

## Is there a Problem of Science and Religion?<sup>12</sup>

by  
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On the face of it the answer to this question would seem to be ‘Well, sometimes there is and sometimes there isn’t, and the present time is one of the times when there isn’t.’ About 400 years ago there was a lot of pother about the new astronomy – the abandonment of the view that the earth is the centre of the Universe – but that died down in due course and things were pretty peaceful until last century, when there was a new pack of trouble about the theory of evolution, descent of man from monkeys and all that, but now that’s all over but the shouting, and indeed there’s not even very much shouting, and peace reigns again on this front. The Church has its enemies still, and individual believers have their difficulties, but by and large it’s not from Science but from other quarters that these troubles our come.

I wonder how accurate this picture is. That’s one of the things I want to look into tonight, and it will involve going into a bit of history. And after this bit of history, I’ll offer a few rather general and rather negative reflections on the subject.

The bit of history I want to look into chiefly is the last {2} lull before the present one – I mean the last low<sup>3</sup> period of comparative peace, the period between Copernicus and Darwin, and especially what you might call the height of this period, the 18<sup>th</sup> century in England. The big shock that this epoch started with was, as I have said, the shock of discovering that the earth was not the centre of the universe, and that the universe was an immeasurably bigger place than men had taken it for. This was a shock partly because the idea of the earth as the physical centre of the universe was tied up, at least emotionally and psychologically, with the idea of man, the earth’s chief inhabitant, as being of central importance in God’s eyes. There is no logical connection between these two points – there is not the least reason why moral importance shouldn’t go along with physical insignificance. As a matter of fact, nobody has put this point better than someone who was not a Christian at all, though his younger brother is now archbishop of York – I mean the Cambridge philosopher F.P. Ramsey, who died in 1930 at the age of 26<sup>4</sup>. In a paper which he read to a discussion society in 1925 he says this:<sup>5</sup> - “Where I seem to differ from some of my friends ..... is

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<sup>1</sup> Edited by Martin Prior, Jørgen Albretsen, David Jakobsen and Peter Øhrstrøm. The original MS is kept in the Prior collection at Bodleian Library, Oxford, Box 6.

<sup>2</sup> Some editorial notes: The text has not been dated. But it follows from the reference to Michael Ramsey as archbishop of York that it was written sometime during the period 1956-1961. The original page numbers have been put in {...}. All underlinings in the text are Prior’s. There are no footnotes by Prior in this text. All notes have been produced by the editors.

<sup>3</sup> The word ‘low’ seems be crossed out.

<sup>4</sup> Michael Ramsey was archbishop of York during the period 1956-1961. See <http://www.archbishopofyork.org/pages/profiles-of-previous-archbishops-of-york.html>.

<sup>5</sup> In the margin: ‘F.M., p. 291’. The full quotation: “Where I seem to differ from some of my friends is in attaching little importance to physical size. I don’t feel the least humble before the vastness of the heavens. The stars may be large but they cannot think or love; and these are qualities which impress me far more than size does. I take no credit for weighing nearly seventeen stone. My picture of the world is drawn in perspective, and not like a model to scale. The foreground is occupied by human beings and the stars are all as small as threepenny bits. I don’t really believe in

almost nothing.” {3} But whether logically or not, people at the beginning of our epoch did find the physical insignificance of the earth a shock to their faith. And in one way it is not quite fair to quote Ramsey in criticism of this feeling. For part of what they feared was that if the Universe is so vast, the Creator of it, if it has a Creator, must be a quite different sort of being from ourselves, incapable of showing us hopes and fears, so that moral distinctions must be a purely human affair with no cosmic backing, so to speak. And it wasn't just because of the size of the Universe revealed by the new astronomy that people felt this; there was something more subtle and philosophical at the back of it also our dramatization of the new science as presented by people like Galileo and Descartes was that these men ceased to employ the notion of purpose in their explanations. And here again there is no logical reason why the fact that scientists concentrate on the mechanism of things rather than their purposes should be regarded as a denial that things have a purpose – in fact the founders {4} of modern science insisted that things do have a purpose only it's not a physicist's business to investigate that – but psychologically it was a shock to find the behaviour of this whole vast universe explained without talking about purposes at all, but only about blind forces acting in accordance with laws. This helped rightly or wrongly to strengthen the feeling that God, if there is one, isn't much interested in the things we are interested in, and that men must in consequence work out their morality purely for themselves. This consequence, of course, is something that FPR quite cheerfully took for granted; that's what I mean by saying it wasn't quite fair to quote in criticism of the fears of our forefathers.

The way it worked out for a while, then, was this: many religious people opposed the new astronomy and the new mechanisms because of its apparent incompatibility with the idea that the world was made by a God who shares and underwrites certain human moral standards. Most scientists denied this incompatibility, but you did get one or two people, the best known of them being Spinoza, who confirmed the Churchmen's fears by actually developing, in connection with the new science, a philosophy with no place in it for a divine moral purpose. Spinoza says, for instance, “If {5} intellect and will appertain to the eternal essence of God, something far else must be understood by these two attributes than what is commonly understood by men. For intellect and will, which would constitute the essence of God, must differ toti caelo from our will and intellect, nor can they argue in anything save name, nor any more than the dog, as a heavenly body, and the dog as barking animal agree.”<sup>6</sup>

Now this tension, as I've said, in time eased off. In England anyhow - and for convenience I confine myself to them – Spinozism<sup>7</sup> only took on in small pockets, most scientists were pretty pious and the Church came to accept their piety as genuine and to regard their sturdily scientific theories as harmless. Moreover scientists and theologians united in looking for evidence of purpose and contrivance in the world and found plenty of it, mostly in the zoological world. The reasonable science and reasonable religion of this very reasonable period is crystallized in the Natural

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astronomy, except as a complicated description of part of the course of human and possibly animal sensation. I apply my perspective not merely to space but also to time. In time the world will cool and everything will die; but that is a long time off still, and its present value at compound discount is almost nothing.” (Quoted from [http://jonathanglover.co.uk/.](http://jonathanglover.co.uk/))

<sup>6</sup> Spinoza, Ethics Pt. I, Prop. XVII, Note.

<sup>7</sup> Added outside the line: “and similar awfulnesses”

Theology of William Paley.<sup>8</sup> (In another lecture which some of you may have heard, I have already referred to this man Paley as a moralist. Paley believed that morality had to be based on long range {6} self-interest, and self-interest obviously dictates ...) <sup>9</sup>. This work starts off with a very famous simile (p.535-6) ‘In crossing the heath supposed I pitched ... hour of the day’.  
(p. 437) ‘This mechanism being observed ... beyond its use’.  
Then he goes on: ‘Suppose in the next phase ... continues.’ (p. 438)  
‘He would reflect ... their use.’  
‘The question is not simply ... a cause’.  
‘The question which ... presses ... to infinity’. Well, you can see what the general drift of this is going to be. The fact is, he says, that ‘Every induction ... computation’. ‘I know no better ... (p. 439)<sup>10</sup>

And the single broad overwriting purpose towards which all this contrivance is directed, Paley thinks, is the happiness of God’s creatures; but I’ll omit his arguments for that. The whole thing is technically called the {7} teleological proof of God’s existence, or the argument from design, and I have given you enough of Paley’s version of it for you to see why the next shock in the science-religion business was a shock. I have a book here about Darwinism by a prominent and intelligent American Fundamentalist of last century, Charles Hodge; and you do find Hodge complaining, as you’ll expect a Fundamentalist complaining, that Darwinism is inconsistent with the Bible; but that is only his last point, and it is definitely not his main point: his main point is that Darwinism drives purpose out of the theological world.<sup>11</sup> Darwinism, Hodge says, ‘includes three distinct ... physical causes’.<sup>12</sup> And that is the real revolution that Darwinism has affected in the climate of educated opinion. The reason why living creatures and their environment are so strikingly adapted to one another is that the creatures just wouldn’t be still here if they didn’t fit into their environment. There just {8} isn’t any design about it – living beings have been as it were hurled higgledy-piggledy at their environment by the blind forces of nature, and the ones that haven’t found it suited them have just disappeared precisely because they haven’t found it suited them.

There was speculation to this effect even in Paley’s day; in fact Paley himself mentions them. There are those, Paley says, who (p. 449) ‘would persuade us to believe, that the age ... generation’<sup>13</sup>.

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<sup>8</sup> Added and crossed out: “In another lecture which some of you may have heard, I have already referred to this man Paley as a moralist. Paley believed that morality had to be based on long range self-interest, and self-interest obviously dictates ...”

<sup>9</sup> The section in parentheses has been crossed out.

<sup>10</sup> The following has been crossed out: Theologians call this the teleological proof of God’s existence or the argument from design. It is not as popular nowadays as it was in Paley’s time, and if you want to know why you need only read a little further in Paley himself. For even in Paley’s day there was some tentative...”

<sup>11</sup> In the margin: Hodge p. 48

<sup>12</sup> The full quotation: “... Darwinism includes three distinct elements. First, evolution; or the assumption that all organic forms, vegetable and animal, have been evolved or developed from one, or a few, primordial living germs; second, that this evolution has been effected by natural selection, or the survival of the fittest; and third, and by far the most important and only distinctive element of his theory, that this natural selection is without design, being conducted by unintelligent physical causes.” See <http://www.gutenberg.org/files/19192/19192-h/19192-h.htm>.

<sup>13</sup> The full quotation: “... would persuade us to believe that the eye, the animal to which it belongs, every other animal, every plant, indeed every organized body which we see, are only so many out of

Payley's reaction<sup>14</sup> to this: 'There is no foundation ... variety of beings'<sup>15</sup>, 'We may modify ... catalogue'<sup>16</sup>. You see Paley intimates what would support the natural selection theory namely new modifications of species forming now, and traces of vanished varieties; and then he says there is no sign of this, so there is nothing in the theory. But of course by Darwin's time there were signs of these very things which Paley said would support natural selection, and there are still more of such signs known about now. This is one of the few cases known to me where a scientific discovery has been really relevant to a religious question. For in general the relevance of<sup>17</sup> scientific advances to religion and for that matter to philosophy seems to me grossly exaggerated. {9} For example, it's often said that modern neurology shows the dependence of mind upon the matter of the brain. But surely even savages know that you can gravely impair man's mental capacity by donging him on the head real hard. I can't see that modern neurology adds anything to this simple fact in principle. But the evidence that scientists have for natural selection really does diminish the cogency of the argument from design and this has been recognized by exponents of that argument.

What I have said so far about these two periods of crisis in the relations between science and religion, the Copernican and the Darwinian period may well seem to confirm a view of the history of these things that I think is pretty widespread, namely the view that Christianity has simply been

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the possible varieties and combinations of being which the lapse of infinite ages has brought into existence; that the present world is a relic of that variety; millions of other bodily forms and other species having perished, being, by the defect of their constitution, incapable of preservation, or of continuance by generation." (See <http://www.zoocreation.com/natural-theology/chapter-5.html>.)

<sup>14</sup> The text is a bit unclear here.

<sup>15</sup> The full quotation: " ... there is no foundation whatever for this conjecture in any thing which we observe in the works of nature; no such experiments are going on at present—no such energy operates as that which is here supposed, and which should be constantly pushing into existence new varieties of beings. Nor are there any appearances to support an opinion, that every possible combination of vegetable or animal structure has formerly been tried. Multitudes of conformations, both of vegetables and animals, may be conceived capable of existence and succession, which yet do not exist. Perhaps almost as many forms of plant might have been found in the fields as figures of plants can be delineated upon paper. A countless variety of animals might have existed which do not exist. Upon the supposition here stated, we should see unicorns and mermaids, sylphs and centaurs, the fancies of painters, and the fables of poets, realized by examples. Or, if it be alleged that these may transgress the bounds of possible life and propagation, we might at least have nations of human beings without nails upon their fingers, with more or fewer fingers and toes than ten, some with one eye, others with one ear, with one nostril, or without the sense of smelling at all. All those, and a thousand other imaginable varieties, might live and propagate...." (See <http://www.zoocreation.com/natural-theology/chapter-5.html>.)

<sup>16</sup> The full quotation: We may modify any one species many different ways, all consistent with life, and with the actions necessary to preservation, although affording different degrees of conveniency and enjoyment to the animal. And if we carry these modifications through the different species which are known to subsist, their number would be incalculable. No reason can be given why, if these deperdits ever existed, they have now disappeared. Yet, if all possible existences have been tried, they must have formed part of the catalogue ...(See <http://www.zoocreation.com/natural-theology/chapter-5.html>.)

<sup>17</sup> The word 'of' is missing in the original.

making one long retreat in the face of science, sometimes finding a place to pause in for a while, but always having to move further back in the 'end'.<sup>18</sup>

{10} Christianity, it is said, makes assertions about what the world is like which it has to keep on weakening and taking back as one science after another advances to assurance and respectability. When astronomy and physics were being put in order in the days of Copernicus and Galileo, and the primitive notion of a discernible divine activity was driven out of those fields, Christians could still claim a place for this notion in the comparatively backward science of biology, but when that field was put in order by Darwin and his successors they had to get out of there too, and the area in which the hand of God may be legitimately traced by the believing observer just gets smaller and smaller as scientific explanation is extended. Since what I've said so far may well seem to confirm this view, let me now say at once that I think this view a very shallow one indeed, and even in the patch of history that we have been commenting on tonight one can find items that point in a different direction. Here is one rather stinking example:-

After a good many chapters on the {11} evidence of 'contrivance' in the realm of organic nature, Paley does have a little to say about astronomy, but with a word of warning at the beginning he says (p. 517) 'My opinion of Astronomy ..... argument'<sup>19</sup>. In spite of this caution, he finds evidence of design in the solar system and particularly in the way in which the 'source of light and heat' is fixed 'in the centre of the system' – the very thing, one might note, that worried an earlier generation. Paley says: 'The sun is ignited ... by (...)'. Well of course every schoolboy has an answer to that one, but Paley had just heard of it, and has his own reply. He says 'If by way of accounting ..... all the time past.' And this last argument is one which, so far as I can gather, a contemporary physical science only underscores. The cooling of the heavenly bodies is now seen as only one of a number of decay-processes that are going on in the universe, the most striking of them being the radioactive disintegration of the heavier elements, and all of them point to the beginning of the universe as we now know it at some period between 2½ and 6 thousand million years ago. That doesn't constitute anything like a proof that the universe was created at that time, but it does mean that it is difficult to see {12} the universe as having had a permanent existence under unalterable natural laws, and it does also mean that we haven't a simple picture of the foundations of religion being overthrown everywhere as science steadily advances.

I want to back now to another aspect of the evolution business. I have reminded you that the theory of natural selection undermined part of the traditional evidence for the intelligence of the Creator; it was also felt by many people last century to have undermined the evidence for his goodness. For what the theory suggests is that what security living beings now have is the result of long and bitter struggle in which weaker creatures have had to suffer – you know the phrase that describes all this:

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<sup>18</sup> This text is crossed over in the manuscript: "The notion of a discernible purposive divine activity was first driven out of astronomy and mechanics by Copernicus and Galileo against a hopeless Christian rearguard action which had to give in and fall back on biology as a field where you couldn't be without God,"

<sup>19</sup> "My opinion of astronomy has always been that it is not the best medium through which to prove the agency of an intelligent Creator but that this being proved it shows beyond all other sciences the magnificence of his operations The mind which is once convinced it raises to sublimer views of the Deity than any other subject affords but it is not so well adapted as some other subjects are to the purpose of argument". Quoted from <http://books.google.dk>.

'Nature red in tooth and claw'<sup>20</sup>. I'm just not sure what the strength of this really is. This is what Paley said in defence of the divine goodness: (p. 536) 'Contrivance proves design ..... is not the object of it. .... . We never discover ..... or to torment'<sup>21</sup>. But he goes on to say that there are two cases that do make you wonder a bit, namely the case of venomous animals and the case of animals preying upon one another. The case of venomous animals, as Paley himself says in the end is largely just a special aspect of the second thing, animals preying on one another, but it's worth reading one day that {13} Paley has to say [something] about it all the same (p. 537) 'It seems to me .... exempt from these annoyances'<sup>22</sup>. I read recently that there has been a plan against the extinction of crocodiles, for this ... a bit.

How about animals preying on one another, he ~~points out~~ argues that the evil of this is exaggerated. 'Immortality on this earth is out of the question', and since animals must die, how might they best

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<sup>20</sup> Quotation from Alfred Lord Tennyson's *In Memoriam A.H.H.*, 1850., see <http://www.phrases.org.uk/meanings/red-in-tooth-and-claw.html>

<sup>21</sup> The Works of William Paley, D.D.: And An Account of the Life and ..., Vol. 1, p. 229 , see <https://www.mtholyoke.edu/courses/srachoot/Darwin/naturaltheology.html>:

"Contrivance proves design; and the predominant tendency of the contrivance indicates the disposition of the designer. The world abounds with contrivances; and all the contrivances which we are acquainted with, are directed to beneficial purposes. Evil, no doubt, exists; but is never, that we can perceive, the object of contrivance. Teeth are contrived to eat, not to ache ; their aching now and then, is incidental to the contrivance, perhaps inseparable from it: or even, if you will, let...

is not the object of it. This is a distinction which well deserves to be attended to. In describing implements of husbandry, you would hardly say of the sickle, that it is made to cut the reaper's hand: though from the construction of the instrument, and the manner of using it, this mischief often follows. But if you had occasion to describe instruments of torture, or execution, this engine, you would say, is to extend the sinews ; this to dislocate e joints ; this to break the bones ; this to scorch the soles of the feet. Here, pain and misery are the very objects of the contrivance. Now, nothing of this sort is to be found in the works of Nature. We never discover a train of contrivance to bring about an evil purpose. No anatomist ever discovered a system of organization, calculated to produce pain and disease ; or, in explaining the parts of the human body, ever said, this is to irritate ; this to inflame ; this duct is to convey the gravel to the kidneys ; this gland to secrete the humor which forms the gout : if by chance he come at a part of which he knows not the use, the most he can say is, that it is useless ; no one ever suspects that it is put there to incommode, to annoy, or to torment."

<sup>22</sup> From books.google.dk - : "It seems to me that animal constitutions are provided not only for each element but for each state of the elements ie for every climate and for every temperature and that part of the mischief complained of arises from animals the human animal most especially occupying situations upon the earth which do not belong to them nor were ever intended for their habitation The folly and wickedness of mankind and necessities proceeding from these causes have driven multitudes of the species to seek a refuge amongst burning sands whilst countries blessed with hospitable skies and with the most fertile soils remain almost without a human tenant We invade the territories of wild beasts and venomous reptiles and then complain that we are infested by their bites and stings Some accounts of Africa place this observation in a strong point of view The deserts says Adanson are entirely barren except where they are found to produce serpents and in such quantities that some extensive plains are almost entirely covered with them These are the natures appropriated to the situation Let them enjoy their existence let them have their country Surface enough will be left to man though his numbers were increased a hundred fold and left to him where he might live exempt from these annoyances".

do it? Would we really prefer them to be carried off by disease and decay? Animals preyed on by stronger ones don't suffer pains of ... as more intelligent beings do, and they have a fertility which keeps the name going. All not as bad as it looks.

Well, I don't know what you think of that apology or whether you think it's made any less plausible by our fuller knowledge of the struggle for existence in the animal kingdom. I don't know myself what to think about this, but I can only record one or two earlier reactions. Firstly, even in Paley's own day there were plenty who thought his description of the happiness of living creatures over-optimistic; Hume, for example, thought there was much stronger evidence for God's ingenuity than for his benevolence. And there were plenty of religious people who argued that Paley painted the present life too rosy, and that you can't see God's goodness until you take another world into account; though I'm not sure how this helps with the suffering of animals. Secondly, in the late 19<sup>th</sup> century, some people found a justification for a very harsh competitive devil-take-the-hindmost ethics by saying that's the way the universe is obviously run.

See what an interesting development from Paley this is. Paley said that a man with an eye to the main chance will find out what God wants, and doesn't, and if you look around you it will soon be obvious that what God wants is the happiness of his {14} creatures, so promote that and you can be sure of his favours. The late 19<sup>th</sup> century militants and rugged individualists left God out of it but still, perhaps rather inconsequently, sought guidance or at any [rate] justification for their own moral attitudes in the way the world goes, only they had a different view from Paley as to how it does go. Most modern moralists would say that it's a mistake anyhow to try and derive moral precepts from the way the world goes. No one has put this point more strongly than that great evolutionary agnostic T.H. Huxley. 'The cosmic process', Huxley says, 'has no sort of relation to moral ends' and 'the imitation of it by man is inconsistent with the first principles of ethics'. 'Let us understand, once for all, that the cultural progress of society depends, not on imitating the cosmic process, ... but in combating [sic.] it'. And Christian writers like Schweitzer talk exactly the same language. I know Schweitzer is not considered very orthodox, but I hardly think he's unorthodox at this point; for he has the New Testament language about 'Prince of this World' behind him.

Now I've assumed throughout that things are pretty easy between science and religion at the present time; but there's one point where there is, it seems to me, a bit of tension. It's not, or at any rate not primarily, any particular scientific theory that is felt to be in conflict with religion but there is something of a conflict between the scientific and the religious attitudes. The scientist, at least when he's being a scientist, is a man who is always open to correction, {15} always ready to revise his theories; but the religious man has a faith to which he feels some obligation to hold fast. The religious man may do this 'holding fast' either by insisting that this or that e.g. special creation of the different biological species, is a fact no matter what the scientists say, and so coming into conflict with science on its own ground; or he may do this holding fast by so defining his beliefs that no discoveries could possibly touch them, e.g. by saying that a thing might really be a special creation even though there's no way any scientist could distinguish it from ordinary generation. Now either of these ways of holding fast to a creed may well be felt by a scientist to be intellectually disreputable, and my own feeling is probably that it is intellectually disreputable, and that a person ought to regard even his religious convictions as in principle revisable. On the other hand, scientists have their own kind of intellectual disreputableness, namely this:- If a question doesn't lend itself to solution by the scientific techniques of the day, scientists may invent a language in which this question just can't be formulated but in which the questions that can be answered are formulated with great precision and neatness. An example of this sort of thing is the

special theory of relativity, which consists at least partly in the construction of a language in which the question as to which of two events happened first in many cases just can't be asked. Another example would be the construction of a psychological language in which you can talk about behaviour but not about completely private states of commonness<sup>23</sup>. Well, so far, that's all right, and not intellectual disreputable at all. But then a scientist may go on to say that the questions he has thrust on one side just don't exist, and so the scientific picture of the world gets more and more {16} impoverished. And I can't see why a religious person, or for that matter even a person who isn't religious, shouldn't be prepared sometimes to fight the scientists at this point, and to risk being called unscientific because he insists on the reality of positions which someone for one reason or another has pushed on one side. I suspect that the particular area in which this conflict of attitudes, with a bit of wrong on both sides, is most likely to make itself felt, is the area called Cybernetics, in which one studies such things as the selection between human thinking and what is done by these new calculating machines.

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<sup>23</sup> An alternative reading: commonsense.