Science, a Friend of Religion.

A SMALL friend of mine, aged four, was recently presented by a kindly acquaintance with some small leaden soldiers. Noticing that he looked at them in a rather curious way the donor asked, "Don't you like toy soldiers, Richard?" To which he replied, holding one of them in his hand: "Well, I like these little men; but they are enemies, you know!"

It can hardly be denied that religious people in general have been prone to regard the scientist as an enemy rather than as a man with whom they might co-operate. They have appreciated the value of applied science in its practical inventions and discoveries. But in the realm of religion they have not infrequently had an uneasy sense that this great new phenomenon, science, boded danger and must be watched with jealous suspicion. The reasons for this attitude need not be elaborated, for they are sufficiently obvious, besides being at least partially justified. The first is the undiscriminating enthusiasm which has sometimes led scientists and others to exalt science at the expense of religion, and still causes some of them to behave as if the latter were nothing but an exploded superstition destined speedily to be discarded. The second reason is that the advance of scientific knowledge has indeed challenged so many beliefs popularly, if erroneously, supposed to be fundamental to religion as to encourage the idea that its action in religious matters is almost if not entirely negative and destructive.

There is therefore room for some attempt to view science under a different and more constructive aspect, and to think of the scientist not as necessarily an enemy of religion but as a man who has a contribution to make to religious thought and practice. The scientist is, after all, only human; and as such he has as great a stake as the rest of mankind in the eternal truths of religion. The meaning and worth of his life and work depend, no less than those of other people, upon realities which lie beyond the power of science to prove or disprove. And, therefore, although his attitude to current religion may be critical, it is the more important that we should endeavour to understand what it is that excites his criticism, and what positive contribution he has to offer as a substitute for what he condemns. Further, the proper persons to speak of the contribution of

science to religion are those who are conscious of having benefited by that contribution, and preferably those who are not scientists. The views and claims of scientists about religion have been widely proclaimed; there is a call now for some testimony from the religious side as to what—if anything—science has done to help men in their quest for God.

In speaking of the contributions of science to religion, I would put first in order, if not in importance, the fact that *science has revealed mankind to be living in a vastly bigger and more wonderful universe* than had formerly been supposed. The telescope and the microscope—to say nothing of any other scientific apparatus—have between them revolutionized our conceptions of the world in which we live. It is true that our minds cannot fully grasp the astounding rows of figures with which physicists, geologists and astronomers make play. Nobody really knows what it means to say that "travelling at the rate of 180,000 miles a second" the light of certain nebulae takes 140 million years to reach this earth; or that the age of the universe is 200 million million years; or that atoms are measurable by 100 millionths of an inch. One questions whether, in this respect, scientists themselves are any better off than the rest of mankind. Such figures are, after all, only counters and tokens as it were, and are not meant to be completely understood. But, in so far as they serve to represent the immense periods of time during which the universe has been evolving, and the colossal distances and velocities which belong to its constitution, their meaning is sufficiently plain to fill the least sensitive of men with awe and wonder. Whatever else they mean, they mean at least this: that the drama of human life is being enacted on a stage of inconceivable grandeur, and one which both renders for ever impossible former views of the universe and also must modify our conceptions of the Being who upholds it by the word of His power. There is a story told of an astronomer who had been showing a friend some of the wonders of the heavens through a telescope, and as the observer moved away from the instrument he said: "Well, anyhow, that does away with a six-foot God!" The universe which science reveals may not be as neat and tidy, nor as easily comprehensible, as that which an ingenious bishop once calculated to have been created at half-past nine in the morning of October 25th, 4004 B.C. But it is infinitely more grand and awe-inspiring; and to the religious mind it is simply inconceivable that such a universe, with its marvellous wealth of animate and inanimate being, could ever have come into existence, were there not above, as well as within it, a Creative Mind, whose power and patience, whose skill and wisdom are beyond all

human effort to understand or describe. In other words, science has interpreted afresh the majesty of God, and has given a new and more wonderful meaning to the words of one of the most ancient of religious poets: "Hast thou not known? Hast thou not heard? that the everlasting God, the Lord, fainteth not neither is weary. There is no searching of His understanding."

The religious man is indebted to the scientist not merely for a new vision of the splendour of the Universe and its Maker, but also for *a new instrument with which to cope with his own special problems in the realm of religious truth and experience.* Professor Whitehead says somewhere that the greatest invention of the nineteenth century was the invention of the method of invention. We may paraphrase this and say, that the most significant of all the discoveries of science has been the discovery of a new method of making discoveries. Behind all the amazing scientific development of our time there lies, in fact, a simple but profound technique, which may be concisely described in two words: "Facts first." No matter what may be the material with which the scientist is called upon to deal, his characteristic method of apprehending it is always the same. He moves from facts to theories rather than from theories to facts; or—since no one can approach even the simplest fact without some theory in his mind—perhaps we had better say, he tries to frame his theories at the bidding of the facts, and not *vice versa.* Whether he be a chemist studying the properties of gases, or an astronomer watching the disposition of the stars in space, or a psychologist probing the mind of a patient, the first question to him is: "What are the facts?" The facts, when he discovers them, may be pleasant or unpleasant; they may be familiar or startlingly new; they may confirm accepted theories or refute them; but scientific method insists that, whatever their nature, the facts must be allowed to control the course of the investigation if fruitful and valuable results are to be expected.

Now it would be absurd to suggest that religious men had never faced facts until they were forced to do so by science. It was a very early religious writer who said: "We have not followed cunningly devised fables when we made known unto you the power and coming of our Lord Jesus Christ, but were eyewitnesses of His majesty." Nevertheless, it cannot be denied that some of the most far-reaching developments in religious life to-day have had their humble beginnings in nothing more mysterious than the faithful application of this familiar scientific principle. Out of numerous illustrations we may take two. Has it been generally realised by religious people that we are indebted

to the scientific approach to the Bible for giving to our generation a new and more vivid picture of Jesus Christ? Until the rise of Biblical criticism the phrase "The Jesus of History," which is now so familiar, would have been almost unintelligible. Christian people did not think of Jesus Christ as being "in history" at all, in the usual sense of that word. He was the Divine object of their faith and worship, who had come down into history from outside it, and it would have seemed to many of them almost blasphemous to speak of His "personality" as we do to-day. The fact of the matter is that men to-day may, if they will, know more of Jesus of Nazareth in all His uniqueness as a living Person in history than any other body of Christian people have done since the beginning. Never has the history of the people of Israel up to the time of Christ been better known than it is to-day; never before have we been able to see Jesus, as we may to-day, in the setting of the ideas and practices of His own time, and thus receive fresh guidance in judging what are the vital and permanent elements in the tradition that has come down to us. The time in which He lived has been reconstructed under our very eyes. And for all this and much more, through which the Person of Jesus has become more real to men, we have to thank a multitude of scholars who have applied to the study of the Bible and other relevant material a technique which was first made familiar through science.

A similar thing is true of the story of the Christian Church. The history and claims of ecclesiastical organisations of all kinds have been submitted during the last few years to scientific scrutiny of the most searching kind. The time is rapidly passing when any Church can expect support from reflective people merely on the ground of assertions that its ministry derives in unbroken succession from the apostles, or that its organisation was settled in the first century by Divine appointment, or that its peculiar rites are essential to salvation. All such claims have inevitably to face to-day the question: "What are the facts?" And, did men but realise it, there lies such power in that simple but drastic enquiry that it is rapidly changing the whole substance of ecclesiastical controversy, and making possible between Christians a new fellowship in the truth. We owe to the scientist, I say, a method of handling our religious problems which has already re-vitalised large areas of faith. And if that be the case, it will be found to be because this appeal to the facts turns out, on examination, to be something more than a mere instrument or method. It is in the end a spirit—rather, a *faith* of a very high order. For it presupposes that, in endeavouring to come face to face with facts in any sphere we

are really harking back to the source of all authority and are seeking to be guided by the God of truth who utters His mind and will through history.

So we come finally to the greatest claim of all which science makes upon sympathetic understanding and appreciation. For *the ultimate significance of science is only revealed when we see it, not merely as an effective method of gaining command over the raw material of life, but as an attitude of mind towards life itself—a spirit in which to live.* There are three qualities at least which belong to this attitude or spirit which is characteristic of science. The first is that of enquiry—an insatiable curiosity about the nature of the universe and about the creatures who inhabit it. Inquiry is to the scientist the very breath of life. Give him but a problem to solve and he pursues it with the zest of a lover. It matters little to him that the quest may be long and arduous; or that its practical usefulness may be negligible. It is not the goal but the search which fascinates him. It is related of Charles Darwin that, out of a desire to understand the structure and functions of a peculiar kind of barnacle, he engaged upon an investigation which he expected to complete in a few weeks. The enquiry was ultimately finished at the end of eight years. If the scientist thus lives in the spirit of questioning, the reason is not because he is at bottom a sceptic, but rather because he is a somewhat obstinate kind of believer; that is to say, he believes that all that men have found out already is as nothing compared with what is waiting to be revealed, and that ultimately all reality will be found to be rational through and through. Thus the effort to understand and know more about life in its varying aspects wears for him the character of a sacred obligation which he may not repudiate save at the sacrifice of his own integrity. It follows naturally from this that the scientific temper *at its best* is essentially experimental and undogmatic. The qualification is important, for the scientific spirit is so potent that its first effect upon the mind is apt to be to make it strangely positive and opinionated. True scientific research, however, is a voyage of discovery into uncharted seas; and those who set out upon it must keep their minds open and never be too proud to learn. Someone has said, "A clash of doctrines to a scientist is not a disaster but an opportunity." It reveals unsuspected possibilities waiting to be further explored, and lays upon the experimenter the duty of further enquiry. Science aims at impartiality. "Every individual science," says a great physicist, "sets about its task by the explicit renunciation of the egocentric and anthropocentric standpoint." In other words, the search for truth can only advance as men seek to put on one side their personal pre-

dilections and to follow the truth whithersoever it may lead them.

It must be apparent by this time that in discussing these various qualities of the scientific temper we have really been describing in action nothing less than *the passion for Truth.* This is what the passion for Truth means: to follow Truth eagerly, humbly, and with single-minded devotion, no matter what the consequences to oneself may be. And it is perhaps the greatest contribution of science to religion that it helps to keep alive the reverence for Truth. No one can say that religion can afford to neglect or despise such a contribution as that. One of the greatest and most persistent temptations of the religious life is to eliminate the element of uncertainty in its faith. The average institutional religionist—says Baron von Hügel in his Essays—"finds it all but impossible not to tidy up reality." The tendency is always there; to reduce faith to a docile assent to some time-honoured statement of beliefs; to scale down the cost at which living religious experience can be gained; to conserve and defend formulae and institutions as if the whole of Truth had been successfully captured and embalmed therein. A good and devout elder said to John Oman, as a youth of seventeen, in Edinburgh: "Granted that Robertson Smith is right, if it is truth it is dangerous truth, and he has no right, as a professor of the Church, to upset the Church by declaring it." Dr. Oman says that this attitude affected him as a call to his own life's work. We may take that as a sign that science has a mission of God to perform in breaking up the assumptions and dogmatisms to which religious people are prone to cling, and in thrusting us forth afresh upon the quest for religious reality. Matthew Arnold says of Wordsworth: "He was a priest to us all of the wonder and bloom of the world." So might we say of the work of the true scientist: He is a priest to us all; a priest who by the passionate devotion and disinterestedness with which he serves Truth puts many of us to shame and illumines afresh the wonder of Life, the majesty and beauty of Truth, and the glory of loyal discipleship.

What is my purpose in thus pleading that religious people should recognise science as a friend of religion? Certainly not to suggest that science can ever take the place of religion in the life of mankind. But simply to urge that they need one another. A reconciliation between them is vitally necessary, first of all, for the sake of science. We have already had sufficient experience of science and its fruits to realise that these may be a curse as well as a blessing to mankind, and that science is of itself powerless to choose what its ultimate issue shall be. Civilisation itself stands to be destroyed by the very power

which, rightly employed, might be its salvation. The only thing which can ultimately save science from destroying itself and the race along with it is that it should be brought under the control of a greater than itself and be dedicated to the glory of God and the service of His purpose in the world.

But a reconcilation between science and religion is needed too for the sake of religion. It is said that the German scientist who translated Darwin's "Origin of Species" expressed his sense of the epoch-making character of the book by prefacing his translation with these words: "How will it be with you, dear reader, after you have read this book?" Whether we like it or no, this mighty movement of the human spirit to which we give the name "science" is changing the mental and spiritual landscape of the whole world; and the future of religion, for individuals and churches alike, depends upon the way in which they react to it. The Christian Church can only survive as it will take its life in its hands—as often before in its long history—and go out to meet the scientific movement with the conviction that it is of God, and must be faced not as an enemy but as at least a potential friend.

We must not be blind to the cost of such an attitude. There is that in the scientific temper and outlook which by its very nature can never be completely assimilated by religion and which must remain as a perpetual challenge to faith. That is, perhaps, the function designed for it by God. But nobody who has followed me thus far can doubt that, taken as a whole, science represents nothing less than a movement of the Spirit of God within humanity, and as such we cannot but pray that its challenging vivifying power should be felt to the remotest recesses of all religious life. "The desire and pursuit of Truth," says Dr. Hort, "is an essential part of a holy worship." It is for religious people to show that they feel no hostility but only friendship towards all who seek to offer to God that kind of worship.

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