hence Walpole said, ' Read anything to me, but not history, for that must be false.' No doubt, the actor who had also lived behind the scenes felt how unequal writing was to measure the depth or disentangle the complexity of human nature. Even more baffling to psychophysics—an ambitious name for experimenting with soul as if it were body—is the unique, the individual self-centred Ego whose privacy the observer would invade. Learn what a single atom of any given substance can do, you have learnt what every like atom is capable of doing. How different when you are

handling men ! Prevision, except in the gross and under conditions not themselves to be secured, is guess-work. Character makes the hero ; but the hero has often transformed his character, becoming the contrary of what he was. No shadow of a science yet attained or attainable, could enable us to draw the horoscope of a living child. Neither saint nor sinner has an assurance that for him to-morrow will resemble yesterday. If particles of matter suddenly developed the freedom to obey or disobey chemical formulas according to their good pleasure, chemistry would no longer be thought a science. Now in psychology this freedom is ever proving its existence by acts unforeseen and unexpected. To call it a science is to imply that, somehow, after all, the Ego has been reduced to a complex machinery of which we possess the registered weight and power. Nothing of the sort is true.

And now we perceive why the scientific methods, to which public opinion ascribes the only real certitude, are as degrading as dangerous when applied to Human Life. It is not prejudice but reason, alarmed at the consequences which it rightly deduces from this portentous sacrilege, that forbids a man to ' peep and botanise upon his mother's grave.' Reticence and reverence are duties unknown to physical research ; yet if we lose them Society rushes headlong down the steep with the swine of Gadara. To physiology chaste and unchaste are all one, mere insignificant details in the phenomena which it observes unashamed. You may hunt through Spencer's closely-printed volumes and never light upon a sentence which conveys the feeling of awe and holiness under whose inspiration countless men and women spend their

days. His cohesions, adaptations, integrations, omit by a necessity that determines their limit, nothing less than Humanity itself. 'Within its own range,' says a thoughtful critic of current views, 'the scientific explanation has no use for the conception either of ends or of values.' It is profoundly indifferent to all but its own interest, which is pure knowledge. But what would be the outcome, if mankind generally interpreted life as serving no end and destitute of value? The situation is unthinkable, for life at every stage affirms a value worth possessing and an end to be sought. These taken away, it expires.

There is a widespread notion that science has discovered how the universe began, how life sprang up, how man was made from pre-existing species; and that on these vital points it contradicts religion. But no superstition could be more unfounded. It is plain to all who know anything of physics, or physiology, or biology as practised in the unbelieving schools, that on the subject of origins not a single word has been uttered by science. The seven riddles of which Du Bois Reymond pronounced forty and more years ago that they would be for ever insoluble, have not advanced a step towards solution since those Berlin discourses which led back within his proper bounds the physicist who had leaped over them into metaphysics. For convenience' sake let the great notes of interrogation be recorded here. What *is* matter in itself, or force, if you prefer so to call it? How did movement in space begin? What was the origin of life? How account for the appearance of Design in Nature? How did sensation and consciousness originate? And how speech and thought? Finally, how explain, or explain away, man's persuasion that his will is free?

Now the calculus we term science leaves us before these questions of origin and the true nature of things as ignorant as Australian savages. Beginning, end, or value of the forces, which in some degree scientific men know how to control, for ever escapes them ; and with Du Bois Reymond we may be confident that it ever will. Their conclusions are simply negative. Modest practitioners tell us that they do not know ; philosophy instructs them why, on their own valid method, it is impossible they should know. For all the purposes of human conduct, as determined by moral aims, free choice, and permanent result, science might as well be what it was to the Hebrew of the Old Testament, a thing unborn. It answers none of the questions that signify. We will place it in the witness-box.

'Is it inconceivable,' we ask its professor, 'that life existed before its appearance on earth ?'

'I am not competent to reply,' will be his answer; 'my concern is with existences that have fallen under observation. I can put no limits to the possible forms of life.'

'Is life absolutely dependent on organism ?'

'All the living phenomena with which I am acquainted are known to me in and through such organism. Do you wish to learn more than this tells me, consult another ; my range of experience cannot go beyond phenomena.'

'Can you affirm, or deny, that realities may be given which transcend that range.'

'I can do neither ; my instruments will not establish a universal negative of this kind ; they fail to affirm that which they have not reached.'

'Does mechanism exclude teleology, or means designed to attain certain ends ?'

'Mechanism includes and requires the subordination of parts to a whole. How this came about the observation which certifies its existence cannot always tell. I perceive that human machinery is designed. For all I know the universe itself may be carried forward on an intelligent plan; but my concern is with its working, not its cause.'

'Have you any reason to suppose that feeling, consciousness, thought, and will, are molecular movements transformed?'

'None whatever; the passage from molecules to motives is unthinkable; and so of the rest. Movement is a closed circle, no part of which has in any experiment passed into mental or moral action.'

'How did men invent significant speech?'

'Observation has discovered no tribe of men without language; how they came by it I am unable to say. There are no instances of creatures not human acquiring it; and I grant that it is peculiar to mankind.'

'What is your view concerning free-will?'

'I know nothing about it as a physicist. All the phenomena which I make my study are external; and they may be produced by compulsion or free choice without altering this quality. Therefore I cannot discriminate between internal conditions which elude my tests and trials. My whole concern is with mechanical effects of mechanical causes. If there be others unlike these to me they remain hidden. My answer, then, to all your questions is neither Yea nor Nay, but a modest and respectful silence.'

Silence, not science! What is man in the laboratory or the dissecting-room? He is not *there* as a subject for experiment and cannot be there. He is taken as a dead force, not a living soul, when you put

him into the scales or under chloroform. His very cries at the touch of the knife might be no more than a simulation of pain by physical arrangements. If you declare them significant of something within, you do so by an argument from consciousness in yourself, and your interpretation is not 'scientific,' but metaphysical. Grant me consciousness, certified in itself, as the foundation of my reasoning, and I ask no more. But then it is your science that falls silent, not my religion. You perceive it already, Herr Professor, and would fain take back the key into the realms of spirit which your concession has put into my hands. It cannot be allowed.

He that has viewed the colours in the spectrum is not likely to be patient with a man born blind who infers from his never having seen one of them that they do not exist. The mechanician, fumbling about among those vast creations which we sum up too vaguely under single heads as art, literature, philosophy, ethics, religion,—and again, as love, chivalry, genius, heroism, enthusiasm, ecstasy,—would be a pitiable sight, were he not so insolently sure that what he fails to grasp was never worth believing in. For to him the reality which higher faculties lay hold on is impalpable, and therefore an illusion. Unhappy, and making unhappy, he would empty his own life of every motive for living, did not those poets, preachers, lovers, whom he scorns or interprets cynically, keep the air wholesome in which he breathes and moves. His own ideal is an exhausted receiver.

I seem to be slaying the slain, but it is far otherwise. The hatred of spiritual law and disdain of submission to the Highest have taken refuge behind this barrier above which floats in defiance the pirate's flag, 'No

God, no Master.' In the name of uniform laws, abstract, unethical, therefore without meaning for conscience, God is dismissed. I spare you the copious French blasphemies uttered on this bursting up of chaos from its fiery deeps. If they make us smile it is tragically enough. 'Thou wretched fool,' I would warn my Gallic atheist, 'wilt thou never understand that in denying the Supreme Life thou condemnest thyself to die in each part and parcel of thy being?' To die how shamefully, with what defilements of thought, feeling, imagination, and deeds unspeakable save among Yahoos! For to this it must and will come, as soon as the crowd learns that all beyond the recipes of chemistry is a poet's dream. We talk calmly under our trees in the garden touching immortal issues; but look out into the big cities, their lights on the night-sky lurid as the fancies of their hurrying multitudes, and what a spectacle to wring the heart! When I sketched such a night-scene once in a story, keeping its horror well within the shade, I was rebuked by grave persons, themselves irreproachable, who could have deepened my painting from knowledge close at hand. But we ought not to forgo that argument *ad verecundiam*. Certain it is that if man refuses to be godlike on the ground of physical science, he will descend below the brute, using his divinely-ordained powers to create an inverted image of the Infinite, or its perversion. Neutral, in the long run, he will never be. Is the genuine materialist neutral even now?

Perhaps the simplest way of stating the case would be as a problem in action, i.e. in the Euclid of practice: 'How am I to spend my days as I ought, being human?' Now every human act should be justifiable to reason—to the large reason of history, upon whose

cardinal tenets a judgment not less than unanimous appears to have been reached by the wisest. In all such resolutions of practical problems a theory is implicitly contained ; or, as I said above, axioms and postulates the truth of which appears by their own light. But of these, as bearing on human conduct, 'science' cannot furnish a single one. Suppose we substitute for personality a collocation of molecules and reduce the moral code to atomic forces in motion ; still the question returns, 'What ought I to do, being human, that is to say, being this allotropic form of the elements, C, N, H, O, with a little phosphorus thrown in ?' The chemist answers what ? Nay, what does the mere biologist answer ? I listen, but hear no reply. On the whole range of physical phenomena, tried by molecular methods, no prophet, orthodox or heterodox, has ever been able to set up a system of conduct. The Epicurean, whose kinship with atomic unbelief is demonstrable, cannot get from it his philosophy of pleasure as the only true Good. For atoms are atoms and obey their laws equally well under pain as under pleasure. And the School of Duty for Duty's sake preaches a doctrine on which no physical discoveries could possibly give us information. But the right relations of pleasure and pain to Duty constitute the central problem of ethics, that is to say, of Life.

Out, then, with you, Sir Chemist, who can tell the jury nothing beyond the compounding of drugs, but not the value, moral or immoral, of using them after they have been mixed. And behind you let the others troop, who know as little as you do concerning the relation of their own selves to your molecules—I mean the Darwinians, Haeckelians, physical monists, pure phenomenists of the Kantian breed. There is no

place for any of you when we put on our stage 'the tragedy, Man.' At most you might be carpenters and scene-shifters; you could not devise one line of the drama where choice of motives determines character and creates action, where 'man is man and master of his fate.' Do not rehearse to me the beneficent applications of medicine which soothe pain or prolong comfortable hours. Is it the method automatically unlocking Nature's secrets that deserves praise, and not the physician seeking how he might do a kindness to his fellows? I will exalt humanity, and reason under its guidance, as loudly as the best, for its own sake and because it gives the lie to materialism. The sceptical doctor who holds life sacred is more of a Christian than he believes. His heart is orthodox, little as he may think it. But ether and atoms furnish only the matter for morals, and that when they fall under the jurisdiction of conscience. Apart from it, though they expanded into a million star-clusters, they bear less meaning for mankind than the cry of a forsaken child.

On these counts let us conclude that science, which has only dead energies in its premises, regards the universe in one way; and that conscience, which starts from the inward life of men, regards it in quite another. They may have some things in common, but their process and value are entirely distinct. When conscience enters, religion takes possession of all that in any fibre touches me; I am its subject, never to be emancipated. Let me quote the sober words of one who, in asking what are the 'ethical aspects of evolution,' lays his finger on the pulse of modern philosophy. 'The scientific explanation,' says Mr. Benett in his thoughtful volume bearing that name, which refutes Darwin, 'extends only to external nature. Within

the, to us, far more important province of human nature itself, it has never yet been applied ; and there is nothing to justify the expectation that it will ever be made applicable. All hopes to that effect may be traced to the unreasoning prejudices of scientific men or a scientific age. Not only have attempts to reduce to scientific law the facts of religion, of morality, or art, been foredoomed to failure, but they seriously impair the efficacy of those essential elements in human nature. The explanation of human action as automatic is barred—in the first place by the methodological difficulty that its phenomena are not susceptible of measurement, and secondly, by the practical difficulty that it is not reconcilable with other interests which are distinct from the scientific interest and equally important.'[1] Summing the whole dispute in technical terms, I say that the method of science is quantity, the method of life is quality. In the attempt to analyse quality into quantity, quality is lost. Science, therefore, could not give us religion, and cannot take it away, for religion is the philosophy and practice of life according to its true ideals. Now with ideals science has no concern.

But you will not imagine me as one who deprecates, in 'the discussion of the deeper problems of man's nature and destiny,' the use of any tests, provided they do not defeat their own end. I am in perfect agreement on this head with the late accomplished F. W. Myers, 'Openness of mind'—'diligence in the search for objective evidence,' 'critical analysis of results'—surely these are requisite when we set about an enquiry into the grounds of our belief. The many, who have neither time nor talent for investigation,

[1] Volume cited, p. 88.

must be satisfied in a different way, by the unsystematic use of thought, by reliance on authority, by the lesson of experience rather than by experiment. And all of us are bound to respect the appointed guides of our race, tradition and intuition. Nothing short of insane would I count that man who, surviving from the wreck of the *Encyclopédie*, pitted his own brief observation against the judgment of mankind, as shown in widely scattered yet concordant testimony to the facts on which religion is based. And if he declared that intuitions revered by the philosophy out of which our social order has sprung were not in his knowledge, I should prefer to think him inaccurate or abnormal rather than the creators of civilisation deluded. There is certainly a superstition of science which calls everything questionable that can be questioned, and limits truth to the discoveries of research. We must never forget that intuition is direct observation, and that all research depends upon it; while tradition professes to be the record of facts handed down from the past; and, though it may be always submitted to cross-examination, for the most part we live by it.

Enough of Lucretius, the one philosopher who recurs like a decimal in systems opposed to man's real dignity and destiny. We will now call man himself to the bar and take his evidence.

LETTER XVII

PERSONALITY—A MIRACLE AND A MYSTERY—WHAT IS LOVE?—ALL PROGRESS AN ASCENT TO WHICH GOD STOOPS DOWN

My dear Friend,—Personality is a fact. I do not assume or prove it, for it is given as soon as I think at all. Like motion in space it is something not to be doubted. No illustration will make it clearer, no scepticism get rid of it. To be a person is to say 'I am I'; it is the subject implicit in all affirmations, the coefficient of thought without which mind is inconceivable. With explanations hereafter to be laid down we may term it the self-conscious. 'I am not thought, I am not action, I am not feeling,' said Thomas Reid, the philosopher of common sense, 'I am something that thinks, and acts, and suffers.' I am a world in myself, present to myself as no dead or unconscious thing can ever be. Thus I am subject and object at once; and this constitutes my peculiarity. I am a spiritual inwardness, a mental awareness. I live not in parts but in the whole. I am indivisible, yet have divers acts and potentialities; for I never do at a single stroke all that I might do. I exist in time, but the fleeting moment is somehow bound up with a past out of which I survive, and with a future towards which I hasten, while mysteriously I abide under every change, the same that I was before. In my innermost

being I would say that no change comes, for whatever I lose or gain I am not another.

This much, as a person, I know myself to be ; and when I look upon the molecular universe in which my lot is cast, I mark how truly in regard to it the conscious Ego is a miracle and a mystery. A miracle, for no power in the physical order can produce it, and a mystery, for matter does not comprehend it. Those who insist on continuity as the principle of science, demanded by evolution, should bear in mind that this absolute break between the conscious and the unconscious remains from beginning to end of both series. If they wish to maintain a primal identity, they must seek it in regions beyond the molecular ; in the series once initiated it will never be seen.

Personality is transcendent to matter, at once real and, so far as science can tell, either everlasting or of unknown origin. There is nothing in 'mere moving matter subject to the law of gravitation ' which requires or could bring it forth.

But precisely because I am the object of my own thought I stand inside Nature and decipher it. Matter is surface, Mind is centre. This introspection by which we learn to reason discloses Law ; our ideas correspond to facts ; astronomy is double—a scheme of mental mathematics, and a system of balanced forces in the deeps of heaven. All possible thought takes us back to thought that is real ; *our* truth is *the* Truth, not complete, but not a fiction. Hence we can win and enlarge knowledge by considering what the soul declares about its nature, processes, aims, and possessions. It is made for Truth and has the art of attaining it.

Now, ' What's my thought like ? ' That pretty children's game is excellent philosophy. Thought

persisting which, however chased away, comes back in flood, age after age ; thought positive and clamorous, or secretly persuasive ; common as day, yet plucking at my heartstrings wth a message for me—how it takes the pith and marrow from agnostic arguments ! I cannot but attend to it. For it reveals the qualities of things in telling me about myself. Did I, the ephemeral, create those stars that shine in the mental heavens ? That idea, for instance, of a perfect Being greater than whom nothing can be conceived ? All men have had it in glimpse or passing ecstasy ; and they answer it with love. It is not Plato, not Anselm, upon whose word they feel conviction ; neither do they hesitate before the Kantian fence which forbids them to leap from idea to fact. The thought is conveyed to their minds by instinct ; it comes unbidden as a whisper from the sphere-harmonies audible in most happy moments, when the mystic sighs ' O amare, O ire, O ad Deum pervenire ! ' And he knows that his longing was given by the Object which alone will satisfy it. This love, as pure as the dawn, more terrible than death, source of all religion, transcending friendship however dear, is as constant in the spiritual Kingdom as gravitation in the physical. Neither my life, nor yours, nor the world's history, can be unfolded except by that clue. The story of Man is the search after God. ' O amare, O ire ! ' Is not this the very formula of evolution as science pictures it ?

What is the object, the end, towards which creation moves ? It is the unknown or dimly guessed at Eros, without which nothing was made. For a movement not directed to an end would be irrational, nay impossible ; every line of motion is defined mathematically by its term. The term of the Ego

considered as an appetency is the Infinite whom it yearns after, whom, in the language of Pascal, it would not seek unless it had already found Him. Now there are two names associated with modern views touching the origin of species, Lamarck and Darwin, that seem to have appropriated each to himself one of the chief elements in question. Lamarck saw that variations could not arise without some effort, successful or otherwise, to reach an end ; they were due to the feeling a ' new want ' and implied a purpose. Darwin, if the variations were granted, laid down as the method whereby that end was attained natural selection. To Lamarck the goal was visible, to Darwin the path. Of course, evolution in the species can but signify that individuals once on a lower level have ascended to a higher. But this clearly is nothing else than extending the power and notion of life as we see it in action. Life is development on a plan, by which foreign materials are absorbed and assimilated so as to bring to maturity the germ that controls them. For they serve it, and the *spiritus rector* dwelling within it is sovereign over them, yet according to a constitution. As, then, we perceive an ideal of the single life for each one in a species, we ask what is the nature of that ideal. There is, let us grant, a struggle for existence ; what kind of existence ? I have written on the title-page of Darwin's ' Origin ' these lines from ' Hamlet ' :

> What is a man
> If his chief good and market of his time
> Be but to sleep and feed ? a beast, no more.
> Sure, He that made us with such large discourse,
> Looking before and after, gave us not
> That capability and godlike reason
> To fust in us unused.

A third notion comes to complete these others of path and goal, which sums them both up in the word progress. And progress looks towards the future as that future dominates the present. These felt needs aim at benefit to the subject by which they are felt, or towards the species of which he is a member; they cannot be suicidal instincts, whatever aberrations befall them by accident. For no creature is directly impelled to its own destruction. But, as Hamlet argues, the godlike reason within us forbids that man's mere purpose is 'to sleep and feed'; he refutes by anticipation Goethe's crude epigram according to which mankind, having fulfilled its animal functions, can do no more, 'weiter bringt es kein Mensch.' Did not Goethe pursue a nobler idea of self-development than could be achieved in that way alone? The question will not be silenced when we gaze on the passing generations of mortals and seek why they come and whither they tend. Their existence as a species does not answer it. The struggle to live on a planet such as ours may burn up its forests, exhaust its coal, dissipate its chemical resources; but the Ego demands a higher life, nourished in a spiritual environment.

Could we set up a perfect balance between our race and the world's wealth, securing an immortality on earth to Man, though each successive generation died, would Reason be satisfied? Evidently not. We have in our nature a whole universe of aspirations, that the Darwinian strife does not take into account. The future we long to attain will be unlike the present, as the present is unlike the past, not so much in physical features as in the value of character realised by obedience to heroic impulse. That such individual

greatness should contribute only to a man's eating, sleeping, and continuing his kind, as an animal among animals, no reflecting spirit will allow. The lack of proportion between means and ends proves it to be false. Duty, Truth, Self-sacrifice, the passion for pure knowledge, all to serve a race of Yahoos and to propagate them! That can never be.

You will remember, doubtless, the evidence brought forward by Dr. Russell Wallace, showing that man's brain has developed in size and complexity far beyond the requirements of evolution limited by animal needs. The prospect opened thus stretches away to a future so captivating that words will not paint it. For the individual who has a dower like this stands not alone. He is one of an ever-growing company. The majority belongs to that future; visible species adapted to the day passing over us, cannot compare with the nations of the dead and the unborn. If I draw prophetic inferences from my own feeling of a destiny not to be accomplished in so short a term; if my life seems to me (and it does) only a rehearsal, by snatches, of some great piece in which I am yet to play my part, that other Divine drama spreads out upon a stage wide as the universe, and the stars do but serve as its footlights, the visible is no more than its drop-scene. I must find scope there, at last, for what is in me; there make the best of myself; and how except in some perfect scheme of love? Do not dream that my argument is self-regarding. It reveals to me the kingdom of ideal ends in which I am a citizen. But love can never make a solitude. We belong to a heavenly race; the Supreme is 'Father of gods and men.'

For my purpose, then, at present life may be

defined as love of the Best desired, pursued, and in course of time or eternity realised. However thick the cloud which hides from us the final cause of those millions of suns far-sown through space, we cannot fail to perceive in our part of the universe an adaptation of means to ends, of stage to stage, of the earth to man, and in man himself of each moment to the following. Biology is incomprehensible without an immanent purpose. Our whole being before birth and after is a work of art, the life-tissue woven on a pattern to serve both instant and future needs. From the embryo we may prophesy the infant, from the infant the adult ; that is for the sake of this, and the outline is traced which shall in due season be filled up. A regulative idea broods over the movements of the bioplasts, which obey it as soldiers obey their general. It is not the physical force driving them on that will account for co-ordinations and arrangements to meet the demands of quite another stage, any more than a steel spring and a number of wheels could make Paley's watch in the absence of an idea guiding the maker. To note the gradual stealthy emergence of a living system, part by part, into the complete human creature, is to be aware of a mind intent upon its object already conceived.

About this ' final cause ' there can be no hesitation ; if denied in one shape it will come back in another. Darwin's ' Descent of Man ' abounds in the language of design and forecast ; the ' will to live,' inherent in the germ, somehow contains or manifests a thought which controls by selection, and rejects whatsoever is not to its purpose. Observe that I maintain the presence of such thought behind every movement, physical no less than vital,

throughout the universe. But in life it takes on a human semblance so startling that, as Professor Ward allows, the drift and fortunes of reality become altogether new as soon as it appears on the scene. Life moves by continually fresh adaptations of its resources to circumstances, and these often so original that while the end is clear in view the means could not have been guessed beforehand. Neither does life resist death mechanically, as some would infer from Bichat's famous definition. It resists by marshalling under the control of an influence *sui generis* whatever means, mechanical or other, it can find.

Man begins as a potency, the merest speck, the less than dimmest sense or apprehension. In him is one life, unfolding itself along the lines of touch with seen and unseen, from the first as it were multiplied yet in fact not divided ; and that which he seeks is himself made real instead of a possibility, complete instead of partial. At first he is like the vague idea in a poet's mind, which contains the whole drama but inarticulate, ' that unbodied figure of the thought that gave it surmised shape.' He takes hold of things outside—I pray you mark—by actions which, attaining to them, have yet their own term within, and these we call ' immanent,' these alone are vital, they perfect sense, mind, will, or character by an ideal possession of their objects which otherwise they need not affect. I perceive a landscape in the Alps, I listen to the Eroica Symphony ; but I leave the heights as I found them, and the music in me is not the vibration of those strings and instruments, it is my creation, interpreting the stricken chords. Atoms and Energies know nothing of such a power ; their motions are transitive, not returning on and

in themselves. Hence they are dead, even when the spirit uses them ; they run on surface dimensions and have no depth. But life has depth below depth, height above height, and He whom we seek has stooped down to find us.

LETTER XVIII

FINAL REFLECTIONS ON ARMISTICE DAY—'I KNOW THAT MY REDEEMER LIVETH'—THUS RELIGION ANSWERS THE APPEAL OF SCIENCE

MY DEAR FRIEND,—'Finis legis Christus.' Christ is the end of the Law in a double sense—by fulfilling it as an Ideal realised, and by thus making it possible for mankind to share in it unto Life Everlasting. He refutes the deadly falsehood of sceptic, agnostic, and materialist, simply as a divine and human Reality which it would be the height of unreason to deny. That a dead universe could not give birth to Him is self-evident; and, since He came from the Life, Jesus of Nazareth is at once its proof and its triumph.

Look back at the discussion which we are now closing. On the side of our opponents it has been throughout negative, with its champion Mephistopheles, 'the spirit that for ever denies'; and the conclusion of the whole matter would be darkness on the face of the deep as regards man's origin and destiny. Consider how language and thought implying holiness towards God lose all meaning, while virtue and heroic resolution turn to expediency for the one or the many, when our whole existence passes 'between a sleep and a sleep.' Job, almost worn out by suffering, enquired despairingly, 'if a man die shall he live

again?' After centuries the reply was given by Christ crucified and risen from the dead.

We have seen how, in deference to that truth which has for them no eternal or absolute value, unbelieving men of science put aside all that gives our life more than a momentary value. Ideals to them are but imaginations, in Pindar's words, 'the dream of a shade.' History with its countless deeds of heroism,—so George Eliot sang,—was but 'a scroll within a tomb, to be unread for ever.' Thus would all the magnificent conquests of knowledge end in a negation, not without irony.

These letters, which I began before the War, I am ending on Armistice Day. And while the strains of Handel's ever heart-shaking Dead March float around me, pathetic, triumphant, after the Requiem service, while I think of my dear comrades fallen in battle, I look once more at my Problem. What, in fine, is it? Surely, nothing else than this—whether we are justified in extending the principle of the conservation of energy, by which science resolves all its enigmas, to Life. Why should we not? For proof and illustration we appeal to what Life does, to marvellous experiences beyond the reach of matter and motion, science itself admitting so much by its princes, Huxley, Tyndall, Spencer, Du Bois Reymond, with convincing unanimity. Life, then, is no accident, does not come about by chance, has its own reason in the nature of things; how much greater reason than matter has it not, to rely on Goethe's aphorism, 'no being can from being fall'?

Perhaps the most winning demonstration of this Gospel is bestowed on us in the words of Christ standing by the tomb of Lazarus, 'I am the Resurrection

and the Life.' They announced, and we may say they began, the renewal of all things, which is manifestly the work that our Lord was sent to do, and is ever doing. But in this loftier sphere the law is freedom, the power inspiration. Hence we walk by Faith and not by sight ; neither can we simply foretell results as in a laboratory. With freedom are bound up tragic possibilities. It must be so, unless men are machines moved by another than themselves. But we know that we can, as unhappily we often do, make a wrong choice. This again, proves us to be something other than matter and motion, for no machine goes wrong wilfully. On the consequence of deliberate evil choice I am not proposing to dwell, neither is it necessary. Freedom granted, as our intimate self-knowledge testifies, every man becomes his own Fate. Such is the only valid and acceptable meaning of ' Karma.' Without our own free act we cannot be lost or condemned in the moral order. And predestination to evil is impossible—' What thou wilt be, that thou shalt be.'

It is a fine and true saying of the poet, ' No work begun on earth shall pause for death.' Here is my principle of the conservation of Vital Energy, illustrated by the martyred Pompilia in ' The Ring and the Book.' Her life was a tragedy, her death its victorious close. But can we imagine a barren victory, a mere escape by suffering, from evil too mighty for it ? No, we will pray with Æschylus, ' Let the good prevail ! ' Therefore, death does not end all.

Another essential condition follows on our free choice. It must involve risk, and act for the sake of Right, not simply for a sure recompense. And the

comparative obscurity which hangs over the life to come aids our freedom. Clouds and darkness are, we confess, nay, we insist, round about that Life ; to believe in it requires and rewards a determined act of will, by which Reason acquires the merit of Faith and prompts to a like enthusiasm. An instructive analogy is afforded by the double motive, for instance, of selection in marriage, where personal affection fulfils Nature's intention, but freely and from choice. Did we perceive that Divine realm which is now hidden, our interest here below would cease, and we should act under a constraint all the more effective because it was agreeable.

To the same final cause we may refer that most formidable of difficulties brought against Theism—the apparent disregard of virtue and the unrequited trials of the good, which have made the world's history so often in appearance a scandalous chronicle. 'Shall gravitation cease as you go by?' Pope enquires mockingly of the saint ; and we cannot answer Pope ; yet we feel unhappy. A little quiet reflection will show us that our very freedom is enhanced by the challenge to Faith. In some striking verses the poet (your namesake) has depicted the situation where God makes Himself strange to us, and as it were the Saint's enemy. But consider the Bible itself. Does not the whole story move from Genesis to Revelation by the trial of Faith? God's chosen heroes are tempted, that is to say, tried to the utmost, and martyrdom fulfils literally Job's defiant, yet not despairing cry, 'Though He slay me, yet will I trust in Him.' St. Paul does not shrink from glorying in the 'scandal of the Cross.' Thanks to this new philosophy, suffering became holy ; the stumbling-

block was made a stepping-stone to perfection ; and the saints reigned with Christ because for Him they died. I leave you to meditate on all that is implied in this earthly wisdom, of which the New Testament is full.

It shows the Creator as at once Love and Light, yet shining through the dark.

Unbelieving science glories in the assertion that 'Nature is Law,' thereby with Laplace (if ever he said it) concluding that it has no need of the hypothesis of God. We want a short effective answer to this evasion ; and I find one in Pope's 'Essay on Man,' where he is rebuking the petulant critic of things in general. The poet replies :

'All Nature is but Art, unknown to thee.'

I hold this to be a deservedly famous line, sound sense and not contemptible verse. The word 'Art' is much more direct in pointing out personality than the word 'Law' ; we see the Divine Artist, as it were in the days of Genesis, well-pleased with His creation ; and we cry aloud, 'All Thy works shall praise Thy name, in earth and sky and sea.' Men of genius not more alike than Pascal and Voltaire, as well as Pope, have adopted this identical aphorism, 'Nature is Art.' To fancy an Art where Chance is King, or no Mind controls energies, would be impossible did we keep in the foreground of our thought how beautiful are the Heavens above and the earth beneath. I am tempted to refute agnostic silence, and still more atheist objections, by the truth which no unbeliever can question ; if there be a God, is it not on the lines of beauty that He would make Himself known—yea, rather, of beauty and terror—to us who could not

bear the light in which He dwells? Since we perceive that Nature in all its aspects proclaims the Artist, our loneliness in a dead universe should yield before the Hymn of Praise. Let me call upon a witness you would not readily think of in this connection—our often quoted Professor Huxley.

'I take it,' said he in a Lecture on Science and Education,[1] 'that all will admit there is a definite Government of this universe,' and he went on to affirm a large scheme of optimism in the following remarkable words: 'The predominance of happiness among living things—their lavish beauty—the secret and wonderful harmony which pervades them all, from the highest to the lowest, are striking refutations of that modern Manichæan doctrine which exhibits the world as a slave-mill, worked with many tears for mere utilitarian ends.' Huxley enjoyed keenly the delight of music, and was an enthusiastic admirer of great painting and sculpture. He teaches elsewhere in this volume that man is the only creature with a sense of art—which cannot perhaps be maintained—but how much he grants in saying so! Did man invent this form of perception? and if not, where is the other Mind that finds pleasure in the 'secret and wonderful harmony' pervading Nature? Thus to our amazement we have been led on, by an English agnostic for guide, to the Ideas of Plato, and they are everlasting. So true is it that we cannot escape the presence of God. 'Whither shall I flee from Thy Spirit?' cries the Psalmist, and we echo his cry. A crumpled rose-leaf, a gleam in the water lit up by sunset, a child's happy smile, waken in me the conviction that, as I am looking out upon Nature, so is there Another gazing on me,

[1] *Essays*, iii. 62.

nay, more, intimating the secret of which all these touches are disclosures.

In the 'Essays' of Huxley I turn to a later page, and a figure of comparison even still surprising to me, though I have long known it in this very page (iii. 82). Huxley considers life as a game we must take part in. 'The chess-board is the world, the pieces are the phenomena of the universe, the rules of the game are the Laws of Nature. The player on the other side is hidden from us. We know that his play is always fair, just and patient. But also we know to our cost that he never overlooks a mistake, or makes the smallest allowance for ignorance. To the man who plays well, the highest stakes are paid. And one who plays ill is checkmated—without haste, but without remorse.'

Is it not amazing, I say, that, after such a profession of faith in an objective Law of Righteousness, identical with the Nature of Things, the lecturer should call himself simply an agnostic? We surely are debarred from ascribing to a mindless universe conduct which is always 'fair, just, and patient.' These attributes reveal the Divine Mind as in some sense infinitely human. A blind world is neither fair, nor just, nor patient. Ethically, it is nothing; it cannot reward virtue or punish vice, being destitute of any categorical imperative, good or bad, except physical necessity. If there should be, across the board, a hidden player, 'a calm strong angel, who is playing for love,' Religion has won, and Unbelief has been checkmated. The hidden player cannot be ignorant of the nature, rules and issue of this contest, for unless He knew, the game could neither be set nor fought out.

Equally remarkable, I should say, is the fact which we know, that Huxley's visible optimism would encounter great difficulties on the part of Christians themselves. Pope's 'Essay on Man' is concerned from first to last with a vindication of the ways of Providence; but his most powerful verse bids us to

Wait the great teacher Death, and God adore.

We believe that the Supreme Judge will Himself overcome when His creation stands before Him in the Day of Account. Until then, our faith is constantly exercised by the trials of the just and triumph of the wicked, by seeming waste, and want of compassion for the innocent. Faith assures us that all will be well at last with the just man; reason demands it; but experience fails to give any mortal such a view of life's chessboard as would now justify the apparent result in every instance.

Taking, meanwhile, these two quotations from Huxley as a core of truth, we may turn them to immediate profit. Since 'Nature is Art,' to deny the Artist will be impiety; and since Beauty is not our idle day-dream, but cast over the Universe regardless whether human eyes behold it, or human genius imitate the music of the spheres, we have assurance that God Himself delights in His work; He is not indifferent to the things He has made, and least of all to Man. Therefore, when Revelation arrives, it enchants us by romance, adventure, and the hero's choice; by liturgy and the arts adorning it, by an eternal youth such as the angels enjoy. For this reason, too, we hate the gloomy denials of unbelief. They would darken our minds, cut off hope, and bid us despair. Modern teachers, calling themselves,

or being in fact, 'preachers of death,' will not allure those who have tasted suffering by moods of too facile optimism. We are under God's law, but He knows the heart. In good time He will send us consolation.

And this leads me back to that mood of reflection which flings over all our argument an atmosphere of its own. Why is Religion, since we hold it to be the highest truth, not as peremptory as mathematics in eliciting assent to its propositions? I reply that our Maker will not accept as meritorious a service where freedom is excluded; hence we must infer that in order to secure the grace and beauty of a moral choice, something is left dark in our reasoning about God, conscience, immortality. The argument itself is adequate, is impregnable; but the mind of man is a vast abyss over which sweep many winds of doctrine. His belief at last is a voluntary decision; if right, then rational, but an act of the enlightened will no less than of the devout spirit. Thus it is akin to the creations of art; and indeed our faith springs from the soul's action, shapes life by God's inspiring grace into a noble, a divine poem, and is free with all the joy, humility, and courage, of Love given and returned.

'*Amor omnia vincit.*' Love shall be the conqueror. That is my reply to Spencer's despair of Truth at last; to Huxley's revolt against the cosmic order; and to Romanes when he denied God. For I know that my Redeemer liveth; and in His life our own is sure.

Ever yours,
WILLIAM BARRY.

November 11, 1927,
Armistice Day.

Printed in England at THE BALLANTYNE PRESS
SPOTTISWOODE, BALLANTYNE & CO. LTD
Colchester, London & Eton