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THE INFLUENCE OF MODERN SCIENCE UPON
RELIGIOUS THOUGHT.

THE passing of our century suggests the reconsideration of a well-worn theme whose importance has not lessened during its closing years of instability and change, a period which some have not hesitated to call the Age of Science. Whether the designation can be justified or not, it at least serves to emphasize the prominent place that science occupies in modern life. But inasmuch as she has not always been so favoured and may indeed be said to have won lasting recognition only within that world age which will become dearer to many of us the more it recedes from us, we feel a certain fitness in regarding her infant relations with the hoar study of theology.

In speaking of modern science I shall limit my references to the so-called natural sciences—botany, zoology, and geology. They are three definite sciences, dealing for the most part with definite facts of which theology has to take cognizance. They certainly make use of hypotheses, but merely in the same degree and for the same purpose that all other sciences do the like. They are not, as some still seem to think, entirely or even largely composed of hypotheses, but of hard, bare facts, between which and the facts of theology some *modus vivendi* has to be established. Geology is the science which investigates the past history of the earth with the view of accounting for its present condition. Geological speculations are as old as Pythagoras, but the foundations of the science were only laid in the end of last and the beginning of the present century. Botany and

zoology, on the other hand, are specially concerned with the morphology, physiology, origin and distribution of plants and animals. These sciences, in their latter-day exactitude, date from not earlier than the middle of the nineteenth century.

I shall refrain from treating of the earlier relations between science and religion, not indeed because this has been done already in a distinctive manner, first by Draper and then by Andrew White, but because, having been largely based on mutual misunderstandings, these unhappy past connexions may with advantage be forgotten, and we are thus left free to concentrate our attention on later interactions that have been more helpful and more abiding. Suffice it to say that these initial relations were characterized by mutual suspicion and antagonism, and that science succeeded in irritating even the most placid religious thinkers into wild reaction; but it was impossible in the nature of things that this attitude should be permanently maintained.

In a recent paper delivered at a Church Congress in Edinburgh, Professor Leebody, traversing similar ground, elected as his method of treatment to examine the principal theological positions, and show how they are either unaffected or modified by scientific thought. But we may gain a more distinct conception of the question by working from the other side, and considering the influence, first, of scientific *conclusions*, and, secondly, of the scientific *method*, upon religious thought. Of these two influences, the second is by far the greater.

I.

The influence of scientific conclusions upon religious thought has obviously been a widening, a broadening one; the theological outlook has been enlarged. Take, for example, the answer to the question, What is man? I do not

suppose that the modern answer to that question differs essentially from that which was furnished fifty years ago. But in saying that man is lord and king of creation, our fathers based their statement on the earlier chapters of Genesis; to-day we rest it further on the evidence of a long evolutionary process of which man is the final outcome and crown. So late as the middle of this century it was customary to pack the varied manifestations of Divine activity into a man's calculation of six thousand years; to-day, on the strength of that same age-long process, we are able to form sublimer conceptions of the doings of Him Who is the same, Whose years fail not, Who is from everlasting to everlasting God.

At the same time it is useless to deny that our expanded view of the physical universe, our enlarged idea of geological time, and the magnificent perspective of life that is intimately associated with these conceptions, have produced a certain subjective reaction within man himself. This varies with the beliefs and temperament of the individual. Amongst many it shows itself in hasty cries for generalizations, for systems of thought that shall be cosmic in their sweep. In others it expresses itself in whispered fears that the foundations of their faith are being sapped and that God is being driven out of His world. The former class may be left to look after itself, but it is the duty of the Christian Church to provide for the mental distress of the others. To return to our previous concrete instance: to many minds it seems that on the evolutionary scheme man is dethroned from his unique place of honour and dominion in the universe of God. But they had wrongly thought of him as absolutely distinct from, and having no relation in origin with, the brute creation around him. They had set man on a pinnacle by himself, had begun with him, and explained everything from him; they had worked from above downwards. The newer method of regarding this replica

of the Divine image works up to man through the rest of creation, and gaining more accurate knowledge at once of his kinship with the lower creatures and of that wherein he is alien to them, it comes in the end to him, recognising in him the anticipated consummation of the whole. And the two views differ in dignity, truth, and service as the Ptolemaic and Copernican theories of the motions of the heavenly bodies.

Besides the scientific conclusions dealing with man's origin and destiny, there are others touching man as he is—the man of to-day—that affect and must affect religious thought even more immediately than those previously cited. I refer to such prominent biological ideas as heredity, environment, and evolution itself.

For example, heredity has raised the problem of the inheritance or non-inheritance of acquired characters—a question upon which the biological world is at present divided. By an acquired character we understand a variation caused by the direct action of external conditions, and we think of it as opposed to a congenital or genetic character by which we understand one that has no apparent relation to external conditions, but is inherent in the constitution of the individual. The question is, Are such acquired characters transmitted or not? Here is a problem whose practical aspects far outweigh in importance those that are theoretical; it touches man in every department of his being—physical, intellectual, and spiritual alike. One man works Sandow's muscle-developing exercises morning and evening; has his son a better chance of becoming a little Hercules? Another, gifted with average mental qualities, deliberately sets himself to the laborious training of his mind till it becomes an organ of more than average ability; will his boys necessarily sit at the top of their class right from the beginning? A third man, forgiven and redeemed, concentrates his energy on the struggle against temptation,

and by the grace of God he meets with such success as is vouchsafed to mortal men ; will he have earthly reward in the consciousness that for his descendants the fight will be easier than for their fellows, that the ideal life will be more within their grasp through his endeavours? Or, to put the matter generally in Francis Galton's words, Is nature stronger than nurture, or nurture than nature? On every side the question presses home ; we look for the answer with expectancy.

Now it is not possible to give a full and satisfactory reply to this great question. The mere fact that there are two considerable camps championing affirmative and negative answers shows that the terms of the problem are as yet but imperfectly understood, and that sufficient data have not been collected upon which to base a solution that is adequate to all the special cases of the problem. It may even be doubted whether the distinction between genetic and acquired characters can be so definitely drawn as has commonly been supposed. Enough has, however, been already achieved in this important fascinating branch of study to suggest that the general and particular problems of heredity are not ultimately insoluble. Day by day the influence of ancestry is becoming more exactly known, as also the influence of various factors in determining the nature of the offspring. And when we remember that since the days of Ezekiel, nay, even of the Decalogue, Scripture has had its definite incontrovertible theory of heredity, we recognise the necessity of watching and acquainting ourselves with the developments of modern science in this connexion. The old Hebrews were at one with us in perceiving the difficulty of reconciling the apparently exclusive principles of the transmission of qualities from parent to child, and of personal responsibility ; but we are nearer the solution than they. Meanwhile, the application in the practical sphere is very obvious, for preacher, physician, and social reformer

are each compelled to note that men are not alike, that the same treatment is not suitable for every case, and that to be effective, reformation, moral and physical, must be, not wholesale, but individual.

And now concerning environment: here we are upon more certain ground. But as the influence of scientific thought with regard to this question is seen in the domain of religious life rather than thought, *i.e.* is practical rather than theoretical, it is beside our purpose to discuss the problem in detail. Environment is one of the best-known factors of evolution, and its effect upon the structure and tendencies of different organisms has been studied with great care. Many data, *e.g.*, have been collected bearing upon the manner in which the physical environment affects the function of organs. Function in its turn affects structure, and changed function and changed structure are alike inherited by offspring and increased from one generation to another.

These facts find direct application in the moral structure and tendencies of man, who is, however, unique amongst the creatures in his power of changing his environment, both physical and moral, even of creating artificial surroundings. The same environment does not produce the same effect upon different organisms, and accordingly we must study the individual and ascertain what environment will best correspond to his particular need. The very subject of this paper, again, assumes the influence of environment; for religious thought is always coloured by the characteristics of the age. And the religious thought of to-day is not exactly that of fifty years ago, but is tinged, nay permeated, by the scientific tendencies of the day. The message never changes; God and love, sin and forgiveness, are as much facts to-day as they were half a century ago. But the presentation of the message changes with the years; our ideas, our conceptions of God and love, of sin

and forgiveness, reflect the tendencies of the age in which we live. They change with the changing environment.

Then there is evolution—"God's way of doing things," as John Fiske describes it. Evolution, which has been the great working hypothesis of biology, is gradually becoming accepted as law not only in that, but in other fields of research. The question at present is simply one of the extent of its application. From it we learn that progress is gradual—"Evolution is continuous, progressive change"; "first the blade, then the ear, after that the full corn in the ear": that is evolution in the individual life. It teaches us, in a way we had not realized before, that the present is the child of the past by direct descent, and that the future has its roots in the present. It makes us regard revolution as unnatural, and it also shows us that reformation may be very slow. It compels us to take a larger view of things—not to estimate the river of life by the little circling eddies, nor yet by the contrary surface currents such as you may often see on mile-broad Asiatic streams, but by the whole flood, grand, full-watered, irresistible, as it sweeps towards its ever-nearing goal. There are, of course, the eddies, for advance in any given direction may not be uniform; there are the backward surface currents, for palæontology tells us of periods of apparent recession in the progress of individual species; there are the rapids, for successive strata sometimes disclose a quick advance in the development of forms under congenial circumstances; there are the pool-like, seemingly motionless tracts, for we have evidence of temporary stagnation in the otherwise progressive movement, of genera that often rested, marking time in the age-long march. Judge not the river by the eddy or the counter current, by the rapid nor by the pool-like tract, but judge it by the whole course. And let us be careful and charitable in our judgment, for already evolution has taught us that we are but poor interpreters of individual events, and have

little ability to determine whether they contribute to progress or not.

In the region of ethics, where we should naturally expect that evolution would exert its maximum influence upon religious thought, we find that the strife of debate is most strenuous. We have already referred to the factors in evolution, and noted the part played by the pressure of environment as one of them. Of the others, these are the most important: use and disuse of parts, natural selection, and sexual selection. The second of these, natural selection, or survival of the fittest, is the essentially Darwinian factor, and, under the influence of its discoverer's name, was for long supposed to be the only one that deserved consideration. To-day it simply takes its place as one of a group of factors, and its paramount importance is only insisted upon by extremists. Now it was the peculiar merit of Prof. Drummond that he asserted the existence and emphasized the importance of still another factor which he called the Struggle for the Life of Others, or Altruism, throwing it into contrast with natural selection or the struggle for individual existence. He traced a certain altruism throughout the brute creation, and tried to show that the evolution of animal life, while not in itself necessarily moral, might still be preparing the way for morality in man. While we may find no difficulty in reading altruism into Christian doctrine, yet every one is conscious of difficulty when he attempts to explain or regard the Darwinian factor in terms that are congruous with his Christian belief. Now if altruism be held to be the sum and substance of morality, then this difficulty must always remain. On the other hand, is it not possible that altruism does not exhaust morality—that self-preservation, self-assertion, self-perfection are just as important and as necessary to ethics as self-surrender, self-abnegation, self-sacrifice? In that case the difficulty disappears, and we

find the counterpart of the natural self-regarding struggle in the higher sphere of the spirit. For self-love in its noblest sense is surely just as much a duty as to show love to our neighbours; after all, life for us resolves into the play—the action and interaction—between the organism and its environment, human or physical. Unless we see to our personal development, we shall have nothing to give to others. Life is a perpetual giving and receiving; he who has nothing to give is dead; he lives most who gives the most and the best. And as we dare not rightly give to others that which involves moral loss or harm to ourselves, so for the very sake of others we are bound to make the most of ourselves. The altruistic motto is, thou shalt love thy neighbour. The individualistic motto is, thou shalt love thyself. The incomparable Christian motto is a choice blend of these two words, “Thou shalt love thy neighbour as thyself.” Here we have law, not merely rational, but Divine.

If, then, all this be true, much that before seemed not only unmoral, but directly contrary to morality, in the evolution of life falls into line as a natural preliminary to man's self-realization, and it was George Romanes' chief count against the theory of a Divine mind in nature that she showed “the apparent absence of that which in man we term morality.” The very struggle for existence is seen to take on an incipiently moral character. At least it contains a germ of good that will in time blossom into self-perfecting moral effort. For self-preservation is an obvious prerequisite of self-realization, which is in no way antagonistic to altruism nor necessarily done away by it. Self has its peremptory claims; they must be satisfied. “The young lions roar after their prey, and seek their meat from God,” Who provides it for them, and not for them alone. The parallel in the Christian life continually represented in and out of Scripture as a struggle—and an expensive

struggle—will naturally suggest itself to every mind ; here also many run and all do not receive the prize. Nay more, it is possible to imagine cases where one man's gain in the Christian life may mean another's loss.

This element of expense, of waste, of pain, is the most difficult to understand. It is a feature of both struggles, of the physical and of the spiritual alike. At the same time it is proper to recognise that pain, waste, and expense are merely incidents connected with, rather than any essential part of, the law of progress. Self-preservation, in its transmutation into self-realization, tends to eliminate strife and suffering. We can indeed imagine a state of matters where each only takes what the other gives, where the self-regarding struggle never enters, where altruism has become the eternal service of One Other, but that is not here.

II.

And now having said thus much on the influence of scientific *conclusions* on some theological conceptions, we may turn to the influence of the scientific *method* in the same sphere. With the development of science has come the development of the scientific spirit. It has given us an ideal of exactness ; it has disciplined our thinking ; and, if I mistake not, this influence has extended to religious thought. In the detailed discussion of any important question, the historic method of consideration is now always adopted : is there not the study of *Dogmen-Geschichte* ? Science has long known the value of the examination of life histories, and theology has applied this method to the elucidation of her organic entities, *i.e.* her dogmas—for if they are not living, they had better be discarded—with conspicuous advantage. Further, it is by the aid of this method that the science of comparative religion has been developed. As a result we now see that all religion, not excepting the religion of revelation, has had a history, that

that history has been continuous, and that its successive forms should be investigated in their mutual relations. And thus we have been led to the recognition of something useful in the world religions, to the recognition of the fact that they had a function to perform, and that they exerted a wonderful influence over men—positions that had not been reached some fifty years ago, views that are the direct outcome of the evolutionary attitude.

Again, the influence of the scientific method is seen in an increased power of recognising the essential relations between cause and effect. May we not admit that theological writers have gained in the knowledge of what a *demonstration* involves? Not that rash and inconsequent conclusions are specially characteristic of religious exposition; but dealing with essential truths as religious thought, whether written or spoken, undoubtedly does, it is peculiarly incumbent upon her votaries to see that she is absolutely free from all liability to such aspersion. With regard to the category itself, there is perhaps a tendency on the part of the scientific man to overestimate its importance, or at least to be intolerant of the suggestion that there may be higher categories. Thus we may imagine the religious man stating his objection to this overweening conception somewhat in the following manner: "Before any attempt is made to bring science and religion together," he may say, "there must be a thorough criticism of categories. Science employs cause and effect, in most part categories that are purely physical. I say 'in most part' because some physiologists¹ have recently come to see that cause and effect are inadequate as final interpretations of relations in and between organic bodies. But be that as it may, you are not going to limit religion or the philosophy of religion to these conceptions of cause and effect. There are higher categories that we begin dimly to perceive, and science halts in the

¹ *Nineteenth Century* for September, 1898: "Vitalism," by John Haldane.

chain of her explanations. Why should she pretend that there are no higher conceptions?" To all of which the true man of science replies that he can but work with such tools as he has, that he is prepared to consider these higher categories when furnished with them, and that, though sceptical, he will not be so dogmatic as to scout the idea of their possible existence.

Again, the present critical spirit is eminently scientific. Conclusions of past generations are questioned, examined, refuted or rehabilitated. Formerly men were well content to accept statements and facts, theories and solutions, on the strength of a great name. For some, it was sufficient to ask, Who believes this? Who says this? And if the answer were satisfactory, they forthwith received the fact or theory into the garner of their mind. To-day that is all changed. No name is too great, no reputation too high, to prevent the statement or hypothesis lying under its shadow from being dragged out into the fierce light of modern expert criticism, and subjected, after microscopic examination, to the scorn or approbation of schools of self-constituted arbiters. Our age no longer pays implicit respect to the authority of authority.

It is not necessary to suppose that the average man assumes this present-day attitude without a pang. Some men are born iconoclasts. They ride roughshod over cherished positions, but it is not given them to know if they have committed any damage, for somehow they never return. They have not inherited any element of belief, but neither do they transmit. Others are less reckless and possibly more sincere. They find themselves *compelled* to question conclusions hoary with age, to doubt which seems like sacrilege. And it is just here that we see the helpfulness of the scientific method whereby they are enabled to preserve an open and impartial attitude towards subjects still under debate. If the judgment is adverse, they discard their cherished idea,

even although sorrowing, for the sake of truth; and if substantiated, they embrace it again with the joy of recovered treasure. Now I suppose that there is possibly no field of human inquiry where a greater mixture of essentials and non-essentials has accumulated than just the general field of religion. And surely there is no sphere where sharper distinction should be drawn between what is known and what is inferred, between what is and what seems to be. The influence of the scientific spirit is seen in the stripping off all round of non-essentials, as well as in the setting of facts in their true relations, in giving them their right value. All this may be easily illustrated in the different branches of theology—in Biblical criticism, in dogmatics, in apologetics, even in Church history. What is important to remember is that the present spirit of inquiry is not a movement to be feared, for, in the language of the unknown writer to the Hebrews, it merely “signifieth the removing of those things that are shaken, as of things that have been made, that those things which are not shaken may remain.” Nay more, I will say that it is a movement to be welcomed, for it is at once helpful and necessary; so much so that even of those regions where its work has been most radical (as *e.g.* Old Testament criticism, where it may leave us as a result with but a portion of a book conforming to our earlier opinions of it), I believe we can say fearlessly and truthfully, though mayhap paradoxically, The half is better, greater than the whole.

The scientific method has likewise brought about an increased power of analysis in that sphere where we are considering its action. In consequence, an increased number of factors—of secondary causes—is looked for as the explanation of phenomena in the religious as in the natural world. In this way we are receding from the standpoint of the old Hebrews, to whom God was *immediately* back of all phenomena. They had no idea of second

causes. In the beginning God created the heavens and the earth, and in their opinion He acted in the same direct manner all along. But, on the other hand, ours is the gain in knowledge of the marvellous ways of His working; and although it is as true for us as for the original recipients of the message of Isaiah lv. that His ways are not as our ways, nor His thoughts as our thoughts, yet we differ from them in our ability to comprehend these ways in some dim manner, and even Kepler-like in sometimes being conscious of thinking His thoughts. On this view science is but the unfolding, the revelation of the thoughts of God which it is our privilege and duty to follow Him in thinking.

On the assumption that God has revealed Himself to men in nature, it would further appear that science is slowly compelling us to read our knowledge of nature into our interpretation of Scripture, in place of the older method whereby nature was interpreted by our conceptions of Scripture. Such a book as Draper's *History of the Conflict between Science and Religion* simply thrives on the disasters that have usually attended the now antiquated method of interpretation. Witness, *e.g.*, the past laboured attempts to demonstrate the perfect adaptation of everything in nature. The most trivial anatomical features of plants and animals were held to be perfect in the sense that they could not be better adapted for the fulfilment of their functions. Such an attitude of mind could not fail to do harm to a certain type of individual. I have heard of a well-known Scotch physician who, Paley-wise, was accustomed to dwell upon the perfect adaptation of the eye, and its glorious testimony to the Creator. His son, who was not inclined to be sympathetic, chanced in the course of his studies upon Helmholtz's observation that after all the eye was but an imperfect optical instrument; from that day what little faith he had completely disappeared. But we are more fortunate; for we have learned that there is no such thing as perfect adapta-

tion amongst organisms, that perfect adaptation means stagnation, since it removes an essential factor in progress.

And in like manner in place of the older teleology we have gained a new one on a nobler and farther-reaching scale. We all know something of past strained attempts to prove immediate design, *e.g.*, in the interrelations of plants and animals, whereby the true function of many of their parts was for long obscured. We also know how it seemed as if the teleological argument had been emasculated by reason of the theory of natural selection, with its demonstration that adaptation might after all be due to chance variations. There is no necessity to attempt to show how this position can be turned by urging that adaptation implies adaptability, that after all natural selection can only work upon prepared material, or by denying the absolutely fortuitous character of variations. What I would rather lay stress on is the line of thought pursued in Illingworth's *Divine Immanence*, where he contends "that the entire material order, with all its infinite complexity, ministers to another and a higher order of being—the spiritual—from which it receives no reciprocal return, and is therefore intended or designed to do so," finding with him the strength of the argument in the width and variety of these ministrations.

In commenting upon the interdependence of anthropological and theological questions, Principal Tulloch has remarked that "a meagre anthropology has for its counterpart a meagre theology." By this you might infer that an individual's or a people's view of man is a criterion of their views upon ultimate questions. How much more is an individual's view of God a criterion of his theology? How much more a nation's conception of God an index of its progress? Who has not shuddered as he acquainted himself with the mediæval popular conceptions of God formed by men who were crassly ignorant of nature—conceptions as,

e.g., of an extra-mundane giant magician, which are far enough removed from New Testament teaching, and yet contrive to linger with us to this day? That they have been largely abandoned, is mainly due to the clarifying and purifying influence at once of science and of her method. Men have got into touch with nature, have learned her order and her laws, and see in them the Divine method of operation. And, as was to be expected, they have formed fresh views of the Masterful Mind that is back of it all, have reached conceptions of Him that are more in keeping with the excellence of His work.

These twin influences have, then, on the whole been negative, but I do not believe that on that account there is any necessary fundamental antagonism between science and religion. True, there have been sufficiently bitter contests waged on the one hand by theologians with little or no conception of the purpose and methods of science; and, on the other hand, by men of science who continually confused theology with religion. But truth is a unity; we may regard her from different sides, but it is impossible that two bodies of true thought can remain in chronic antagonism.

If, now, we shift our viewpoint, and consider all these influences that have been specified as still at work, we gain a fair idea of the value of science and her method for the modern preacher; we see how it is possible for her to continue to exert a beneficial influence upon religious thought. I question whether the merit of such study can be stated with greater terseness than has been done in a recent paper, to which the writer is already indebted, by the Chicago University Professor of Botany in the *American Journal of Theology*. "Contact with the so-called humanities," says John Merle Coulter, "cultivates the power of appreciation, the ability to recognise what is best in human thought and conduct. The power of appreciation involves

both the injection of self and an artificial standard. Self-injection means the ability to read between the lines, to put into them a meaning which is suggested rather than stated, and which is in the main a subjective result, dependent upon the individual and not upon inherent truth. The standard of appreciation for most persons is conventional, for a few individuals in all cases subject to wide variation. This simply means that there is no standard of appreciation fixed in the nature of things, and that this process does not necessarily bring the mind into contact with essential truth. The pulpit has largely developed the ability to read between the lines, and self-injection is a conspicuous feature of pulpit utterances. This power is admirable, and must be cultivated, but runs to dangerous extremes unless checked by a complementary power. The complement to the habit of self-injection is most definitely developed by scientific training. In obtaining results from the study of the phenomena of science, their value is in proportion to the power of self-elimination possessed by the trained observer. Any self-injection introduces error and vitiates the result. The standard in this case is not a conventional or variable one, but is absolute truth.

“Both kinds of training are essential to those who would attack the largest problems, and who would wield the greatest influence. Unchecked self-injection may lead to mysticism, unrelieved self-elimination may lead to a rejection of everything that is not material. The best training has been obtained when these powers are well balanced.” And then on the ground that reading about science is not scientific training any more than reading about righteousness is training in righteousness, he goes so far, following a suggestion of Principal Harper’s, as to plead indirectly for definite scientific instruction in theological seminaries. And if science has exerted the manifold influence upon religious thought that we have just been considering—if she

has helped to clarify and purify it, if she has brought about increased power in recognising the essential relation between cause and effect, if she has brought about increased power of analysis, and helped to strip off non-essentials, and even if she has failed in her chief mission of imparting enlarged power of synthesis, of imparting some synthetic impulse, I hold that she can still effect the same influence to the advantage of our individual religious thinking.

It has just been suggested that science has exerted no synthetic influence upon the field of religious thought. The slow accumulation of data, the year-long observations of the specialist, the tedious reiterated attempts of the experimenter, are all conducted in the hope that they will lead to the discovery of law. The range and diversity of data in the sphere of religion is appalling, and calls for the highest development of the synthetic power to grapple with them. We have only to look around, not only in theology, but in economics, socialism, and the other kindred studies that concern themselves with man, to see how lack of such training, resulting in the foundation of theories either upon an insufficient number of data or on data that have no essential relation to the conclusions, has given rise, daily gives rise, to the most ephemeral of schemes. How then is science related to religion in this respect? Do the generalizations of the former allow for the inclusion of the latter? Huxley remarks somewhere that the lion will never lie down with the lamb unless the lamb be inside the lion. But is this the probable relation of the two? Or is there a higher synthesis that we may expect to include them both? It is professedly difficult to arrive at any solution of this very intricate question. The time has not yet arrived for that solution. Huxley's is, at any rate, impossible, at least for those who believe in the final dominion of spirit. But in an ancient collect I find these words: "Præsta, quæsumus, omnipotens Deus: ut semper rationabilia meditantes, quæ

tibi sunt placita, et dictis exsequamur et factis." "Semper rationabilia meditantés"—not merely intellectual contemplation, but that practical meditation of practical men, in virtue of which they will look down their microscope religiously, will chip their stone religiously, and will, even when repeating to themselves some well-known, well-established formula, such as The sum of the angles of a triangle is equal to two right angles, be able at the same time devoutly to say, "O God, I am thinking Thy thoughts." To such men every new fact disclosed by biology will simply be a new disclosure of the mind of the Logos,—that is, of Christ.

But this is not as yet, and mainly for one reason. Writing to commercial Corinthians St. Paul draws the distinction between things that are seen—things temporal, and things that are not seen—things eternal; or to express it in terms that will suit our purpose better, between that which is external, and that which lies within or behind. Now, of course, science says that the things that are seen, that which is external, are the real things; it is part of her working hypothesis. Religious thought, with deeper penetration, sees in them naught but things shadowy and fugitive, the temporary vehicles, it may be, of the spiritual which is behind and within. As long as science holds uncompromisingly to her limited view, it is obvious that she can supply no leading thought in religion, which, where it is possible, is the highest honour open to any of the branches of human knowledge. And this renders all the more necessary that spirit of humility which is found in all truly scientific men—though not, unfortunately, amongst their satellites—a spirit fitly expressed in these familiar lines:

Our little systems have their day,
 They have their day and cease to be,
 They are but broken lights of Thee,
 And Thou, O Lord, art more than they.

J. Y. SIMPSON.