known God', latent in all other gods, 'ignorantly worshipped'. The cares of building a self-contained 'Christian city' on earth, with its inevitable bulwarks and bastions, and in which even Christian missions have sometimes assumed the character of colonisations, have perhaps distracted us from our world mission and obscured our view of Christianity's own responsibility to socalled other religions-a mission not to destroy, but to fulfil. For if the acquaintance with religions is a solvent of religion, it is no less true that Christian religion dissolves the multiplicity of religions. St Augustine said that the coming of Christ, the divine word of healing in human flesh, spelt the end of religions-in the plural; for they all unknowingly sought what Christ embodies, and he fulfils them all. The Christian can meet our present predicament only by reaffirming that ancient faith which should be his own, but perhaps with the better equipment which the scientific study of religions offers him.

SCIENCE AND THE TRINITY

CECILY HASTINGS

THEN we try to make contact, for the purpose of teaching and explaining the faith, with the pagan mind of our generation, something we might call 'scientific mindedness' at once arises as a barrier. (The inverted commas are strictly necessary.) We are not speaking of the truly scientific attitude but of a by-product, to be found both among scientists and among those several removes away from any field of scientific research. I do not mean by 'scientific mindedness' simply the attitude that demands tangible proof for every assertion made. Neither do I mean actual knowledge of recent scientific discoveries and theories, requiring particular answers to particular objections. The difficulty is really one of basic mental patterns. The more we are pre-occupied, as Christians, with the truths of revelation, the more these truths will determine the shape of our thinking and our approach to all questions, not only doctrinal ones. The unbeliever is not, of course, so shaped in his mind. But this naturally does not mean that his mind has no determinate shape. The basic mental patterns of the unbelievers of our day are, as we all know, to a large extent laid down by ideas stemming from the scientific discoveries and theories of the last hundred years. It does not matter that a particular individual has perhaps read very little, even in popular works, of what these discoveries and theories actually are. He absorbs his mental outlook from them none the less.

But the fact that his actual knowledge is probably slight deprives him of the riches of the scientific outlook, its humility before facts and its acute realisation of its own limitations, and leaves him with illegitimate by-products—a vague assumption of materialism, a vague conviction of the near-omniscience and nearomnipotence of 'scientists', and a vague certainty that practically every teaching that has not come directly from 'the scientists' has at some time, somehow, been discredited and disproved by them. Against this background we try to trace the truths of revelation. It is certainly difficult. But it is no use simply to deplore the wrong that has been done to the minds of our contemporaries, nor to think that we can wait until some way has been found of producing a general mentality more receptive of the faith before starting to teach it. The elements of sheer humanity are still there to be appealed to, and this we must do, by-passing, we might say, the patterns of thought that have been imposed. But we must also face the fact that the mentality those patterns have formed is the mentality to which we must speak.

It is an obvious course, for anyone much engaged in such teaching, to try to expose his mind to those same influences that have formed the minds of his hearers: not merely to have recourse to Catholic expositions, explanations and perhaps 'refutations' of current scientific ideas, but to read the kind of popular science which takes the modern mental climate for granted, caters for it and builds it up. I am speaking, of course, of those who are not themselves expert in any branch of scientific knowledge. But are we, to whom this applies, wrong to look for something much more than this from Catholics who *are* scientific experts? To be merely *in touch* with the modern climate of opinion is something we ought all to be able to achieve. Is there nothing that can be done at the dynamic centre which generates that mental atmosphere? It seems that it should be possible to make the by-product, in mental patterns, of genuine scientific discovery, something

receptive to the faith instead of hardened against it. The decision surely lies in the attitude of scientists towards scientific truth. I know that in fact there is no lack of effort on the part of Catholics and other Christians who are scientists to remove the idea that 'science' and 'religion' are mutually contradictory. But it is apt to be restricted to insisting on a frontier between different departments of truth and reiterating that the departments do not encroach upon each other. One must recognise that different sciences -e.g. physics, metaphysics, theology-have different fields. But restricting one's solution of the difficulty only to this distinction sometimes seems to lead to a policy of despair in the matter of breaking down the barrier referred to. One can find oneself saying, for instance, that the science of anthropology and the book of Genesis, because they are 'talking about different things', have 'nothing to do with each other'. Since, to one's questioner, 'science' is apt to be a synonym for 'reality', this means that Christian doctrine has 'nothing to do with reality'.

I think there is something wrong with this 'frontier' policy. By way of making myself clearer, I will refer to an article published in *La Vie Intellectuelle* last October by a distinguished Catholic mathematician, M. P. Germain. It must be recognised, of course, that no Catholic scientist speaks for the rest, but only for himself. But it may be that the ideas expressed in this article are fairly general, and if so it may be some contribution to an understanding between Catholic scientists and their non-scientific brethren if I point out the phrases in it which caused me some dismay and disappointment.

My difficulties occurred at the very beginning of the author's discussion:

It is quite clear that science is constituted and can only be constituted by making abstraction of God and the things of God; or in other words, as has been said, it is bound by a methodological statute of atheism.

After stressing that this statute does not, of course, imply atheistic *belief*, M. Germain points out the inevitable psychological effects on a scientific worker of the fact that 'most of his activity, efforts and reflection develop in a context from which God must be strictly absent'.

It is not quite clear to me that science must be so constituted. I do not understand how atheism, being false, can have a legitimate place, even a methodological one, anywhere. And it seems to me that God must be strictly present to the activity, efforts, reflections and context of the scientific worker, in order that all these shall exist.

As I understand it, the argument is something like this (not so expressed by M. Germain): 'I must assume the uniformity of nature. There must be no miracles in my laboratory. Therefore, I must assume that God is absent from my laboratory.' I perfectly see the necessity for the first absence (though I do not see what anyone can do to ensure it, if that were necessary!), but I do not see how the second follows from it. In fact, it seems to me to express and assume one of the most wrong-headed of the mental patterns I have been speaking of. This is the picture of the world as sufficient to itself, and God, if any mental provision is made for God, as someone whose only possible relationship with the world, at the stage it has now reached, would be in the order of extraordinary things: divine conjuring tricks of one kind or another would be the only possible evidence, indeed the only possible form, of divine activity in the world. Anything else would be purely natural' and therefore not divine action. 1 But what a scientist is in fact studying-and if he is a convinced atheist, this still remains true—is, throughout, divine activity. In fact, M. Germain clearly recognises this when he closes his article by quoting Count Begouen, from an earlier Vie Intellectuelle:

For those who are alive when this long period of hope is ended, it will be enough just to see that it is not in vain that they have been torn between the two manifestations of the true God, science and their faith.

Since that is what science is, why should it be doomed to methodological atheism?

But, it may be said, for practical purposes, what a Catholic

I remember a typical example of this in a lecture by J. B. S. Haldane to the Oxford University Rationalist Society a few years ago. Contemptuously dismissing the idea, which he quoted from C. S. Lewis, that the planets are moved by angelic spirits, Professor Haldane smilingly admitted that there is still a small margin of error in the mathematical calculations of the movements of (I think) the planet Neptune, and of course if Mr Lewis *liked* to think that these small irregularities were produced by a push from an angel... The idea that it would be precisely the predictable motions of the planets that would have their source in spiritual activity had obviously not occurred to him.

scientist will do, in the course of his researches, remains precisely the same in all essentials as what an atheist scientist will do. First, is this true? And second, does it justify us in speaking of a 'methodological statute of atheism' binding on the Christian? Might it not equally well be a methodological statute of theism binding on the atheist?

First, is it true? The assertion that what a scientist does is unaffected by what he believes seems to rest on the assumption that 'what he does' means merely 'what he can be observed to be doing'. The most careful observer watching a scientist in his laboratory might be quite unable to tell from his actions whether he were a Catholic, an atheist, or something else. But if he were in fact consciously, in humility, studying the effects of the creative and conserving power of the Blessed Trinity manifest in some particular form of matter, he would be, in fact, 'doing the truth'. Whereas if he were studying it in the conviction that it was a piece of a causeless, reasonless universe that just happens to be and is itself the ultimate fact, he would be, unconsciously, acting a lie. In other words, two such men would not be doing the same thing at all, though the results of their researches as recorded for the world's benefit might be precisely the same. But ultimately, perhaps, even such results might not be precisely the same. Is it too much to hope that if some scientists are consciously reading the universe as the work of God, that universe may possibly become again, even to the man-in-the-street, 'God's book of nature'? 'See how the skies proclaim God's glory, how the vault of heaven betrays his craftsmanship! Each day echoes its secret to the next, each night passes on to the next its revelation of knowledge; no word, no accent of theirs that does not make itself heard, till their utterance fills every land, till their message reaches the ends of the world.' (Ps. xviii, 1-5.) The universe finds a voice to reach the ends of the world in those men who have the expert knowledge to read its revelation of knowledge aright: and if the message is rightly delivered, its content is the glory of God and his craftsmanship. It is not a question of seeking to impose 'edifying' or apologetically useful interpretations on natural phenomena; it is merely a question of proclaiming them faithfully with an everpresent awareness of what in fact they are.

That anything is—the scientist, his telescope and the stars beyond it, the living cells under his microscope and the microscope

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itself-that any of this exists, that it has being, is the gift of God. That this is so, we know. The realisation that it must be so is a difficult, mind-stretching problem whose solution can never be adequately expressed. There seems a correspondence between this aspect of being and God the Father, Deus absconditus, the Source in the Godhead. That anything is, that all these things exist, is something which, in their worship of Him Who Is, scientists, like the rest of us, must at once take for granted and wonder at. It is a dark and impenetrable, because irreducible, fact. In contrast, there seems something more transparent in that aspect of being with which I suppose scientists are particularly concerned-how it can be understood, how it works, how it is inter-related. Here it is natural to think chiefly of God the Son, the Word, the Wisdom of God-'Bold is her sweep from world's end to world's end, and everywhere her gracious ordering manifests itself' (Wisdom 8, 1). It is only possible for any scientist, however atheist, to enter into an intelligent relationship with the universe at all because that universe is the work of Divine Wisdom-because the day has a secret to echo, and the night a revelation of knowledge. It is most reasonable to say that science is bound by a methodological statute of theism. The most atheist scientist is in fact assuming that what he is studying makes ascertainable, unself-contradictory sense to his questioning reason. But, strangely enough, it seems to be assumed that the more intrinsic to the universe the work of Wisdom can be found to be, the less reason there can be to regard it as the work of Wisdom. If we could regard the motion of the planets as something rather awkwardly imposed upon them, implied Bertrand Russell in Why I am not a Christian, it would be reasonable to regard it as the work of Divine Wisdom. But when we come to learn more of their gracious ordering, and more complex Einsteinian formulae can represent it to us more adequately in its internal operation, then, oddly and inexplicably, we may recognise it as Divine Wisdom no longer. But there is no reason why Catholic scientists should feel bound to accept three-quarters or so of such assumptions, merely making some reservations regarding other departments of knowledge. They have been introduced by the Word made flesh into the life of the eternal Trinity, creator of all into which they enquire. Despite its 'pre-scientific' imagery, the invitation of the Word in the eighth chapter of Proverbs seems to be especially for

them: 'I was there when he built the heavens, when he fenced in the waters . . . when he poised the foundations of the world. I was at his side, a master-workman, my delight increasing with each day, as I made play before him all the while: made play in the world of dust, with the sons of Adam for my play-fellows.' Every advance in scientific knowledge is the catching and throwing of an invisible ball passing to and fro between the scientific sons of Adam and God the Creator. Must the game be played as though one of the players were not there?

The Holy Spirit, we are taught, is the Love of the Father and the Son. So I think it is not fanciful to suppose that his presence, for the scientist, must be most visible at the point where scientific knowledge breaks into practical action-as we must hope and pray, into practical charity. If the initial response to the sheer fact of the universe is sheer adoration of God the Creator, and if its rational interpretation is an act of worship of God the Word, then the fruit of such study will be a reflection in action of God who is Love. It is the laying of violently arrogant and impatient hands upon the creation which turns to destruction. General Farrell, one of the witnesses of 'Operation Trinity' (the first atomic explosion, in New Mexico) who on that occasion, as they waited, prayed as he had never prayed before, has recorded the sense that an insult had been offered to God, a power arrogated that was his alone. The power that was thus stolen from heaven and now lurks as fear in the minds of us who have stolen it might have been received, as a gift, upon our knees, and used in the service of charity.

'Send forth thy Spirit and they shall be created, and thou shalt renew the face of the earth.' Sometimes the achievements of applied science irresistibly evoke this verse. Sometimes they hideously contradict it. The Holy Spirit is *dulce refrigerium*. 'Operation Trinity' led before long to the moment when a child saw coming up the road towards him what looked like a procession of roast chickens, only that they kept crying out for water.²

If its fruit in action is to be an operation of love, science must not merely leave *room* for an acknowledgement of God's—Love's —existence. It must be throughout itself that acknowledgement. And only if it is so constituted—to return to our starting-point will the minds it conditions be naturally receptive to God's 2 One of the descriptions in *We of Nagasaki*. (Gollancz.) revelation. The truth, however inadequately expressed here, is that the Trinity *is* present in and to every aspect and object of the scientist's study. And I am convinced that until those scientists who know this are working consciously in the full light of that knowledge, so that, without any straining or artificial introduction, it invades and informs the scientific mentality of our day, there will be a great wall between those who are trying to teach the faith and the minds of our contemporaries.



THE BLACK AND THE RED

A. C. F. BEALES

R BLANSHARD has been at it again. This time he appears in the arena astride not one adversary but two: the twin steeds of the Vatican and the Kremlin, the Black International and the Red. His thesis is that there is a triangular war going on, between Communism and Democracy and Catholic power (he implies some distinction between Catholic power, which is his chosen concern, and Catholicism, which quite evidently is not)—a struggle in which each of the three is fighting the other two simultaneously, and in which there is room for only one ultimate victor.

But though in this book¹ there are two horses in the ring, where in *Freedom and Catholic Power* there was one, it is really the same turn all over again. The net result is but a deeper denigration of the Catholic Church, by (this time) comparing it for three hundred pages with a Marxist institution whose blackness none of his readers except Communists will any longer doubt. The parallel is of course fascinating (there is never a dull moment): *provided* you are content for it to have extent without depth—for he never addresses himself to the problem of *why*, fundamentally, the Church execrates Atheistic Communism, nor *vice versa*. To him they are both primarily power machines, and anti-majorityrule. It is as easy as that. And parlous plausible.

1. Communism, Democracy and Catholic Power. By Paul Blanshard. (Cape; 18s.)