OBSCURANTISM IN MODERN SCIENCE.[1]

UNDER the ægis of an Institution called the North London Christian Evidence League, there was recently published a collection of letters from experts in various branches of science which were answers to inquiries made by the League as to the attitude of these eminent persons towards orthodox beliefs.[2] The eagerness with which the editor construes the vague replies of some of the questioned into endorsement of current dogmas says more for his shrewdness than for his candour, while the state of mind which believes that the validity of any creed can be settled by a referendum betrays a lack of humour and of sense of proportion. What value can there be in assent to a body of alleged facts to which no tests are applicable; to statements which can never be submitted to the ordinary canons of evidence; statements contained in ancient documents which are products of an age when the unusual was explained (if things were explained at all, which is doubtful) as a supernatural event? Moreover, when assent to these reported occurrences is obtained, what bearing has that on the conduct of life? What relation is there between the dogma of the Trinity and moral codes? As Mr. Sturt says in his *Idea of a Free Church*, "Historical evidence could never do more than predispose a man to try how a suggested religion works in practice. It is by practice that religions are validated or discredited. Christianity is not a system of evidence; it is primarily a way of looking at life" (p. 85).

The tenacity with which the Church clung to dogmas now discredited, as, for example, the vicarious theory of the Atonement, and physical torture in an eternal hell, reasserts itself as the dogmas that remain entrenched in the citadel of the supernatural are challenged. In the degree that men of high intelligence affirm their adherence to those dogmas, comfort comes to those who sit in uneasy chairs in Zion. Authority determines the opinions of most of us; in the domain of Science, legitimately so, because we have the consensus of the well-informed and the means of testing for ourselves the evidence on which their dicta are based; but in the domain of Theology, illegitimately, because the authorities are not in accord, and because no means of testing the data on which their dicta are based are producible. But the multitude do not discriminate, they assume that the man who

(1) Read before the "Heretics" Society, Cambridge.

(2) *Religious Beliefs of Scientists.* By A. H. Tabrum. (Hunter and Longhurst, London.)

can speak with unchallenged authority on the subject of which he is a master, is entitled to speak with like authority on everything else. Some satirist has said "that mere denial of the existence of God does not qualify a man to be heard on matters of higher importance," and it may be said conversely that mere assertion of belief in a Creative Power and Ultimate Purpose in the Universe cannot carry more weight because the assertor has made important discoveries in physical science.

There can be little doubt that the more confident tone adopted by recent defenders of the remnants of "the faith once delivered to the saints" has its explanation in a reaction which has set in against the too dogmatic spirit which, a couple of generations ago, pervaded certain scientific deliverances in the enthusiasm begotten by discoveries whose effect on men's attitude towards phenomena was one of revolution. "Old things passed away, all things became new." But to make discoveries of the causes of the origin of species, and of the fundamental identity of the matter of the universe, the bases of assumptions that only minor problems awaited solutions, is to forget what manner of spirit we are of. As M. Duclaux has finely said, "It is because science is sure of nothing that it is always advancing." We may add that in the degree that theology is sure of anything, stagnation is its doom.

The reaction to which reference has just been made has led minds in whom the wish to believe is greater than the desire to know, to seize the more eagerly upon certain deliverances of men eminent in science, the apparent effect of which is to buttress the shaken structure of orthodox beliefs. As illustrating this, in his day, the well-nigh forgotten Sir Richard Owen secured the benison of entirely-forgotten bishops because of his contention against Huxley that a certain lobe in the human brain, known as the hippocampus minor, is lacking in the brain of anthropoid apes. Owen was proved to be in the wrong, but the great weight of his authority as a comparative anatomist retarded, and in some measure still retards, acceptance of the fact that the differences between man and ape are differences of degree and not of kind.

Again, as recently as 1903, a lively controversy arose in *The Times* out of a statement by the late Lord Kelvin that "modern biologists were coming to a firm acceptance of a vital principle," and that "a fortuitous concourse of atoms may result in the formation of a crystal, but when we come to living matter scientific thought is compelled to accept the idea of Creative Power."[1] *The Times*, in a leader on this letter, called this "a

[1] Letter to *The Times*, May 4th, 1903.

weighty contribution to the formation of just opinion on the subject," whereupon, with a logic wholly lacking in that deliverance, Sir Thiselton-Dyer contended that while in the domain of physics he would be a bold man who dare cross swords with Lord Kelvin, "for dogmatic utterance on biological questions there is no reason to suppose that he is better equipped than any person of average intelligence."[1] Then a waft of fresh air was imported by Sir Ray Lankester in his declaration that "the whole order of nature, including living and non-living matter, is a network of mechanism the main features of which have been made more or less obvious to the wondering intelligence of mankind by the labour and ingenuity of scientific investigators. But no sane man has ever pretended that we can know, or ever can hope to know, or conceive of the possibility of knowing, whence this mechanism has come, why it is there, whither it is going, and what there may or may not be beyond and beside it which our senses are incapable of appreciating. These things are not explained by 'science,' and never can be."[2] And, it may be added, the theology which explains them has yet to be discovered.

Much to the same effect had been said before by Huxley and Tyndall, and men of lesser calibre, and much to the same effect has been said since; but in some influential quarters this confession of nescience is qualified by assumptions of knowledge as to a meaning and purpose at the core of things. As prominent examples of this we may take Sir Oliver Lodge and Dr. Alfred Russel Wallace, whose re-affirmance of such assumptions constitute the main purpose of their most recent books; Sir Oliver's *Reason and Belief* (Methuen & Co.) and Dr. Wallace's *World of Life* (Chapman and Hall).

Dr. Wallace, whose mental agility, in his ninetieth year, is an answer to every counsel of despair that would slacken energy, gives us what, practically, is his last will and testament, because, he tells us, it is his "summary and completion of a half-century of thought and labour on the Darwinian theory of evolution."[3] The body of facts therein has led him to the conclusion that there is "first, a Creative Power which so constituted matter as to render these marvels possible; next, a directive Mind, which is demanded at every step of what we term growth; and lastly, an ultimate Purpose in the very existence of the whole vast life-world in all its long course of evolution throughout the eons of geological time. This Purpose, which alone throws light on many of the mysteries of its mode of evolution, I hold to be the

(1) *Times*, May 7th, 1903. (2) *Times*, May 19th, 1903.
(3) Preface, p. v.

development of Man, the one crowning product of the whole cosmic process of life-development . . . the only being who can appreciate the hidden forces and motions everywhere at work, and can deduce from them a supreme and overruling Mind as their necessary cause." Further on, Dr. Wallace asserts that "the special purpose of this world of ours is the development of mankind for an enduring spiritual existence . . . for which the whole object of our earth life is a preparation." (Preface, p. vii.)

With this quotation should be linked the argument with which Dr. Wallace's treatise on *Darwinism* (published in 1889) concludes, namely, "that there were at least three stages in the development of the organic world, when some new cause or power must necessarily have come into action. The first stage is the change from the inorganic to organic; the next stage the introduction of sensation or consciousness, constituting the fundamental distinction between the animal and vegetable kingdom. The third stage is the existence in Man of a number of his most characteristic and noblest faculties, those which raise him furthest above the brutes and open up possibilities of almost indefinite advancement" (pp. 474–5).

In his *Riddles of the Sphinx*, Dr. Schiller remarks that "A matter of fact is something which must be faced, even though it may be unpleasant to do so, whereas a matter of opinion may be manipulated so as to suit the exigencies of every occasion" (p. 364). And the difficulty in dealing with the thesis laid down by Dr. Wallace is that there are in it no facts to be faced, only a series of assumptions in support of which not a shred of evidence that can be sifted is offered. It would seem sufficient to say, in refutation of these assumptions, that their acceptance would be destructive of the entire theory of the processes of evolution which an ever-growing body of facts prove that if they operate anywhere, they operate everywhere. Heedless of this, Dr. Wallace advances in explanation of those processes, a theory that the "organising mind need not be infinite in its attributes," [1] or "not necessarily what we may ignorantly mean by 'omnipotent' or 'benevolent' in our misinterpretation of what we see around us." [2] He spurns the apparently gratuitous creation by theologians of a hierarchy of angels and archangels with no defined duties but that of attendants and messengers of the Deity,[3] and, no doubt,

(1) p. 392. (2) p. 399.

(3) "Preaching at St. Paul's, Harringay, the Bishop of London argued that God and the angels were always near us" (*Daily Chronicle*, November 6th, 1911). There was published in December, 1911, *A Study of Angels*, by the Rev. J. H. Swinstead (Hodder and Stoughton), to which Lord Halsbury contributes an Introduction. Probably both prelate and jurist will be cited as authorities on the subject.

willingly hands over explanation of the belief in these winged animals to the comparative mythologists. But this is only to replace them by the hypothesis that there is "an almost infinite series of grades of beings having higher and higher powers in regard to the origination, the development, and the control of the Universe," "some of them creating by their will-power the primal universe of ether," and others "so acting upon it as to develop from it, in suitable masses and at suitable distances,"[1] the various elements of matter from which nebulæ and suns are formed! Hypotheses have their value, as the history of advance in science testifies, but they must be of the workable order, and where can place or warrant be found for this resuscitation of animistic beliefs? The functions of this heavenly host, as defined by Dr. Wallace, appear to be only physical, the Deity reserving to Himself the moral government of the universe, a government which Dr. Wallace contends is wholly beneficent. He argues that there is no cruelty in Nature; "the whole system of life-development is that of providing food for the higher," and the pain which is a fundamental condition of that system is not maleficent, but protective. In the lowest organisms, where the rudiments of sensation are present, it is practically absent, and the revolt of the humane at the spectacle of animals suffering arises from "our whole tendency to transfer our sensations of pain to them."[2] The action of a directive purpose meets us everywhere; it is evident, for example, in the myriad swarms of mosquitoes, because these supply food for birds, and thus indirectly minister to the existence of song and plumage whereby the ear and eye of man are gratified! Dr. Wallace does not explain what beneficent purpose lies in the multiplication of blood-parasites that slay their thousands by the appalling "sleeping-sickness" whose venomous causes man is striving to extinguish; or in the Californian poison-vine which, when brushed against, produces eczema over the whole body; or in the macuna bean of Zambesia, whose trodden-on spines revenge the assault by exuding a powder so skin-maddening that the tortured natives will jump into a crocodile-haunted river to relieve the agony. His teleology is a reversion to the smug lessons of our boyhood when "the soul of good in things evil" was expounded in the namby-pamby literature of such books as *Workers without Wage*, of the contents of which this is a sample:—

Q.: Is there any use in the gadfly and his like?

A.: Yes; they have a use in making wild cattle move from spot to spot, and in preventing the flocks and herds from growing too indolent.

(1) P. 393. (2) P. 377.

The purposeful involves the ethical, and the ethical is a purely human product. Neither good nor evil can be imputed to Nature; hers is the sphere of unbroken sequence which man can oppose only to fail in the attempt. And the optimism of Dr. Wallace has dignified retort in the lines in which Thomas Hardy addresses a Deity whom he pictures as reviewing His government of things at a year's end.

> "And what's the good of it, I said,
> What purpose made you call
> From formless void this Earth I tread,
> When nine and ninety could be said
> Why nought should be at all?
>
> Yea, Sire, why shaped you us, 'who in
> This tabernacle groan?'
> If ever a joy be found therein,
> Such joy no man had wished to win,
> If he had never known!"[1]

"Bigness is not greatness," as Emerson says, but one would presumably expect the "Creative Power" to exhibit some sense of proportion. And we may well assume absence of that saving grace if Dr. Wallace can make good his *rechauffé* of the anthropocentric theory which evolution has traversed, and, as some of us think, demolished. A survey of cosmic development can but suggest the reflection that the purpose which Dr. Wallace sees in the universe might have been achieved by shorter cuts. The justification for the existence of a myriad heavenly bodies and, to make quick descent from these, for the miscellaneous organisms preceding man, the most remote star and the "dragons of the prime" being alike agents of his spiritual evolution, seems far to seek. And if we judge from the history of only these last-named, we see in the majority of them a series of unsuccessful experiments; perchance the ''prentice hands' of the angelic auxiliaries resulting in the production of a mass of superfluous unfit to secure the existence of the fit. Pointing to them, Nature can only confess, with Beau Brummel's valet when showing to a friend of his master's a heap of discarded ties, "These are our failures."

As for an "enduring spiritual existence," to once more quote Dr. Schiller, "The end and origin of the soul are alike shrouded in perplexities which religious dogma makes serious attempt to dispel. . . . Whence does the soul come? Does it exist before the body, is it derived from the souls or the bodies of its parents, or created *ad hoc* by the Deity? Is Pre-existence, Traducianism, or Creationism the orthodox doctrine? The first theory, although

(1) *Fortnightly Review*, January, 1907.

we shall see that it is the only one on which any rational eschatology can be, or has been, based, is difficult, and has not figured largely in religious thought; but the other two are alike impossible and offensive. Indeed, it would be difficult to decide which supposition was more offensive, whether that the manufacture of immortal spirits should be a privilege directly delegated to the chance passions of a male and female, or that they should have the power at their pleasure to call forth the creative energy of God." [1]

Can Dr. Wallace tell us at what precise stage in man's development the Creative Power intervened either directly, or through his "hosts of angels"? Was the "enduring spiritual existence" conferred on *Pithecanthropus erectus*, or postponed till he had become more pronouncedly *Homo sapiens*; and does Eolithic or Palæolithic man come under that head? As to the "almost indefinite advancement" which this spiritual endowment was to secure, does the history of mankind, from the dateless Ancient Stone Age to this twentieth century of the Christian era, show that that has been even approximately reached? It is all very well to point to the altitudes to which a few units among the millions of humankind have attained, but what of the depths in which the myriads have remained? Is not any tendency to smug satisfaction checked by even the most superficial acquaintance with the story of mankind, with its record of the millions whose existence has been, and the millions whose existence to-day remains, less enviable than that of the brutes? of the millions whose eyes were opened only to close on the darkness of death? of the low intellectual, moral, and spiritual plane on which all but an infinitesimal number stand, and the extinguishment of many of these in the fullness of their power and usefulness? And so the survey might be extended till we reach the degrading sequel of an "enduring spiritual existence" which makes proof of its survival by raps and knocks, and by the whole bag of tricks of the mediums for whose integrity as claimants of communication with the unseen Dr. Wallace goes bail. For it is in his belief in the validity of the phenomena of spiritualism that the explanation of his theories is found. Take this as culled from many proofs. When summoned as witness in an action brought by one Archdeacon Colley against Mr. Maskelyne, Dr. Wallace deposed that he saw a white patch appear on the left side of a man's coat and grow into the distinct figure of a woman in flowing drapery, and that he was absolutely certain that this was a spiritual manifestation.[2] Further, Dr. Wallace, face to face with the exposure of the medium Eusapia Palladino,

(1) *Riddles of the Sphinx*, p. 372.
(2) *Daily Mail*, April 27th, 1907.

averred that that detection "in no way got rid of the genuine phenomena previously witnessed."[1] Of this woman's performances Mr. Frank Podmore says that the whole of them can be explained by the time-honoured device of substitution of foot or hand.[2] And the end and aim of the *World of Life* is made obvious in the advice which Dr. Wallace gives therein to his readers to study, "as dealing with the ethics and philosophy of spiritualism," the late Stainton Moses' *Spirit Teaching* and V. C. Desertes' *Psychic Philosophy*.

Space forbids further criticism of the *World of Life*, with its limited Deity working with assistance in a limited Universe—for in his *Man's Place in the Universe* Dr. Wallace contends that the sidereal system is finite—and what remains available must be given to Sir Oliver Lodge's *Reason and Belief*.

In his *Substance of Faith Allied with Science: a Catechism for Parents and Teachers* (now in its tenth edition), Sir Oliver gives as his credo, "belief in one Infinite and Eternal Being; a guiding and loving Father, in whom all things consist." Further, that "the Divine Nature is specially revealed to man through Jesus Christ our Lord, who lived, taught, and suffered in Palestine 1900 years ago, and has since been worshipped by the Christian Church as the immortal Son of God, the Saviour of the World." He also believes that "man is privileged to understand and assist the Divine purpose on this Earth; that prayer is a means of communication between man and God, and that the Holy Spirit is ever ready to help us along the way towards Goodness and Truth, so that by unselfish service we may gradually enter into the Life Eternal, the Communion of Saints, and the Peace of God."

In this we have a slightly eviscerated Apostles' Creed, to which a supplement is given in *Reason and Belief*. The basis of that book, Sir Oliver submits, is "one of fact." Among the facts is the now unchallengeable one, that of man's ancestry "on his bodily side through the animals, whereby a terrestrial existence was rendered possible for beings at a comparatively advanced stage of spiritual evolution. Plato and Shakespeare and Newton lay then in the womb of the future." Probably Sir Oliver had in his mind Tyndall's famous sentence in which, with a true "scientific use of the imagination," he said that "all our philosophy, poetry, science and art—Plato, Shakespeare, Newton, and Raphael—are potential in the fires of the sun."

Now for the assumption. "There must have come a time when at a definite stage in the long history the triumphant hymn, 'It

(1) Letter to the *Daily Chronicle*, January 24th, 1896.
(2) *The Newer Spiritualism*, p. 144.

is finished ; man is made,' was sung." Whether the vocalists were of the angelic type with which the Gospels and, with a difference, Dr. Wallace, make us familiar, we are not told, neither are we helped, in seeking to arrive at the process of the making of man by Sir Oliver's hints at "pre-existence," or at our being "chips of a great mass of mind," individuality being attained in the incarnation of these "spiritual fragments in their several bodies, and thereby the permanence of personality secured, . . . for no thoughtful person can really and consistently believe that the spirit will not survive the body" (pp. 10–11). In connection with this vague ontology, there follows a chapter on the "Advent of Christ," in whose supernatural birth Sir Oliver apparently believes. It is often not easy to catch his meaning, the words are elusive, but he says that to him, as "a student of science," the "historical testimony in favour of that momentous Christian doctrine—the Incarnation—is entirely credible." There is a watering-down of the significance of this in his remark, "We are all incarnations, all sons of God in a sense, but," &c., &c. Anyway, the Incarnation was necessary, because man, who had hitherto been in a state of innocency, like the animals, having arrived at a stage when he realised that he was free and could "discriminate between good and evil," utilised that power and fell, whereby sin entered into the world. Help has been rendered by men to their fellows ; help, too, "by other beings and in other ways"—"I believe this to be literally true" (p. 40), adds Sir Oliver, thus joining hands with Dr. Wallace in his theory of subsidiary "powers of the air." Nineteen hundred years ago "the Great Spirit took pity on the human race and sent the Lord from heaven to reveal to us the love, the pity, the long-suffering" of the God whom man had misunderstood. *In Memoriam*, Wordsworth, and the *Gospel according to John*, are the chief "authorities" cited for this action on the part of the Deity. But for the statement that "while Christ was incarnate he had in some real sense partially forgotten previous existence," Sir Oliver is solely responsible, and what he means is a mystery which he alone can be asked to solve.[1] We are reminded of the undergraduate's conclusion in an answer about some events in the life of Christ which Grant Duff gives in his inimitable *Notes from a Diary*. "These facts are not recorded in the Gospels, and there

(1) A parallel obscurity is supplied in Mr. Chapman's *Introduction to the Pentateuch* (Cambridge University Press, 1911) when commenting on the question whether Jesus, in quoting from those writings, accepted the current belief in their Mosaic authorship. Mr. Chapman suggests that in this and other matters bearing "on Christ's knowledge as Man," "in some manner the Divine Omniscience was held in abeyance, and not translated into the sphere of human action" (p. 304).

is no allusion to them in the Fathers, but they are full detailed by Dr. Farrar."

There is only brief space, and certainly small necessity, for reference to the chapters which are designed "to furnish hints and suggestions for the effective treating of the Old Testament in the light of the doctrine of Evolution."

To Sir Oliver Lodge the miscellaneous writings grouped under that title—writings of unknown or disputed authorship and of unsettled date, writings some of which are compilations and redactions of older documents and incorporations of legendary materials from alien sources—are to be treated as vehicles of "a progressive revelation, embodying the story of the chosen race from whom Messiah was to be born": Sir Oliver incidentally remarks that "we, too, are a chosen people," thus bandying terms about until they are emptied of all the old connotation. There is no reason to suspect that Sir Oliver Lodge shares the delusion of certain eccentrics that the British are descendants of the Ten Lost Tribes; perhaps his remark is but the echo of verses which, like other youths brought up in orthodox beliefs, he may have learned in the Sunday school.

> "I thank the goodness and the grace
> Which on my birth has smiled,
> And made me, in this Christian land,
> A happy English child.
>
> "I was not born, as thousands are,
> Where God is never known,
> Nor taught to pray a useless prayer
> To blocks of wood and stone."

And so on.

Dealing with the mythology in Genesis, he says that the talk about Jehovah walking in the garden of Eden "is a poetical mode of expression for a reality, for surely from a beautiful garden the Deity is not absent," and some pretty verses from T. E. Brown are cited in illustration. Sir Oliver does not tell us what "reality" underlaid the sequel when the perambulating Deity asked why Adam hid himself, but the whole chapter is more suggestive for what it omits than for what it admits.

It is impossible even to summarise the facts confuting the theories which in this paper are, necessarily, presented only in briefest outline. But the *onus probandi* lies on those who advance them. Assumptions abound, but no shred of proof is offered, both authors exemplifying the shrewd axiom of Montaigne that "nothing is so firmly believed as that which is least known."

While admitting that the mystery of origins remains, and that many stages in the process are obscure, there is no justification for the conclusion that what is unsolved is explicable only by assuming a *deus ex machina* acting sporadically and arbitrarily.

The cumulative evidence, ever increasing in volume, as to the fundamental relationship between the inorganic and the organic, thereby witnessing to the unity of the cosmos, is sufficing refutation. The real question at issue raised in both volumes is man's place in the universe, and the assumption that he is its crowning, final product. Those who assign him a special place therein have to reckon with the evidence supplied by comparative anatomy and comparative psychology. The one has demonstrated fundamental identity between the apparatus of animals and man; it has proved "that the structural differences which separate Man from the Gorilla and the Chimpanzee are not so great as those which separate the Gorilla from the lower apes";[1] and that when the blood of these last-named is mixed with human blood the serum of the one destroys the blood-cells of the other, whereas no such effect arises when the blood of man is mixed with that of the anthropoid apes.[2] The other has demonstrated identity of behaviour between the higher animals and man, and shown that "the development of mind in its early stages and in certain directions is revealed most adequately in the animal. Its mind exhibits substantially the same phenomena which the human mind exhibits in its early stages in the child."[3]

So widely-read a man as Sir Oliver Lodge cannot be ignorant of the success which has attended the application of the comparative method to mythology, theology, and ethics. But not a hint of this is breathed in *Reason and Belief*. The reader will close that book without an inkling how far legendary elements enter into the historical portions of the Bible, and how scrutiny of the Christian documents has yielded evidence of the import of barbaric conceptions. The author of the article "Nativity" in the *Encyclopædia Biblica* says of the myth of the Virgin birth that "here we unquestionably enter the circle of pagan ideas, ideas foreign to Judaism," while to such shifts are modern divines of the liberal type of Dr. Sanday put, that that scholar, seeking to account for the silence of Mark about the Incarnation, says that "possibly Luke had a special source of information connected with the court of the Herods, perhaps through Joanna, wife of Chuza, the King's steward."[4] Knowledge of so "momentous" an event has for its source a piece of back-stairs gossip! And travelling backwards to the so-called previsions of a Messiah, on which Sir Oliver lays stress, how will he meet the acute question put by Dr. Reuss in his comment on the oft-quoted and mistranslated

(1) Huxley's *Man's Place in Nature*, p. 103.
(2) *Darwin and Modern Science*, p. 129.
(3) Baldwin, *Story of the Mind*, p. 35.
(4) *Guardian*, February 4th, 1903.

verse in Isaiah (vii., 14) about the child to be born of a "virgin," "What consolation would Ahaz have had if the Prophet had said to him, 'Do not fear these two kings, because in 750 years the Messiah will be born'?"[1]

All that research and inquiry, carried on in that scientific spirit which commends itself to one who is a "student of science," have achieved in the foregoing and many other cases, has no reference in these inchoate and inconclusive pages. At the end of one of the chapters a brief list of books on Hebrew history is given, but these are of pseudo-liberal type, and the more advanced writings of Canon Cheyne, Driver, and their school are named only to be dismissed as too technical for the public for whom Sir Oliver successfully caters. The *Encyclopædia Biblica* is ignored.

It is the same with Ethics. That these are a product of social evolution, and therefore relative in their standards; that sin is, in its essence, an anti-social act; that morals rest not on divine codes, but on human relations, of all this there is never a hint in Sir Oliver's cryptic explanation of the doctrine of the Fall. Job's question, "Who is this that darkeneth counsel with words?" rises to the lips as we close this unsatisfactory book, and hence the warrant for application of the term "obscurantist" to both writers. For in the degree that they affirm the truth of the unproved, and assume that on certain questions the canon is closed, they put a bar upon inquiry, and encourage the ignorant and the timid, the "light half-believers of our casual creeds," in lazy acquiescence.

There is so much to admire in the character, so much to imitate in the example of Dr. Wallace, that animadversion on the retrograde influence of his writings, in the degree that they are speculative, is a thankless task. It is among the romances of Science, like the independent discovery of the planet Neptune by Adams and Leverrier, that when exploring in far-away Ternate, Dr. Wallace should have hit on the identical solution of the problem of the origin of species at which Darwin, working in Cambridge, arrived. And it is to the abiding honour of Dr. Wallace that Darwin's name and fame were permitted to eclipse his own, the one willingly yielding to the other the glory of carrying on a work which culminated in the publication of the *Origin of Species*. For, as Professor Baldwin says in his *Darwin and the Humanities*, "the Darwinian theory might with entire appropriateness have been called Wallaceism." And the Professor fitly dedicates that book to "Alfred Russel Wallace, because, like that of his co-worker, his interest extends to all the humanities." It may be said with truth that his interest is the wider of the two. For throughout his long and strenuous career Dr. Wallace has fought

(1) *Les Prophètes*. I., p. 233 (1876).

unwearyingly for the betterment of the conditions of "the poor also and him that hath no helper." Social and economic questions have largely occupied his pen and time, and if in his latest book his optimism shows itself in the conviction that this is the best of all possible worlds, there are passages in it born of a burning indignation at man's misdeeds towards his fellow-man which arrest approach to the noble ideals in whose ultimate fulfilment Dr. Wallace has a faith that we fain would share. Nor has he ever concealed his rejection of current creeds as having no correspondence to realities, and hence has been under neither obligation nor inclination to attempt to square the Christian scheme with the doctrine of evolution. Therefore, the deeper is the regret that, in the strange obsession of a mind so richly endowed, there should be fostered the one heresy with which science can make no terms—the denial of the unity and unbroken continuity of the totality of phenomena, both psychical and physical. Such deviations from the normal have value as supplying data for the science of mental pathology.

It must be reluctantly admitted that when Sir Oliver Lodge leaves the domain of physics, wherein he is a deservedly supreme authority, for that of theology, he passes to a lower plane. He is by far the greater obscurantist of the two, because he bewilders most where he should be most enlightening. His shambling, hesitating gait makes him no sure-footed guide for the plain wayfarer to follow. He wrests their old, straightforward connotation from such terms as revelation, inspiration, incarnation, so that, meaning anything, they may mean everything. In an *Address to the Society for Psychical Research* (*Proceedings*, Part xxvi., pp. 14–15), Sir Oliver said that in dealing with psychical phenomena a hazy state of mind is better than a mind "keenly awake" and "on the spot," and one has the feeling that this sort of self-hypnotising process has affected much that he has to say about questions which need the exercise of all our wits to grapple with.

But whether it be his *Reason and Belief*, or Dr. Wallace's *World of Life*, their radical defect is the assumption that certitude about the significance of the universe has been reached. Quoting Plotinus, Sir Oliver calls him "the inspired," and in his suggestive little essay on the *Inner Beauty*, Maeterlinck says, "of all the intellects known to me that of Plotinus draws the nearest to the divine." Their united tribute calls to mind a sentence from that philosopher which Sir Oliver and Dr. Wallace, and all of us, may take to heart: "If a man were to inquire of Nature the reason of her creative authority, she would say, Ask me not, but understand in silence."

EDWARD CLODD.