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THEODICY AND EVOLUTION: ASPECTS
OF THEOLOGY FROM PIERRE BAYLE
TO J.S. MILL

By

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A Thesis
Submitted
in Fulfilment of the Requirements
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Summary

This study is an attempt to describe how a number of thinkers from the seventeenth to nineteenth centuries approached the problem of theodicy in relation to physical evil. Most of those studied also concerned themselves with the natural sciences, aspects of which they sought to relate to their theology. It was sometimes difficult for them to write publishable theology, which would not incur the censure of the authorities, so various devices were employed. This means that some of the work under discussion has to be approached historically in order to ascertain the author's meaning.

The study falls into three sections. Each of the first two follows the same pattern. Three preliminary investigations lead to one substantial chapter, involving reference to the earlier material of the section. Thus the analysis of Bayle, Leibniz and Hume relates to the chapter on Kant, and that of Malthus, Erasmus Darwin and Paley, to the chapter on Coleridge. The two sections are related to one another in that Malthus, Erasmus Darwin and Paley were all in their own ways reacting to Hume, and Coleridge was reacting to the work of his immediate predecessors in this country and also to the writings of Leibniz and Kant. The third section contains one main chapter, together with an extended summary of the study. It is related to the previous two sections in that it attempts to pursue the concern with theodicy in the writings of those mentioned for the first time, in the light of their possible awareness of writers discussed earlier.

PREFACE

I wish to acknowledge my indebtedness to Mr. R.P. McDermott and Mr. J.W. Rogerson of the Department of Theology; Mr. E.J. Kearns of the Department of French; Mr. D.A. Whewell of the Department of Philosophy, all of Durham University; and above all to Professor W.A. Whitehouse, Department of Theology, University of Kent.

In proper names and all technical terms standard modern spelling is used, except in quotations where the form used is as in the source quoted.

Introduction

When A.C. Bradley gave a series of Gifford Lectures in 1907 entitled Ideals of Religion,¹ he presented the press with a summary which was printed as the "Introduction". In this summary he asked the question, "Do we realise how utterly different from the picture of the world which would have been sanctioned by an orthodox theologian a hundred years ago, is the picture habitually presented to and active in the average cultivated European mind of today in regard to the beginning and history of the earth and man, or their possible or probable future, or the causation of events, whether usual or unusual, that happens here or anywhere in the Universe?"² This study is concerned with certain features of that "orthodox" picture before and after Darwin published The Origin of Species, and with the impact that work made on theological thinking. The particular topic within the general field which is of special interest here is that known as "theodicy", a term probably invented by Leibniz.³ Its meaning may be briefly defined as the "problem" of how to justify God in his dealings with man and with his creation, given the claim that there is a divinely good, wise and powerful Creator, and that this is compatible with the presence of evil in the world, supposing evil to be that which God detests.⁴ One topic of related interest has been excluded from the discussion, so far as possible, namely, the topic of whether it is meaningful to assert belief in a creator who possesses a will which his creatures not only can but do disobey. "Theodicy" is integrally related to that area of "natural" theology which may be referred to as

"design" theology. This latter area, which was concerned to derive a kind of theology from nature, was substantially undermined quite independently of the tradition of natural philosophy represented by Darwin, by the philosophical tradition represented by Hume. By paying care and attention to the writings of some of the central figures involved in the undermining it may be possible to discover what it was that so deeply concerned them about this kind of theology, and the theodicy appropriate to it.

Whether or not theodicy is a proper concern for a Christian theologian depends upon what one thinks the tasks of such a theologian are to be. "Any attempts to defend God, any kind of theodicy is wholly alien to Christian faith; a god whom man has to try to defend is no longer God."⁵ This may or may not be the case, but there is no attempt in this study to discuss this question. Rather, I intend to look at the work of some who have thought theodicy to be a proper topic for a Christian theologian, even though some of those to whom reference will be made represent points of view critical of and often hostile to those of the so-called "orthodox" theologians of their period.

It may be that theodicy is an attempt to answer questions that have no answer, and in this case theologians may well be grateful to those who enable the truth of this to be seen. But it will not do initially to accept "impenetrable mystery"⁶ as the reply to the question being raised. As Flew says, "the point has been put that

the known and undisputed facts decisively falsify the fundamental theist claim, that, in the full but basic sense specified, God exists." To escape the charge of wilful self-delusion, he goes on, the believer should show how and why this is not necessarily so since God is so defined in the Christian tradition as having "a set of characteristics which one might uninstructedly have thought, must make it impossible to square an existence claim with some of the most obvious facts of the world around us."⁷

If the world-picture has changed, it may be that the discussion of theodicy can be no more than an historical exercise for a theologian, who would then be attempting to assess the "performance value" which a cluster of ideas once had, and the confidence they engendered, a confidence which would have to be sought from new sources once the ideas were discredited.⁸ However, it might also be the case that from the analysis hints might be discerned as to how to set about constructing a "theology of nature", or at any rate to make some minor contribution to such a construction. A theology related to nature would be a particular area of Christian theology which might be related to "science". As W.A. Whitehouse put it, writing of the Christian interest in "science", "the fundamental concern is to promote and deepen a true understanding in man of his place in the order of time and nature, and to clarify the question about a relationship with God which will govern imagination, aspiration, and actionⁱⁿ all the dealings men have with their fellows, with the things about them, and with the tasks of culture and politics."

And with theology and nature in mind, one may usefully adopt his employment of the word "nature" to mean "a conventional way of referring to the environment within which I have emerged, with other beings some of whom I recognize as my fellow men, an environment which provides vast fields of possible experience."⁹

Finally one may note that later on in his book he writes that another aspect of the Christian's concern "is to anticipate any ill-conceived religious commitments"¹⁰, and it might be the case that attention to this area of religious commitment as it has been seen in the past might at the very least provide one with information about how not to relate theology and "ecology" together in a naive way.

Introduction

- 1 A.C. Bradley, Ideals of Religion, London: Macmillan, 1940.
- 2 Ibid., p.5.
- 3 J.T. Merz, Leibniz, London : Blackwood, 1914, p.101. R.A. Brooks, Voltaire and Leibniz, Genève : Droz, 1964, p.11. Cited as Brooks, Voltaire.
- 4 A. Farrer, Love Almighty and Ills Unlimited, London : Collins, 1962, p.15-16. Cited as Farrer, Love Almighty.
- 5 G. Aulén, The Drama and the Symbols: a book on Images of God and the Problems they raise, London : S.P.C.K., 1970, p.133.
- 6 A.Flew, God and Philosophy, London : Hutchinson, 1966, p.41.
- 7 Ibid., p.42; cf. H.J. McCloskey, "God and Evil", in Nelson Pike, God and Evil, London : Prentice-Hall, 1964, pp.61-84.
- 8 J. Monod, Chance and Necessity, Glasgow : Fontana, 1974, p.155.
- 9 W.A. Whitehouse, Order, Goodness and Glory, London : O.U.P., 1960, p.6.
- 10 Ibid., p.16.

Section I: Bayle to Kant

A. Bayle

One point that arises immediately when looking at the writings of those who have concerned themselves with theodicy is that the topic is one of those that has sometimes been treated so seriously that those who deviated from what was commonly taken to be the "orthodox" position found themselves at least embarrassed socially, or put in a difficult position, if not actually persecuted, because of their arguments or convictions. A theodicy was meant to provide an expression of a guaranteeing by God of the natural order which corresponded to God's attributes. To criticise orthodox contemporary opinion about theodicy it was sometimes necessary to adopt various kinds of literary tactics, either to make the writings seem to be what they were not, or to make it impossible to discern the views to which the writer was unquestionably committed without somehow being "in the know" about his true opinions. Failing subterfuge, or even combined with it, one might publish anonymously, (though this was sometimes done even with non-controversial material), or arrange for posthumous publication. Some interesting comments on this situation are to be found in Leo Strauss's Persecution and the art of writing.¹ The introduction to this book discusses the difference between the status of philosophy in Christendom and that in Judaism and Islam. Philosophy became in Christianity part of the training of the exponent of sacred doctrine. Certainly this meant that for a time philosophy was subject to ecclesiastical supervision, but

it also guaranteed that it flourished. Philosophy in Islam and Judaism was "private", not subject to supervision, and therefore, says Strauss, transpolitical, as in classical Greece. "Even the philosophic schools were founded by men without authority, by private men. The Islamic and Jewish philosophers recognized the similarity between this state of things and the one prevailing in their own time. Elaborating on some remarks of Aristotle, they compared the philosophic life to the life of a hermit."² Strauss goes on in his first chapter to discuss the art of independent thinking and the publication of "unorthodox" views in a social context which is unfavourable to them, either because of powerful supervision of what is taken to be a publicly important activity, as in the case of the church, or public opposition by the "authorities" to what is taken to be a private and dangerous activity. Strauss is discussing political philosophy primarily, not always so distinct from theology as it is now, perhaps, and includes both Bayle and Kant in his discussion. What he says is also very appropriate to the writing of some of the other thinkers with whom this study is concerned, and perhaps helps to explain the manner of their publication of some of their works in some instances. Strauss writes, for example, that a man can talk to his trustworthy friends, and can utter his views in public and remain unharmed, provided he moves with circumspection. He can even utter them in print without incurring any danger, provided he is capable of writing between the lines."³ What is meant by this metaphoric expression is a particular technique of writing and therefore a particular type of literature,

addressed to the reader who is specially intelligent and careful. Some of these readers might denounce the writer to the authorities who may not have spotted the writer's true meaning, but then the burden of proof lies with the authorities, so long, as Strauss points out, as the whole affair remains within the bounds of legal procedure.⁴ This kind of literature "has all the advantages of private communication without having its greatest disadvantage - that it reaches only the writer's acquaintances. It has all the advantages of public communication without having its greatest disadvantage - capital punishment for the author."⁵ The truth is discussed in such a way as not to endanger "orthodox" opinion, which is taken to be vital to that society at that time. Reading between the lines must begin from an exact consideration of the explicit statements of the author, considering the context, the literary character of the work, and its plan. It is of course important to consider "all reasonable possibilities of understanding the passage as it stands - one of these possibilities being that the passage is ironic."⁶ Or as Basil Willey put it in another connection: "Why should anyone ever write ironically instead of stating his case in plain terms? Surely for sheer intellectual pleasure, the joy of creation; and because the oblique method, being a more subtle and controlled form of rhetoric is far more persuasive than undisguised anger or zeal."⁷ Writers of originality with a passionate concern to look at the truth rather than to maintain received opinion may well be forced to adopt some subterfuge when proceeding to erode received opinions, and the writings of Pierre

Bayle serve us as an initial example both of a writer concerned with theodicy, and of one writing under considerable threat of persecution and censorship.

Bayle's handling of the topic of theodicy is found in his Dictionnaire Historique et Critique of 1697 which contained a number of what were to become notorious articles.⁸ Some of these, and the article on "Rorarius", prompted the discussion with Leibniz⁹ which was to lead to the latter's Theodicy.¹⁰ Leibniz was to find more to discuss in Bayle's Réponse aux Questions d'un Provincial, and they both had a look at William King's An Essay on the Origin of Evil of 1702.¹¹ Bayle was already notorious by the time the Dictionary came out,¹² and his work had established some features which were typical of his approach - his honesty in trying to take all the evidence into account, and his determination not to say more than the evidence warranted, which was not unconnected with his suspicion of systemization.¹³ Another characteristic was his hatred of dogmatism and of the cruelties of dogmatic men expressed in his Commentaire Philosophique on Lk 14₂₃,¹⁴ of 1686, some of the points of which appear in his Dictionary article "Pauliciens". Certainly Bayle was aware that any new work he produced would be thoroughly scrutinised, because Jurieu, who had become his major enemy,¹⁵ was well aware that Bayle's "scepticism" about certain matters was damaging to his own "orthodoxy". It is true that in Holland there was no major difficulty, so far as the civil authorities were concerned, in getting work published, though they might take objection to politically dangerous books once these were on the open market. Even then, the action they took was against the printer and bookseller,

rather than against the author.¹⁶ With seven semi-autonomous states, it was difficult to suppress a book. A book might be condemned in the city of its origin without any action being taken about it anywhere else. The reaction of a particular Church was another matter, though the ultimate sanction which could be inflicted on a recalcitrant individual seems to have been excommunication. If Bayle had been willing to abandon his religious orthodoxy entirely, he would probably have been free to write exactly what he liked on religious topics, and it is useful to bear his fidelity to his religious tradition in mind.

In 1693, Jurieu urged the Flemish consistory to dismiss Bayle from his teaching position at the Protestant Academy in Rotterdam, using material culled from the Pensées Diverses to support a charge of atheism.¹⁷ Here Jurieu seems to have had some support from the civil authorities because of what he was able to interpret as Bayle's dangerous political ideas. The consistory at this time contained more members than formerly who were favourable to the house of Orange. Jurieu was busy promoting the image of William of Orange as a second David, so to attack Jurieu might conceivably become a political matter.¹⁸ Bayle was no longer allowed to give even private instruction, but he had enough to live on and was not without friends. One thing at least the consistory learned from this controversy: the next time Bayle was accused they insisted on trying to examine the whole of one of Bayle's works, instead of extracts chosen by his enemies.¹⁹ What was at issue was that Bayle and his friends saw Jurieu as the prime

destroyer of the distinctive character and achievement of 17th Century French Calvinism. Rex writes of the French Calvinists, that they held to a firm belief that being one of God's elect never excused crime in any circumstances and they were increasingly attached to the religious pacifism of the Spirit of the Gospel.²⁰ Jurieu was not to be allowed to maintain that evil was not evil, that brutality was allowable if committed by Israelites, that it was possible to hate one's neighbours for the greater glory of God, and that wars of religion could be supported by O.T. theology. Therefore the article in Bayle's Dictionary on "David" is important in assessing what Bayle says about God's goodness and the discussion of theodicy elsewhere in that work, because his point is simply that it is "of great concern to true religion that the lives of the Orthodox be judged by the general concepts of right and order."²¹ Considering that this is one of its most important principles, it now seems surprising that this is one of the articles the Walloon Consistory was to ask Bayle to re-write. But the reason for that seems to have been that although the Dictionary had not been planned as an instrument of controversy, such an instrument it had become in the course of writing. In Bayle's preliminary sketch of the work there was nothing on "David", the "Manicheans", "Paulicians", or "Pyrrho", but Jurieu's attacks made such a difference to him that it "removed his previous reluctance to write against a fellow Protestant, and coloured his judgement to the point that he carries his personal and doctrinal counter-attack into the Dictionnaire."²² Evidence also appears in other articles concerned with the discussion on evil, since Bayle wanted to take every opportunity to expose the

bankruptcy of Jurieu's position.²³ The Walloon Consistory might well be concerned about the public display of an intra-confessional argument. The consistory wanted the articles on all the above-mentioned subjects revised, but Bayle maintained that his subscribers would not buy the second edition unless they could have the original articles, and the only major concession he made was to cut the article on "David" and to add four clarificatory articles to the second edition. One of these clarifications was concerned with the subject of the "Manicheans" where he particularly displayed his originality.²⁴

Voltaire provided perhaps the shrewdest comments on his work, when he stated that "no one could prove that he was anti-religious but he turned people away from religion by setting forth the objections to our dogmas so clearly that a lukewarm faith could not but be shaken; and unfortunately most of his readers possess only a lukewarm faith."²⁵ And, "Would to God that Bayle had been drowned along with the rest of the heretical Dutch. He sets forth things with such an odious accuracy, and puts the arguments for both sides before us with such shocking impartiality and is so intolerably intelligible that he puts even those of the most meagre understanding in a position to judge and even to doubt what is told them."²⁶ Nevertheless, Bayle's work needs careful reading, precisely because of the way in which he presented the issues. Having selected his topic,²⁷ his method is to present the reader with a main article on that topic, with extensive footnotes to provide support for the text, and employing many cross-

references which have to be taken into account to arrive at his meaning. E. Labrousse provides an anatomy of this anatomist. Bayle's object is meticulous dissection, not coherence. He is not an eagle to gaze over the plain, but is more like a sparrow who hops, picks and peels the husks off.²⁸ Attentive readers he knew he would have, both those who were genuinely interested in anything he wrote, and the church censors, the "erudite theologians who had had years of training scenting heresies in large volumes, had been nourished all their lives upon long footnotes and commentaries on the text, and, moreover, took their task very seriously."²⁹ His method would at the very least baffle his enemies initially as well as enabling his friends to plead for time for all concerned to examine the whole of his work. His is "a life-long habit of approaching serious subjects in an indirect and devious manner. His cunning interweaving of traditional and conventional opinions on dangerous subjects made the reading of Bayle's articles fascinating riddles to his contemporaries. The popularity of this pursuit was not unlike the passion for detective stories today, and, then as now, the persistent reader was sure to discover the murderer in the end."³⁰ A number of points may, with caution, be extracted from the Dictionary to reveal Bayle's problem with theodicy.

As has already been indicated, Bayle's article on "David" denied that particular individuals were exempt from criticism in terms of the concepts of goodness and wickedness as commonly understood. Further to this point, but now applied to the deity, in "Pyrrho"

he writes:

our theologians tell us that God, having to choose between a world perfectly regulated, adorned with every virtue, and a world like ours, where sin and disorder predominate, preferred ours to the other as suiting better the interest of his glory. You are going to tell me that the duties of the creator should not be measured by our standards. But, if you do this, you fall into the nets of your adversaries. This is where they want you. Their major aim is to prove that the absolute nature of things is unknown to us and that we can know them only relatively. We do not know, they say, if sugar is sweet in itself. We know only that it appears sweet when it is placed on our tongues. We do not know if a certain action is righteous in itself and by its nature. We only believe that with regard to such a person, with respect to certain circumstances, it has the appearance of righteousness. But it is something in other respects and other relations.³¹

There is, however, a problem in believing that God detests what man detests, and that God is good as man understands the word, and this is what lends strength to the Manichean position, as Bayle describes it in his article, "Manicheans". The "orthodox" position is that "The most certain and the clearest ideas of order teach us that a Being who exists by himself, who is necessary, who is eternal, must be one, infinite, all-powerful, and endowed with every kind of perfection."³² One point related to this that one may pick up from "Paulicians" is that "since God gave being to his creatures as an effect of his goodness, he also gave them, in his role as a beneficent cause, all the perfections proper to each species."³³ If that were true, as he indicates in "Manicheans", the fact that there is opposition among the entities of the world "fortified as much as one likes by what are called variations, disorders, irregularities of nature, cannot make half an objection against the unity, simplicity, and immutability of God."³⁴ The created

order declares the glory, the power and the unity of God.³⁵ But Manicheism derives from what Bayle calls a deep meditation on the state of man.³⁶ Physical evil³⁷ could be described as the result of man's sin, as the punishment of moral evil, a punishment which, "far from being incompatible with the supremely good principle, necessarily flows from one of God's attributes, I mean that of justice, which is no less essential to man than God's goodness."³⁸ It was because of man's sin he suggested in "Paulicians", that God prepared "all the misfortunes that can be conceived for the human race in this lifetime - plague, war, famine, pain, trouble - and after this life a hell in which almost all men will be eternally tormented in such a way that makes our hair stand on end when we read descriptions of it."³⁹ But man himself, according to orthodox religion, is "the product of an infinitely holy and infinitely powerful being."⁴⁰ There seems for Bayle, to be no rationally satisfactory explanation of why he should sin, or of why his sin should involve such consequences as extreme physical pain. The perplexity into which we may be driven in considering these problems has led some to propose two principles. These

have made an agreement that reciprocally limits their operations. The good one cannot do us all the good that it wishes to. It was necessary that in order to do us much good, it consented that its adversary do us as much harm; for without this agreement chaos would always have remained chaos, and no creature would ever have experienced what is good. Thus the supreme goodness, finding a better means of satisfying itself in seeing the world sometimes happy and sometimes unhappy than in never seeing it happy, made an agreement that produced the mixture of good and evil that we find in the human world.⁴¹

So he arrives at his conclusion about the fate of reason with regard to his discussion: "Behold that here the Manicheans, with a completely absurd and contradictory hypothesis, explain experiences a hundred times better than do the orthodox, with their supposition so just, so necessary, and so very true of an infinitely good and all-perfect first principle."⁴² Their "explanation" of experience is "better" in the sense that they are not compelled as the orthodox seem to be, to compare God either "to a father who allows his children to break their legs so that he can show everyone his great skill in mending their broken bones, or to a king who allows seditions and disorders to develop through his kingdom so that he can gain glory by overcoming them." The major issue is clear: "The conduct of this father and this monarch is so contrary to the clear and distinct ideas by which we judge goodness and wisdom and in general all the duties of a father and a king, that our reason cannot conceive how God could act in this way." To say "the ways of God are not our ways"⁴³ may be helpful insofar as it directs our attention to the fact that reason alone in relation to experience cannot cope with the Manicheans. Nor can Scripture in and by itself, as Bayle's conflict with Jurieu, showed. The orthodox position is that it depends upon revelation and is in some sense therefore derived from Scripture. The fundamental principle of the orthodox is to be considered "as a truth of fact, clearly revealed; and since it must finally be admitted that

the causes and the reasons for it cannot be understood, it would be better to say this from the outset, and stop there, and allow the objections of the philosophers to be considered as vain

quibblings, and to oppose nothing to them but silence along with the shield of faith."⁴⁴ For Bayle, experience, and a dualistic theology related to that experience, are not to be allowed to have the last word. A *theological* statement which expresses the truth that Scripture teaches will be his "defence". Moreover, there are no rationally defensible arguments for his position in the last analysis.

It is useful to notice, however, that Bayle's discussion of evil is not confined to the articles which first drew the attention of his enemies and critics, because in these other articles are contained some of his most illuminating comments on what he understands to be the issues involved. For example, in his article on "Origen" he takes up a point that has been proposed by the Origenists, that the suffering of pain, including man's suffering in hell, is of a short duration, and explains what he thinks a Manichean might make of it:

The first thing he might say is, that we do not find in our minds the idea of two sorts of goodness; one of which consists in making a present, whose bad effects are foreseen without preventing them, though that is in the power of the giver; the other in granting a favour of such a nature as will always be advantageous to the receiver. It is needless to observe, that by the idea of goodness we do not understand an imperfect sort of goodness, such as we meet within the heart of a sinner; but a goodness which in a logical abstracted sense is clear of all failure. This ideal goodness is not a genus containing under it the two species just described. Its essential and distinguishing attribute is so to dispose its subject as to bestow favours, which by the shortest and surest means it can make use of, may render the condition of the receiver happy.⁴⁵

Some of his illustrations are to reinforce what he has said elsewhere about the peculiarity of "goodness" as applied to those who dispense

favours to those whom they know will make a fatal use of them. On the particular problem of man's ultimate salvation from hell he cites the character of Cardinal Mazarin and his foible of "spinning out the execution of his promises to such a length of time, that all the pleasure was wasted in the expectation, and his favours were all cancelled by the application which was necessary in order to extort them."⁴⁶

If God can abate man's punishment by pain, of which torment in hell is an extreme example, he can abate it immediately and not simply halve its duration or diminish it in some other proportion. Bayle writes that "we can never rise from cruelty to infinite goodness by a bare diminution of cruelty." And there could not, in the infliction of such punishment, be any mistake on God's part. "We commend the exactness of a Clockmaker, if his pendulum does not err above two or three seconds in a year. But the exactness of an artificer infinitely perfect, absolutely excludes all exceptions; his holiness, his wisdom etc. are absolutely simple, and without any mixture of contrary qualities: I say, without the least mixture which can be conceived, or which can possibly exist in the nature of things."⁴⁷

Clearly, Bayle will have no truck with any talk about God which, as he says, adopts the Manichean error of saving God's goodness at the expense of his power. He concludes that "both the ideas of experience and metaphysics concur in demonstrating, that to hurt anyone, though it be for never so short a portion of time, and in order to procure him the greatest benefit, is altogether incompatible

with goodness, unless it be absolutely impossible to find out a strait path to lead him from good to good in a constant and invariable manner."⁴⁸

What is also important about the "Origen" article is that it draws attention to an important fact to be borne in mind when one is endeavouring to put Bayle's views into perspective especially when reading "Manicheans" and "Paulicians" as already described. He is interested in exposing the errors of Christian theologians, including those of the patristic period, but usually steers clear of the discussion of specifically Christian scripture. In other words, whilst there are brief articles on "Antipater" and "Archelaus" who might in the most general sense be described as New Testament subjects if one were compiling a dictionary of New Testament personages, he avoids all discussion of New Testament material, with the exception of such an article as that on "John the Evangelist" which is simply a short discussion of an historical problem. He is himself almost "Marcionite" in his worry over the content of some Old Testament books, yet curiously does not make use of material in the Old Testament which one might have thought cohered with the New Testament material on which his faith depended. His article on "Job" for example is as brief as the one on "John the Evangelist". It may be that Bayle did not make use of this Old Testament material because he believed his enemies would not allow him to make such a selective use of it, or he may have meant to indicate by the subjects he had chosen the kind of treatment he could offer of any Old Testament subject. But there is something odd about his appeals

to scripture in "Origen", for one instance. "This is the way of teaching those their duty, who mean to subject Theology to Philosophy. You must show to them the absurd consequences of their method, and by that means bring them back to this maxim of Christian humility. That metaphysical notions ought not to be the rule, by which we are to judge of the conduct of God; but that we ought to conform ourselves to the oracles of the scripture."⁴⁹ The oddity lies in the fact that he nowhere tells us what oracles he means, and one must suppose that he means the oracles of the New Testament, since he does not criticise it explicitly. Yet he must have a way of coping with it which was different from that of the Christian theologians whom he criticised, since they found in the New Testament as in the Old, the problem of theodicy embodied, and presumably a paradigm "solution" of the problem there - but that would surely raise in an intolerable form for Bayle the problem of the goodness of God in whom his faith rested. One can only suppose that the oracles of scripture on which he depended were those of the New Testament which inform man of the attributes of God as Bayle had indicated them to be and was prepared to express in non-biblical terminology, together with those which refuse to man the ability rationally to defend such statements of belief. Philosophy was useful only to make clear and correct the content of Scripture, but could not function independently of Scripture to establish faith.

Some of his articles on ancient philosophers also drew attention

to Bayle's discussion of theodicy, and what is helpful about them for the present purpose is that they also indicate what little he has to say about "design" theology. He quoted with approval the scholastic axiom "That a Philosopher ought not to have recourse to God, Non est Philosophi recurrere ad Deum: They call this recourse the Sanctuary of Ignorance. And indeed what could you say more absurd, in a piece of Physics than this; Stones are hard, Fire is hot, and Cold freezes Rivers; because God has ordered it so?" He virtually indicated the scope of Leibniz' programme when he wrote with approval of Anaxagoras' inability to supply Socrates with what he describes as absurd explanations, or explanations which would depend upon man's having insight into God's reasons for making the world as it is:

All that the greatest Philosophers can say, upon this Occasion, amounts to this: That, since The Earth is round, and situated at such a Distance from the Sun; This Figure and Situation were necessary to the Beauty and Symmetry of the Universe; the Author of this vast Machine having an infinite Intelligence and Wisdom. From hence we know, in general, that everything is right in this Machine, and that there is no Defect in it: But, if we should undertake to make it appear, Piece by Piece, that everything is in the best State it could possibly be in, we should infallibly assign very wrong Reasons. 50

As a particular illustration he noted, "Would Sir Isaac Newton, who has discovered so many Mathematical and Mechanical Beauties in the Heavens, pretend to warrant, that, if Things were not such, as he supposes them, as to Magnitude, Distances, and Velocities, the World would be an irrégular work, ill built, or ill contrived?"⁵¹ Bayle considered a different view from that of Leibniz' when he said, "Is not the Divine Understanding infinite? God has therefore the Ideas of an Infinity of Worlds, different from each other, all of them

Beautiful, Regular, and Mathematical, to the last Degree." God's work is as it ought to be, but is clearly one of a number of alternatives which would have been possible. Therefore although it is nonsense to try to give what Bayle calls "particular reasons" why, for example, man has two eyes placed in his head as they are, rather than six eyes placed round the head,⁵² this does not inhibit a general confidence that things are as God means them to be.

Inevitably this led him back at various points in other articles to his problem of theodicy. Chrysippus raised a question in his work on Providence: "Did the Nature of Things, or the Providence that made the World and human kind, make also the Diseases, to which men are subject?"⁵³ Bayle left Chrysippus' answer to this question without comment, except for his ironic commendation of what he indicated as the best a pagan philosopher without knowledge of the Fall could say to explain the vices of men. Chrysippus had answered that some features of things happened as "consequences" rather than being part of nature's primary aim and design.

For the Formation of a human Body, said he, the exactest Idea, even the Usefulness of the Work, required, that the Head should be composed of a Contexture of small and thin Bones; for from thence this Inconvenience resulted, that it would not be able to resist Blows. Nature was preparing Health, and at the same time, by a kind of Concomitancy, it was necessary, that the Source of Diseases should be opened. It is the same with respect to Virtue; the direct Action of Nature, that gave it a Being, did, by a Counter-Blow, produce the Generation of Vices.⁵⁴

Presumably Bayle could not commend this kind of "explanation" of one instance of physical evil in the light of his remarks in "Anaxagoras". And in "Epicurus" one finds oneself again with the principles

which Bayle maintained he found in scripture, which laid "the solid Foundation of the Providence, and Perfections of God". The scriptural principle of God's having been the creator of all things, of both their matter and their form gives us also three subsidiary principles.

"I. That with the most lawful Authority that can be, he disposes of the Universe as he thinks fit: II. That he needs only a single Act of his Will to do whatever he pleases: III. That nothing happens but what he has placed in the Plan of his Work." He now introduced a theme which also appeared in Leibniz' Theodicy as an implication of his optimism: "It follows from thence, That the Conduct of the World is not an Employment that can either fatigue or trouble God, and that no Events whatsoever can disturb his Felicity." Whatever happens is subservient to "the Ends he has proposed to himself from all Eternity, and which are the greatest Mysteries of the Gospel."⁵⁵

It is precisely from this kind of viewpoint that Leibniz was to draw conclusions far different from Bayle's about how much could be done to justify God's dealings with his creation. It is because they were so similar to one another in certain respects that their work was reciprocally so interesting, though temperamentally they were very different. Leibniz' contentment and enjoyment of things are manifest in his Theodicy. It is difficult to imagine him writing as Bayle did in "Xenophanes" that "We are subject to pain and sorrow, to such terrible afflictions, that it is not to be decided which is most dreadful. The most vigorous health does not secure us from grief. For grief flows in upon us through a thousand channels, and is of the nature of dense bodies: it comprizes a great deal of matter in

a very small compass; evil is heaped up, crowded and pressed close in it. One hour's grief contains more evil, than there is good in six or seven pleasant days."⁵⁶ Nothing that reason can utter can support man through his experience of anguish.

One can hardly overstress the importance of Bayle's writings for his successors in raising in his own inimitable way the issue of theodicy. Leibniz alone was to offer a through-going "defence" of God by tackling what he saw to be the implications of the orthodox position as Bayle had stated it, and dealing with the absurdities and paradoxes Bayle found to be implicit in it. Bayle believed that the statements of orthodoxy, however absurd they were in the face of man's experience of physical pain, were guaranteed to be true because they depend, in some unspecified sense, on scripture, and therefore on revelation. Argument could not support his beliefs, though he could effectively explain what he meant by the goodness of God. Leibniz found it a great fault in him,⁵⁷ gifted though he was⁵⁸ that he demonstrated not only the folly and pretensions of humanity in his role as historian and critic, but the nonsensical conclusions to which reason could press, in his role as sceptic. Leibniz clearly regretted the fact that Bayle died before the Theodicy came out, so that he did not have the opportunity to show him how reason could demonstrate the goodness of God and yet face up to the existence of evil in the world.

Bayle

- 1 L. Strauss, Persecution and the Art of Writing, Glencoe, Illinois: Free Press, 1952. Cited as Strauss, Persecution. Cf. L. Strauss, What is Political Philosophy, New York: Free Press, 1959, ch. IX, "On a forgotten kind of writing".
- 2 Strauss, Persecution, p.21.
- 3 Ibid., p.24.
- 4 Ibid., p.26.
- 5 Ibid., p.25.
- 6 Ibid., p.30.
- 7 B. Willey, Darwin and Butler: Two Versions of Evolution, London: Chatto & Windus, 1960, p.98.
- 8 P. Bayle, Historical and Critical Dictionary, London, 1734, second edition in five volumes. This translation was made from Bayle's second edition of 1702, and includes Bayle's introduction to both his first and second editions, his life by Des Maizeaux, and a full account of the controversies in which he was engaged. For comprehensive discussions of Bayle, cf. I.O. Wade, The Intellectual Origins of the French Enlightenment, U.S.A.: Princeton U.P., 1971, pp. 542-624. Cited as Wade, Intellectual Origins. And P. Dibon, ed., Pierre Bayle, Le Philosophe de Rotterdam: Etudes et Documents, Paris: Elsevier, 1959. Cited as Dibon, Bayle.
- 9 E. Labrousse, Pierre Bayle: II, Hétérodoxie et Rigorisme, The Hague: Nijhoff, 1964, pp. 208-10. Cited as Labrousse, Bayle. Cf. Leroy E. Loemker, ed. and trans., Gottfried Wilhelm Leibniz: Philosophical Papers and Letters, Dordrecht: Reidel, 1969, Cited as Loemker, Leibniz.
- 10 G.E. Leibniz, Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil, A. Farrer ed., and E.M. Huggard, trans., London: Routledge & Kegan Paul, 1951. Cited as Leibniz, Theodicy.
- 11 W. King, An Essay on the Origin of Evil, E. Law ed. and trans., London: 1731. Law quotes (p.74) Bayle's Dictionary on the "Manichees" and "Pauliciens" etc. and occasionally some of his other works. The Leibniz to which he refers is normally the Leibniz of the Leibniz-Clarke Correspondence, with rare references to the Theodicy as such, e.g. p.157, p.179, p.193-4, p.199, but nowhere does he quote the work as extensively as he quoted from Bayle's Dictionary. Perhaps Law thought Leibniz' Theodicy superfluous after King's book. Cf. John Hick, Evil and the God of Love, London: Macmillan,

1966, pp. 154-60. And Sir Charles Simon King, ed., A Great Archbishop of Dublin, William King D.D., 1650-1729. His Autobiography, Family, and a Selection from his Correspondence, London: Longmans, Green, 1906, p.402: "In the year 1697 I produced a book entitled 'De Origine Mali'. Mr Bayle published strictures on it before he had read it; it will not seem wonderful that they were marked neither by sense nor force of argument, when the book was not otherwise known to him than from a summary, an abridged narration of it which Mr. Bernard, a learned man, contributed to a certain French work ...". Bernard's summary appeared in the May-June, 1703 number of the journal Bayle had founded, the Nouvelles de la République des Lettres. Leibniz' comments on King appear in the Theodicy, p. 274f, p.292f, p.340f, and principally pp. 405-442.

- 12 In such works as his Pensées diverses écrites a l'occasion de la comète qui parut au mois de Decembre 1680, and in his Critique generale de l'histoire ... de M. Maimbourg of 1682. Cf. K.C. Sandberg, ed. and trans., The Great Contest of Faith and Reason: Selections from the Writings of Pierre Bayle, New York: Ungar, 1968. Cited as Sandberg, Selections. Cf. E.A. Beller and M. du P. Lee, ed. and trans., Selections from Bayle's Dictionary, U.S.A.: Princeton U.P., 1952, p.xv. Cited as Beller and Lee, Selections.
- 13 R.M. Saunders, "Pierre Bayle, Skeptical Prophet of Enlightenment", in Journal of the Canadian Historical Association, (1960), pp. 44-56. Cited as Saunders, "Bayle".
- 14 E. Cassirer, The Philosophy of the Enlightenment, trans. F.C.A. Koelln and J.P. Pettegrove, Boston: Beacon, 1962, p.167-8. Cited as Cassirer, Enlightenment.
- 15 K.C. Sandberg, "Pierre Jurieu's Contribution to Bayle's Dictionnaire", Journal of the History of Philosophy, III, (1965), 59-75. Cited as Sandberg, "Jurieu".
- 16 K.C. Sandberg, "Pierre Bayle's Sincerity in his Views on Faith and Reason", Studies in Philosophy, LXI, (1964), 74-84.
- 17 H.C. Hazewinkel, "Pierre Bayle à Rotterdam" in Dibon, Bayle, p.34f.
- 18 Walter Rex, Essays on Pierre Bayle and Religious Controversy, The Hague: Nijhoff, 1965, p.251. Cited as Rex, Essays.
- 19 Hazewinkel, in Dibon, Bayle, p.39.
- 20 Rex, Essays, p.232.

- 21 R.H. Popkin, Pierre Bayle: Historical and Critical Dictionary: Selections with Craig B. Brush, ed. and trans., U.S.A.: Bobbs-Merrill, 1965, p.53 from note D, and p.62. Cited as Popkin, Selections.
- 22 Sandberg, "Jurieu", p.61-2.
- 23 Bayle, Dictionary, "Marcion" in IV, for example.
- 24 Popkin, Selections, p. 395f.
- 25 Sandberg, Selections, p.xii. Cf. H.T. Mason, Pierre Bayle and Voltaire, London: O.U.P., 1963.
- 26 Beller and Lee, Selections, p. xxxii. Cf. Craig B. Brush, Montaigne and Bayle: Variations on the Theme of Scepticism, The Hague: Nijhoff, 1966, p.256, and Cassirer, Enlightenment, p.161-2, and 201f.
- 27 Labrousse, Bayle, p.194, note 32, on the way in which Bayle includes many minor or neglected figures and ignores more obvious subjects either because they did not interest him, or because they had already been included in other dictionaries available in his time.
- 28 Ibid., p.134.
- 29 Rex, Essays, p.202.
- 30 Saunders, "Bayle", p.50-51.
- 31 Popkin, Selections, p.203.
- 32 Ibid., p.145 note D.
- 33 Ibid., p.188 note M.
- 34 Ibid., p.145 note D.
- 35 Ibid., p.146 note D.
- 36 Ibid., p. 73 note E.
- 37 Ibid., p.148 note D and p.170.
- 38 Ibid., p.149 note D.
- 39 Ibid., p.185 note F.
- 40 Ibid., p.174 note E ; p.172 of note E ; p.148 note D.
- 41 Ibid., p.173 note G.

- 42 Ibid., p.173 note E.
- 43 Ibid., p.176 note E ; p.171, 174 note E; p.188-9 ; p.191 note M.
- 44 Ibid., p.193 note M; p.177 note G; p. 206. Cf. also the "Second Clarification" pp.409-420.
- 45 Bayle, Dictionary, "Origen", IV, 416, note E.
- 46 Ibid., p.417.
- 47 Ibid., p.418.
- 48 Ibid., p.419.
- 49 Ibid., p.419.
- 50 "Anaxagoras", I, 310 note R.
- 51 Ibid., p.310-11.
- 52 Ibid., p.34.
- 53 "Chrysippus", II, 496 note T.
- 54 Ibid., p.497.
- 55 "Epicurus", II, 789 note T.
- 56 "Xenophanes", V, 579, note F.
- 57 Leibniz, Theodicy, p.216-7.
- 58 Ibid., p.62.

B. Leibniz

It was Leibniz who provided an answer to Bayle which depended upon a full exposition of the a priori approach which had provided Bayle with a theoretical standpoint against the Manicheans, and which Bayle had found unsatisfactory unless it was to be seen as expressing the truth of Scripture. Leibniz' exposition depends above all on understanding the "rapport" of the divine attributes one with another in creation, so here was a profound difference in the approaches of these two men to "theodicy". Despite this they had a considerable admiration for one another. Bayle had been interested in Leibniz' work at least since 1686¹, and the two exchanged their views not only through the obvious means of private correspondence, but by circulating their replies to one another via the journals which were such a feature of the intellectual life of the time. Much of their discussion was about the metaphysic in terms of which Leibniz published his world view, which seemed to Bayle to defeat the philosophical and theological imagination. This discussion is reflected in the Theodicy but is not there Leibniz' main concern.

Leibniz was a more than worthy subject for Bayle's attention, Barth described Leibniz as the pre-eminent representative of his period², "primarily the discoverer, the believer, and the exploiter of the miracle of human power", who above all stood for "man's optimistic effort to master life by means of his understanding."³

Of the Theodicy in particular Barth said that hardly "a hundred years after the horror and miseries of the Thirty Years War, there is sounded and sung to a finish a hymn in praise of the Creator" which had its part to play in relating the ecclesiastical and secular history of the day to the "radiance of God".⁴ It will later on be seen that Kant also, for all his criticism of rational theodicy, brought his own "justification" of God into play precisely in relation to his political theory.

The Theodicy was of particular importance for Leibniz, in that it was the one major work out of many that he wrote, by which he chose that his contemporaries should know him.⁵ So far as England is concerned, we may note that Princess Caroline thought the work so important that she hoped that Samuel Clarke would do a translation of it into English though she was well aware that Clarke was not wholly sympathetic to Leibniz' approach. What Clarke was to do was to make brief extracts from the Theodicy which he published in translation in 1717 together with his correspondence with Leibniz.⁶ The Correspondence represented, however briefly, some of the most important theological points Leibniz wanted to make.⁷ Unfortunately, given the dispute between the Newtonians and Leibniz, the latter's views were not likely to become so interesting to the English as to make them want to read the Theodicy itself, or any other works of Leibniz' as they became available. By the time they could have been assimilated by English-speaking theologians, the focus of attention was on the work of Kant, and with rare exceptions, such as J.S. Mill, Leibniz was

virtually forgotten as a theologian. It is therefore somewhat curious to read that "The mood of the Theodicy survived Voltaire's ridicule and, sacrificing depth as it achieved popularity, lived until the pessimism movement of the 19th century; even Darwin could not help reflecting it."⁸ This kind of comment is true only in the sense that by the time Darwin was writing, some of the themes about God and nature so ably expressed by Leibniz had passed into common European culture.

No more than Bayle could Leibniz be satisfied with any other God than one whose goodness was to be adored without hesitation. He could not agree with Bayle's understanding of the religious response to God as excluding "reason", however, because he did not see the god of rational theology as a sort of cosmic Nero, an aesthete who enjoyed the spectacle of pain.⁹ He wanted to provide a theology which would, for once and all, banish this nightmare, and console the man whose grief¹⁰ lay in his appreciation that evil was apparently woven into the entire cosmic texture. Leibniz' response to God was also a response of religious conscience, but was informed by what he believed to be a rational apprehension of God. He wanted intelligent and sensitive men to see the world as he believed God sees it.¹¹ As a scientist, he exemplified "the power of discursive, logical thought, of searching and of examination, of abstraction, of definition and drawing conclusions."¹² But he also sought for "understanding", the "simple vision to which truth offers itself like a landscape to the eye."¹³

Given Leibniz' theological orientation, he may be said to have offered the model theodicy of his time, "mingling questions of grace and scripture with philosophical issues ... having a primarily controversial and apologetic aim."¹⁴ One may well wonder why he included the questions of grace and scripture, and how he intended the material on these questions to be read, since he had in Bayle a lively example of the hopelessness of trying to construct theodicy merely by invoking scripture. Human experience and scripture were for Bayle so baffling that he was reluctant to quote from the Bible, except when he wanted to make a point about the weakness of human reason. It became clear, however, that Leibniz maintained that there were three philosophical topics to be looked at, i.e. those of necessity, freedom, and the origin of evil, and three theological topics, (by which he seems to have meant topics directly derived from reflection on scripture) original sin, grace, and predestination.¹⁵ On careful examination one sees that it was the discussion of the first three which provided him with his method of dealing with the second three.¹⁶ Leibniz in effect provided Bayle with a method for coping with his dilemma over the meaning of scripture, except that it was a technique Bayle could not employ, given Bayle's concern with his particular kind of analysis of historical and empirical fact, as a possible basis for theodicy.

More than that, one gradually realises that none of the material which related to any one of the three theological topics, in so far as they received expression in biblical terminology, was an essential part of Leibniz' theodicy so far as he himself was concerned, though

of course it was integral to his work as presented to the public. So one may answer a number of questions relating to the nature of the Theodicy. One question¹⁷ that has been asked is why in the course of their discussion, Bayle chose to deal with Leibniz primarily on the level of his a priori argument, rather than tackle the question of the authority of scripture, which for Bayle was the foundation of the truths that alone "satisfy" reason. The answer perhaps is that Bayle realised only too well that scripture and the conclusions to be drawn from it, such as they were, were of little significance for Leibniz, except as serving to confirm truth arrived at by a process of a priori reflection as can be demonstrated from the Theodicy. Bayle had to try to meet Leibniz on his own ground, which in a strange way was his too, because it was a theological principle which enabled him to say that manicheism was a mistake, both for philosophy and theology, however initially productive it was of a certain kind of "explanation".¹⁸

One also must realise that Leibniz is himself writing under a certain kind of "constraint", and this was why he included the "theological" topics in their biblical dress in his work, so that it could be read as a book of "piety" although he himself could well dispense with "revelation". As Barber says, Leibniz led a double life, philosophically speaking. "The mainspring, the most important elements in his thoughts, are to remain concealed from public view, and only those ideas are allowed to appear which he considers will not arouse disapproval or hinder him in his practical tasks."¹⁹ Barber and others have noted that one of Leibniz' concerns was for

the reunion of the churches, and he was well known for the determined emphasis of his belief that theology, metaphysics, and natural science were appropriate to one another.²⁰ The understanding of his political concerns enable one to temper somewhat the kind of comments Russell offered in his book on Leibniz, where he referred to the necessity laid upon Leibniz to give satisfaction to his employers. Russell suggested that this accounted for some inconsistencies in Leibniz' work, which arose "solely through the fear of admitting consequences shocking to the prevailing opinions of Leibniz' time". He went on, "Where such inconsistencies are found, we, who do not depend upon the smiles of princes, may simply draw the consequences which Leibniz shunned."²¹ As other commentators have put it, Leibniz "was not satisfied, as the modern scholar pretends to be, merely to put down the truth in writing; his first aim was to introduce the truth into the society in which he lived, in particular into the worlds of learning, of politics, and of religion."²²

Leibniz is a profoundly devout man though his piety happens not to be fundamentally biblical in its expression, but the fact that his published theology had a biblical dress would seem to be understandable in view of what he saw his obligations to be. Some of Kant's work also looks at first sight to be "biblical" yet he too employed from time to time a biblical camouflage without wanting to promote devotion to God exactly comparable to Leibniz,²³ though his purpose in writing about God was an equally serious one. Neither of them took part in public religious observances. Bayle was perhaps

particularly shrewd in spotting Leibniz' characteristic of "sitting loose" to biblical material in the work of Leibniz which he knew, so presumably if he had been able to continue his discussion with Leibniz on the basis of the text of the Theodicy he would have found little there to persuade him to alter his views. So far as readers other than Bayle were concerned, the sheer complexity of the Theodicy would offer Leibniz some protection from a charge of being indifferent to biblical revelation. In addressing himself to every passage in Bayle's writings which interested him, Leibniz often repeated himself, and it is not always easy to see what, if any, order he employed in parts Two and Three of the Theodicy, other than the order which was provided by the transitions from one topic to another, which were in themselves an indication of the "dialogue" in which he was in effect engaged.

In one respect Leibniz might be said at first sight to be more of a "Christian" theologian when he is thinking about the world than Bayle can be seen to be, since one could not discover from Bayle's writings whether he had a Christology that made any difference to his "Theodicy". Bayle's major theological principle was presumably related to revelation in the sense that it was derived from reflection on the New Testament and on the whole achievement of Christian theology, though he rarely discussed such material in his Dictionary. Leibniz did make some attempt to cope with both Old and New Testament problematic passages about man's moral evil in relation to what he has to say about God,²⁴ although ultimately for Leibniz, man's moral evil like other "evil" could be fitted into the plan God had of the

sequence of creation, "than which none can be better conceived."²⁵ And Leibniz invoked Pauline material for a purpose different from Bayle's, for Paul's words on the depths of the divine wisdom were not for Leibniz an invitation to abandon the attempt to understand what we can hold by faith, but an invitation to proceed further with our investigation of reality.²⁶ The important material here would be the Christological material, -and when one looks to see whether the Theodicy had a Christocentric character one finds that Leibniz saw Christ as the best of philosophers, the culmination of a line that began with Moses. Christ had greater authority, and added to what Moses had said, the teaching that souls were immortal and the wish that men would love God as well as fear him.²⁷ Christ inspired sublime thoughts in people who were "well satisfied with Nature and with Fortune," who were for Leibniz preferable to those who were discontented.²⁹ Leibniz gave a minimal place to the sufferings of Christ on the cross,³⁰ but none to the resurrection, and it would be difficult to see how a theology of "harmony" could employ "resurrection". Christ for Leibniz could be described as redeemer and mediator, and the one who took human nature upon himself to expiate man's sin, the disorder man brings upon himself by his sin being often manifested in his physical suffering. To that extent it would seem that he took one distinctive feature of Christian doctrine into account. Barth also wrote that it was to Leibniz' credit that he at least once found a place for "looking at creation through the message of Good Friday and Easter",³¹ in the Latin scholastic summary at the very end of the Theodicy,³² but omitted in Farrer's edition of the whole work as not

likely to be of interest to many modern readers.³³ As Barth said, "it is in relation to Christ, to His position as Member and Head of creation, as Lord and Saviour and Hope of the world, that God chose this world as the best; and it is in the divinity and humanity of Christ that we are to recognise the maxima ratio as the supreme principle of the perfection of the universe and therefore of the perfection of God himself."³⁴ Leibniz' thinking here would seem to have been akin to that of Duns Scotus, who maintained an optimistic view of nature, "bound to the theology of Creation",³⁵ and who developed on that basis a view of the Incarnation as the crown of the doctrine of creation. Knowles writes of Duns Scotus that he maintained that God first of all loves himself; then he desires to love and be loved by others; finally he desires to be loved by the One who can love Him to the limit, and so he willed from all eternity the union of His Son with the created nature that was fitted so to love Him.³⁶ Leibniz did indeed write of Christ, "He is the eternal Son of God, even as he is his only Son; but ... having taken upon him at first, from the beginning of things, the most excellent nature among created beings, to bring them all to perfection, he set himself amongst them: and this is the second filiation, whereby he is the first-born of all creatures." Unfortunately this sentence is part and parcel of what Leibniz describes as "a theology well-nigh astronomical", a piece of theological fiction which in the Theodicy at least he rejected.³⁷ So one must conclude with Barth that whilst optimism even at its best did not altogether lack the knowledge of Jesus Christ, it did not know what to do with that knowledge.³⁸ The

Theodicy, therefore, is not Christocentric, but theocentric, yet without being an obviously direct reflection on scripture, despite its verdict being one that "verbally corresponds so closely to the Christian verdict".³⁹ (One may say that it is a characteristic of the "Theodicy" that will be examined in the course of this discussion, that it is theocentric, but never Christocentric. Leibniz determined the pattern of discussion with regard to this point, as with so many others.)

Leibniz' view of things was of a reality which, contrary to Bayle, was not contradicted by the Christian "idea" of God but which rather could be experienced and appreciated by man as an ordered goodness, a creation worthy of the God of faith. The world was not in itself a sufficient object of attention, but physical reality provided the data on which the mind reflected in order to understand certain principles, and in the light of these the world could be adequately described in a way which would give delight and satisfaction. To look at "the structure and economy of the universe"⁴⁰ was but a preliminary which would lead to man's recognising things in all their intelligibility, in relation to the mind of God. To "see" was to know a priori by "cause"⁴¹ for "the mind is elevated by true reason to that which to us is invisible, but none the less sure."⁴²

To view the world in relation to the mind of God implies a confidence in the power of human reason of a kind which now seems impossible to sustain. For Leibniz, however, such confidence was

integral to giving assent to the principle of the rationality of God, for man's rationality is a perfection "shared" with God, from whom it is derived. Man's reason differs from God's "as a drop of water differs from the ocean",⁴³ but "the perfections of God are those of our souls".⁴⁴ So Leibniz could speak of "a close contemplation which grants us an enjoyment, so to speak, of the vision of the ideas of God."⁴⁵ Faith, on this analysis, is the issue of the exercise of reason, for it is the "assurance ... wherewith we can and ought to say that God has done all things well."⁴⁶ There is an area of "mystery", truth ultimately above man's reason, such as "the miracles reserved for God alone, as for instance, Creation; such is the choice of the order of the universe, which depends upon universal harmony, and upon the clear knowledge of an infinity of things at once."⁴⁷ But given man's capacity to reflect on the truth of things, he can think through to the eternal verities, which include first of all those truths which have a logical, metaphysical, or geometrical necessity, which cannot be denied without contradiction.⁴⁸ He can further analyse reality in terms of the principle of efficient causality,⁴⁹ and this leads him to realise that the existence of things as they are is not determined solely by logical reason, but by other considerations, both moral and teleological which can also be seen to be included in the concept of the "eternal verities". More specifically, the principle of determinant reason,⁵⁰ the principle of the best, was for Leibniz a simple but fruitful means of explaining why the things that now exist are what they are and why they occupy their place in the scheme of things.⁵¹ It is the foundation of "an infinitude of very just and very profitable arguments".⁵² Its

application will eliminate any appearance of instability in the world, and any hint that anything exists "by chance" and is not controlled by God's creative providence. His attempt to see the world as an intelligible spectacle, in some sense as God sees it, results in his producing a kind of "explanation" of God in relation to "theodicy" which was to perplex Kant for years, until he found a philosophical stance which enabled him to repudiate Leibniz' enterprise, though not his optimism.

Leibniz' God delights in his own self-sufficiency, for "his bliss is ever perfect and can receive no increase, either from within or from without."⁵³ In designing to create the world, he "purposed solely to manifest and communicate his perfections in the way that was most efficacious, and most worthy of his greatness, his wisdom and his goodness."⁵⁴ It is especially true that goodness will characterise his creatures, for "God, as well as every wise and beneficent mind, is inclined towards all possible good, and ... this inclination is proportionate to the excellence of the good."⁵⁵ This appetite to produce what is excellent results in the production of the world, "the whole succession and the whole agglomeration of all existent things".⁵⁶ The love of the best is for Leibniz "the only impulse whose very exercise is absolutely infinite",⁵⁷ and if God did not make the best world, "he would not himself be satisfied with his work, he would blame himself for its imperfection; and that conflicts with the supreme felicity of the divine nature."⁵⁸

God's goodness is the perfection of one of the three principles of the divine nature, will, understanding and power.⁵⁹ Just as God's will, with its perfection of goodness,⁶⁰ in relation to creation is determined by the best, so his understanding, with its perfection of wisdom, guides him "to produce as much reason and knowledge in the universe as his plan can admit."⁶¹ God's consideration of the "ideas" which have their source "in" him⁶² is an important matter for Leibniz. Leibniz does not endeavour to describe how God forms or thinks the vast range of ideas, all of which he thinks distinctly all the time,⁶³ but maintains only that "the choice of the order of the universe" depends first of all upon "the clear knowledge of an infinity of things at once".⁶⁴ God's vision of unlimited possibility includes his being able to think of the "possibles" intensively, making "infinitely infinite combinations"⁶⁵ of them when considering the pattern of his creation. In other words he calculates and ponders on the best sequence of things, a whole set of creatures at once. His idea of one thing is brought to bear on his idea of another, for "each thing as an idea has contributed, before its existence, to the resolution that had been made upon the existence of all things".⁶⁶ It is in connection with God's sifting of the "possibles" that Leibniz reaches a crucial point in his attempt to construct a theodicy. He is clear that what he is offering is a re-interpretation, in a sense, of Platonism, and he therefore notes that "the Region of the Eternal Verities must be substituted for matter when we are concerned with seeking out the source of things". He is consequently forced to say, that God's understanding "furnishes the principles of evil, without being sullied by it, without being evil; it represents

natures as they exist in the eternal verities; it contains within it the reason wherefore evil is permitted".⁶⁸ So of the possibles Leibniz writes that God "penetrates them, compares them, weighs them one against the other, to estimate their degrees of perfection or imperfection, the strong and the weak, the good and the evil."⁶⁹ What God seeks is a "compossible" sequence of ideas, which means that not all the possibles will be actualised, not because some of them are unquestionably "evil", but because they are not all compatible in one world order.

Clearly, it is Leibniz' understanding of this concept of "the region of the Eternal Verities" which is fundamental to his "defence" of God, and his explanation of how it is that God tolerates what seems to men to be outrageous and detestable. The status of the eternal verities in relation to God is ambiguous. Whilst they are in some undefined sense not identical with any of the principles of the divine being, it is on the other hand not appropriate to speak of them as created. They have no existence which could be said to be independent of God either before he considers them or in order that he may consider them. They are nevertheless meant to represent that which is right and valid for every possible world irrespective of whether God creates anything to correspond to them, i.e. truths which cannot be denied without contradiction. They are also, as already indicated, characterised by "value" as well as by logical necessity.⁷⁰ The values that are maintained by Leibniz are those which are derived from his analysis of "the principles of morals under terms that imply an obligation."⁷¹ It

is "justice" that helps to interpret the meaning of God's goodness.⁷² Riley⁷³ draws attention to the importance of this for Leibniz and writes of Leibniz' view of justice as charity tempered by a knowledge of what is deserved.⁷⁴ Charity, Riley maintains with reference to many of Leibniz' writings, is a habit of loving. Loving is understood as a feeling of perfection in others, perfection being both the cause of love and the reason that regulates that love.⁷⁵ God's generous benevolence, which Leibniz advocates for men in imitation of God, is inevitably an active benevolence. This raises a problem for Leibniz in that a justice which is the result of rationally informed choice, and the action consequent upon that choice is not altogether consistent with his notion of "harmony" in so far as he interprets that in terms of proportion, of "ratios as precise as any in mathematics".⁷⁶ Consistency would require that all the eternal verities would have to be of the first group mentioned above -- i.e. those truths which cannot be denied without contradiction. But as Riley points out, "a justice of harmony and proportion alone presupposes an aesthetic passivity which fails to take Christian voluntarism into account". As we have seen, justice is not simply a relation but an action, and action for Leibniz is an activity of a being whose choice of the best has been rationally determined by the best that is in view.⁷⁷

A serious problem here is the question of whether or not Leibniz so describes the next "stage" in God's deliberations as to result in his offering a re-construction of manicheism in his efforts to cope

with the problem as Bayle set it. In a sense it reflects the religious courage of those who cannot, and would not wish to deny the presence of evils in the world. Such men are bold enough to attribute them to God in some sense, as part of the consequence of belief in him as omnipotent creator, and yet want to maintain that the word "good" when used of God is not purely equivocal. Perhaps this was Leibniz' way of coping with what seems to have been one of Bayle's major points - that a priori argument alone was without force when confronted with the facts of physical evil. Certainly Leibniz is not trying to defend an a priori argument which would purport to show that evil was impossible in a world which was God's work. The reverse is true - what he offers is an a priori argument which maintains that evil, understood in a certain kind of way, is necessary to a world which is God's work. What is involved in God's deliberation leading to the choice of the best sequence is the interaction of the principles of God's being with the region of the eternal verities and the consequent production of the universe, since the eternal verities regulate divine as well as creaturely thought and action. Leibniz' difficulties are evident when he writes that "as soon as God has decreed to create something there is a struggle between all the possibles, all of them laying claim to existence, and that those which, being united, produce most reality, most perfection, most significance carry the day." The position is hardly helped when he immediately endeavours to avoid the "region" metaphor and goes on: "It is true that this struggle can be only ideal, that is to say, it can only be a conflict of reasons in the

most perfect understanding, which cannot fail to act in the most perfect way, and consequently to choose the best."⁷⁸ But he usually writes as though God's choice of the best is determined by something other than himself. He writes as though the "possibles" are their own reason for actualisation, when considered as included in a particular sequence or system as compared with other sequences. This is despite his having also to maintain that the essences do not contain within themselves their own springs of productive power and self-movement, which are the marks of a created being, separate from the being of God. He could also be criticised with some justice even at this stage, for including in the very concept of godhead the conflict between originative principles which was characteristic of Manicheism. There seem, indeed, to be two kinds of conflict going on in connection with God's creative activity. One is the conflict among the possibles, and the other, to be looked at shortly, is a conflict in the very will of God, and this especially lends weight to the accusation that what he is offering is a kind of manicheism. The fact that there is any conflict is what makes the difficulty, and it is reasonable to ask whether Leibniz ever satisfactorily resolved the problem he set himself. It is questionable whether any resolution of the problem as he poses it is possible, and whether he would not have done better to abandon the discussion when it reached this particular stage of intractability. (Both Bayle and Kant refused to attempt to cope with the problem as Leibniz saw it.) To conclude the description of what he says about the conflict amongst the possibles, one must also notice that Leibniz has both to deny that he must admit

"a brute and blind necessity in the cause of the existence of things"⁷⁹, and assert that God acts from necessity. This alone guarantees the goodness of the world and will silence those who think that God could have done better. The necessity which determines God is a "happy" or "moral" necessity. "God chose between different courses all possible: thus, metaphysically speaking, he could have chosen or done what was not the best; but he could not morally speaking have done so."⁸¹ So freedom for Leibniz is not the licence to be unreasonable,⁸² but to be wise enough to will only the good, and powerful enough to give effect to that will. "The wise mind wills only the good: is it then a servitude when the will acts in accordance with wisdom? And can one be less a slave than to act by one's own choice in accordance with the most perfect reason?"⁸³

And of God he writes:

For either God will act through a vague indifference and at random, or again he will act on caprice or through some other passion, or finally must act through a prevailing inclination of reason which prompts him to the best. But passions, which come from the confused perception of an apparent good, cannot occur in God; and vague indifference is something chimerical. It is therefore only the strongest reason that can regulate God's choice. It is an imperfection in our freedom that makes us capable of choosing evil instead of good, a greater evil instead of the lesser evil, the lesser good instead of the greater good. That arises from the appearances of good and evil, which deceive us; whereas God is always prompted to the true and the greatest good, that is, to the absolutely true good, which he cannot fail to know.⁸⁴

God is therefore essentially free either to create or not to create, and effectively free in that there is no imbalance between his knowledge and his power.⁸⁵

God's toleration of such evils in the world is therefore not to

his discredit, and Leibniz' boldness in being prepared to make this point at least protects him from the charge of offering a facile optimism. For the moment one can note one important analogy he offers as an alternative to some of Bayle's to help his readers, though he knows how dangerous such analogies can be. Leibniz considers that

there are cases where one will justifiably prefer beauty of construction in a palace to the convenience of a few domestics. But I admit that the construction would be bad, however beautiful it might be, if it were a cause of diseases to the inhabitants; provided it was possible to make one that would be better, taking into account beauty, convenience and health altogether. It may be indeed, that one cannot have all these advantages at once. Thus, supposing one wished to build on the northern and more bracing side of the mountain, if the castle were then bound to be of an unendurable construction, one would prefer to make it face southward.⁸⁶

What this means in terms of an explanation of God's toleration of evil in his original creative act, emerges in his distinguishing a three-fold function of God's will. The result of this distinction is to make evil an integral part of the pattern of things, though Leibniz is somewhat uneasy with the result of his discussion. He distinguishes between God's antecedent, mediate, and consequent will. God's antecedent will considers "each good separately in the capacity of a good".⁸⁷ Acts of his antecedent will are described as "love of virtue and hatred of vice, which tend in an undefined way to bring virtue into existence and to prevent the existence of vice".⁸⁸ To produce the decision on the basis of a defined choice seems to be the function of the "mediate" will, which operates at an intermediate stage between God's consideration of things separately and his willing

the best sequence into existence.⁸⁹ At this stage in the creative programme God compares all the possible combinations of essences and chooses the best sequence. He thereby excludes an infinite number of essences from actualisation and opts for a sequence in which there is a concomitance⁹⁰ of what is good, to which God is "antecedently" attracted, together with some of the essences from which he is antecedently averted. "The supreme goodness of God causes his antecedent will to repel all evil, but moral evil more than any other: it only admits evil at all for irresistible superior reasons, and with great correctives which repair its ill effects to good advantage."⁹¹ Of his "decree to create the best"⁹² Leibniz writes: "Success entire and infallible belongs only to the consequent will, as it is called. This it is which is complete; and in regard to it this rule obtains, that one never fails to do what one wills when one has the power. Now this consequent will, final and decisive, results from the conflict of all the antecedent wills, of those which tend towards good, even as of those which repel evil; and from the concurrence of all these particular wills comes the total will."⁹³

Despite the conflict in the region of the verities, and the conflict in the will of God in relation to the verities, there are no flaws in the actual production of the world. "It is therefore not to be wondered at that he who penetrates all things at one stroke should always strike true at the outset; and it must not be said that he succeeds without the guidance of any cognition. On the contrary, it is because his knowledge is perfect that his voluntary

actions are also perfect."⁹⁴ The flawless production of the world depends upon the exercise of God's power, the third principle of God's being, on the basis of which the other two have their efficacy. Power "precedes even understanding and will, but it operates as the one displays it and the other requires it."⁹⁵ It is indeterminate, and God's goodness and wisdom combined determine him to produce the best.⁹⁶ Leibniz emphasises this when he writes, "I set no bounds to God's power, since I recognize that it extends ad maximum, ad omnia, to all that implies no contradiction; and I set none to his goodness, since it attains to the best, ad optimum."⁹⁷

To conclude what he has to say about God's power, one may return to his analogy, where he writes that God is

like a great architect whose aim in view is the satisfaction of the glory of having built a beautiful palace, and who considers all that is to enter into this construction: the form and the material, the place, the situation, the means, the workmen, the expense, before he forms a complete resolve. For a wise person laying his plans cannot separate the end from the means; he does not contemplate any end without knowing if there are means of attaining thereto.⁹⁸

One may note in passing that since actual existence is not an essence which God "saw" in the region of the eternal verities and, as it were, added to a sequence of essences,⁹⁹ God's creative act of will rather transposes the chosen sequence into a new mode of being, separate from the existence which he himself enjoys, and this therefore defines the chosen sequence as "imperfect". "Existence" is not finally intelligible to man because of its necessary connotation of "imperfection". This coheres with the other way in which it is not intelligible, which arises from Leibniz' more a posteriori

description of the world. From neither an a priori approach nor from the a posteriori description of things which coheres with that a priori view will Leibniz concede a point to anyone who wishes to argue that it is by no means clear that the existing world is all right because of the evils found in it. He wants to maintain, that it is all right, despite what seem to us to be outrageous evils, - not that it has been all right, has gone wrong, and will be put right again; nor that it is not all right but will be made so at some future time. With regard to this very last point he may be said to leave himself some loopholes, which will be looked at later, though he can hardly make much of them in the light of what he maintains as the major point of his defence of God. They do, however, reflect his uneasiness with the results of his a priori analysis of God's will in particular, and of that will in relation to the eternal verities.

When one turns to the ancient tradition which Leibniz inherited and re-phrased, of a way of looking at the world a posteriori rather than a priori, which suited both the contemplative and the scientist for a time, one finds that it has been discussed by A.O. Lovejoy,¹⁰⁰ and so far as the medieval period is concerned even more helpfully by M.D. Chenu.¹⁰¹ The latter quotes A.J. Festugière, writing that

the world is truly an 'order', a kosmos. To be sure, disorder is found within it, not, however, as an essentially evil thing, but only as a lesser good. There could be no 'order' without a multiplicity of beings, each consequently limited; or without a diversity of beings, each consequently endowed with a greater or smaller share of goodness. If, therefore, one considers only a part of the whole, one necessarily discovers limits or privations of goodness, disorders. But this is precisely because one is looking only at a part,

not the whole. If one makes the effort to comprehend the whole into a single view, the disorder disappears; it becomes explicable within the whole and becomes absorbed into the total order. Always look to the whole - such will be the ¹⁰²rule of this self-consciously optimistic philosophy.

If one did not know that one was reading Chenu's book about the developing twelfth-century medieval European understanding of the world one would think that one had come upon an apt description of the view of things found in the Theodicy.

With regard to Leibniz: "looking to the whole" one must acknowledge that for him the a posteriori examination of the things in the world is a mere preliminary to his examination of things which *might* lead to our being able to recognise them in all their intelligibility, because for him the distinct knowledge which is satisfying is not of the material and changeable, but of the causes or principles of things, of "what is always". To describe the world in terms of an a posteriori design theology is merely to "believe", to judge by effects, ¹⁰³ in contrast with "seeing" which is to know a priori, by cause. For him, the true correlation of the intellect with the world to produce a satisfactory justification of God would involve carrying on thinking a priori, in other words in terms of his "monadology". In these terms one finds that things are pre-established by God to exist in harmony with one another as a single whole, composed as they are of an infinity of individual substances or "monads" variously arranged so as to represent to the human mind the variety, order and beauty we acknowledge. Leibniz' vital clue to the construction of

this a priori intelligible world is rational human self-conscious individuality. Given the text of the Monadology it is perfectly possible to work through the text of the Theodicy and put together the material which one recognises as corresponding to the Monadology. It must be said that in the Theodicy this material is somewhat in the background and appears there as an accidental result of Bayle's interest in this area of Leibniz' philosophy. So although Leibniz would finally want to rest his case on his demonstration of nature as made up of individual substances arranged to form the hierarchy of being, thereby understanding the world in detail as a world worthy of God, one sees that in the Theodicy this is not the kind of justification of God of which Leibniz preferred to make use in this "public" work. One would have to say of him that he has rather had recourse to what for him are inevitably more superficial arguments, a posteriori arguments.¹⁰⁵ It is also clear from reading the work of some of Leibniz' great critics on "theodicy" that the material with which they were primarily concerned was his discussion of God's perfections and his a posteriori argument rather than with his "monadology".

With regard to his a posteriori argument, as with his a priori argument, one finds that it is closely underpinned by his trust in God at points where argument could do no more. In the light of what he has said about the "concomitance" of the possibles God has chosen, Leibniz can therefore emphasise the evidence of the co-existence of things. "For it must be known that all things are connected in each one of the possible worlds: the universe, whatever it may be, is all of a piece, like an ocean: the least movement

extends its effect there to any distance whatsoever, even though this effect becomes less perceptible in proportion to the distance."¹⁰⁶ The harmony of things leads him to say that God is therefore "infinitely more skilful than a watchmaker, who himself makes machines and automata that are capable of producing as wonderful effects as if they possessed intelligence."¹⁰⁷ God has made of matter "the most excellent of all possible machines"¹⁰⁸ but it is neither a machine properly speaking,¹⁰⁹ nor does God abandon it to its own devices. Leibniz maintains that "there is organism everywhere in a matter whose disposition proceeds from God",¹¹⁰ and the nature of every creature is that "which God conveys to it in creating it always".¹¹¹ This relationship of dependence Leibniz will also describe as "continued creation"¹¹² maintaining that "God gives ever to the creature and produces continually all that in it is positive, good and perfect, every perfect gift coming from the Father of Lights."¹¹³

There is a rich variety of creatures in God's world, which is also a reflection of God's ingenuity and wisdom. "To multiply one and the same thing only would be superfluity, and poverty too. To have a thousand well-bound Vergils in one's library, always to sing the airs from the opera of Cadmus and Hermione, to break all the china in order to have cups of gold, to have only diamond buttons, to eat nothing but partridges, to drink only Hungarian or Shiraz wine - would one call that reason?"¹¹⁴

The variety of things is ordered hierarchically, however.

"There are degrees among creatures. The general order requires it."¹¹⁵ To quote Chenu again: "The key to the understanding of the universe and of man in the universe, was taken to be the ordered, dynamic, and progressive chain of all being, -- a chain in which causality and meaning fall together, and in which each being is a 'theophany', a revelation of God."¹¹⁶ What Leibniz understands by the "chain" of things he spells out by saying that "The connexion and order of things bring it about that the body of every animal and of every plant is composed of other animals and of other plants, or of other living and organic beings; consequently there is subordination, and one body, one substance serves the other: thus their perfection cannot be equal."¹¹⁷ The division of the continuum to infinity¹¹⁸ as he puts it, ensures that he can rule out a defect which would be called the "vacuum formarum, a gap in the order of species."¹¹⁹ It is not normally necessary to refer to Leibniz' criticism of other works on theodicy in order to elucidate his own, but it is perhaps worth noticing that he does not commit himself to the "doctrine" of the fixity of species in the main text of the Theodicy, a doctrine which was soon to become so important for the understanding of "nature". But he does say in passing in his discussion of King's book, that "God, having taken care that the species should be immortal, since the individual cannot be so here on earth"¹²⁰ However, one might say that to maintain that a species will always be identifiable as such does not absolutely exclude the possibility that there might be changes in some of its members so that new species develop. There are hints in the Theodicy that Leibniz could be understood as having

seriously considered this possibility, but they are only hints, and one must see them rather in relation to his optimistic faith than to a theory to which he has been driven by his assessment of evidence in the biological field.

A reading of Chenu once more makes it clear that Leibniz is very much a representative of a rich and influential tradition of interpretation. Chenu writes of the continuity of beings that it is "at once dynamic and static in principle. Between each of these beings in their separate ranks exists an intimate bond: the greater intensity of the superior being exerts an attractive force upon the one next below it and draws it upward toward its own higher level; and out of this attraction arises the fulfilment of the lower being ... We are far from a discontinuous universe in which each being possesses its dynamism and intelligibility wholly and only within itself ... Such continuity in the universe does not compromise the intrinsic law operative at each level, the proper autonomy of each being: it does not infringe the purity of natures of essences."¹²¹ When one returns to the Theodicy one finds that Leibniz picks up part of one of Bayle's discussions with an opponent about whether creatures are "eternally, immutably and essentially as perfect and as good as they can be".¹²² Leibniz insists that things are different in their degree, i.e. in their place in the hierarchy of things, but will not conclude from that that "a thing cannot change its kind in relation to good or evil". So he can say, "Thus the best may be changed into another which neither yields to it nor surpasses it; but there will always be an order among them, and that the best order possible."

Whereas the whole sequence may be the best possible, "what exists through the universe in each portion of time" may not be the best. "It might be therefore that the universe became even better and better, if the nature of things were such that it was not permitted to attain to the best all at once." But he concludes, "these are problems of which it is hard for us to judge"¹²³, as Kant was also to agree in some of his earliest works. Later on in the work, writing of the perfection of man, Leibniz says, "It is perhaps not impossible that there be somewhere a species of animals much resembling man and more perfect than we are. It may be even that the human race will attain in time to a greater perfection than that which we can now envisage. Thus the laws of motion do not prevent man from being more perfect: But the place God has assigned to man in space and in time limits the perfections he was able to receive."¹²⁴

This sort of material in itself could hardly count as evidence for Leibniz' having done more than merely toy with the idea that "kinds" are mutable. On the other hand he does not commit himself to maintaining that the security and stability of his best sequence entails that species should be immutable, though this later seems to have become an integral feature of a world view which attempted to structure a theodicy in relation to its biology. Leibniz is committed in the first instance to a priori convictions about God and his perfections, rather to particular bases for those convictions which have been extrapolated from an examination of the empirical world.

One can see this more clearly when one looks at the biological theory with which he worked, that of "preformationism", of which Loemker remarks that it was "a special case of his logical determinism". This determinism "precluded his advance to a conception of the unfolding of the forms of life, as genetic determinism still conflicts with evolution."¹²⁵ Jacques Monod¹²⁶ writes particularly well with reference to this last point and more helpfully in that he accounts, in effect, for the strength of the notion of the fixity of species, in terms of its biological validity. He provides a useful perspective on those who have at times been only too ready to criticise great theoreticians and theologians of the past for not having committed themselves to some form or other of *the notion* of mutability of species as it may be understood today. One must, however, suppose that Leibniz meant by "preformation" something that was not absurdly inconsistent with his concept of "the division of the continuum to infinity", though it is no doubt true that other thinkers later meant by preformation "a mechanistic explanation for the fixity of species and the impassibility of the discontinuities between them".¹²⁷ It was not to become known for some time that Leibniz was prepared to allow movement within his continuum such that the phrase mutability of species *might* be appropriate to it, though what he says in the Theodicy in effect leaves him room for that.

He makes it clear, for example, that whilst the universe as a whole is stable, its stability is not displayed in a rigid pattern,

since it is essentially organic in character, as has already been noted. The "primary seeds"¹²⁸ contained in bodies are such that "new organisms are only a mechanical consequence of a preceding organic constitution."¹²⁹ He maintains as his belief, "that those souls which one day shall be human souls, like those of other species, have been in the seed, and in the progenitors as far back as Adam, and have consequently existed since the beginning of things, always in a kind of organic body."¹³⁰ He is, however, reluctant to commit himself to any one particular theory as to how a sentient or animal soul becomes a human soul. When he eventually returns to this topic he has a statement which could be construed as leaving him at least in theory open to the possibility of transformation precisely on the basis of preformation:

As for the so-called creation of the accidents, who does not see that one needs no creative power in order to change place or shape, to form a square or a column, or some other parade-ground figure, by the movement of the soldiers who are drilling; or again to fashion a statue by removing a few pieces from a block of marble; or to make some figure in relief, by changing, decreasing or increasing a piece of wax? The production of modifications has never been called creation, and it is an abuse of terms to scare the world thus. God produces substances from nothing, and the substances produce accidents by the changes of their limits.¹³¹

Given 20th century insights into DNA and its replicative mechanism it is perhaps a pity that he did not think of "preformation" in terms of his metaphor about soldiers drilling into different formations, rather than in terms of his imaginary "sculptor". It is clear that his employment of substance-accident language is another way of saying what he also expresses by his use of "preformation". Further,

what he stresses in connection with "substance" is "action" - the striving peculiar to it, "called 'force', 'effort', 'conatus', from which action itself must follow if nothing prevents it."¹³² This sort of material seems to be relevant to the empirical-metaphysical analysis of creatures that corresponds to the striving amongst the possibles in God's understanding, before his choice of the best sequence for creation. The degree of striving proper to each creature is one of the characteristics which places it in its position in the hierarchy of being, because it relates to its degree of perfection. Hence Leibniz employs the Aristotelian term "entelechy"¹³³ and so can write, "And the qualities or derivative forces, or what are called accidental forms, I take to be modifications of the primitive Entelechy, even as shapes are modifications of matter."¹³⁴

What Leibniz says with regard to these various topics may or may not be judged to leave him in a position where at first sight he can be more favourably regarded as one taking sufficient notice of developments in biology to have his theodicy taken seriously. Unfortunately, his theodicy, so far as it is about physical evil, has undoubtedly to be seen as concerned first and foremost with what he has to say about God's perfections, and secondly with some traditional metaphysical "explanations" of physical evil. His biological theories, in so far as they appear in this particular work, cohere with his a priori theology rather than inform it in such a way as to cause Leibniz to change or abandon it. What one

sees later on in Kant in the first instance, and then during the course of the 18th to 19th century is the denial of the possibility of a theodicy in terms of God's perfections as Leibniz works it out, at about the same time as new patterns of explanation developed in biology. Curiously, many of the features of "Leibnizianism", which in so many ways was the expression of a whole religious culture, appeared again and again in the controversy over the Origin of Species. In that controversy two of the many issues were the commitment of theodicy to the notion of the fixity of species and the problem of physical evil as that was to be seen in an evolving and changing "biosphere".

It is quickly apparent that Leibniz' analysis of evil is at its weakest when he discusses it in terms of physical and metaphysical evil. One must say that he finds relatively little to concern him in the apparent distresses of the non-human world which seem to militate against the order and beauty of things, but he is perturbed by the evil perpetrated by human beings. His optimism would have survived the Lisbon earthquake as Kant's did for a time. Whereas Kant eventually reached a point where even the attempt to begin to construct a theodicy was impossible, especially one which assessed physical evil differently, he always shares both Leibniz' concern with human evil and his optimistic faith in God. In Kant faith found its expression in the form of hope for the future, and therefore of confidence of a sort in God in the present, rather than in terms of Leibniz' fascinated contemplative vision of the world teeming

with God's creatures in their hierarchy. Whilst Leibniz in some respects cuts man down to size in his estimate of his position and importance in the order of things,¹³⁵ he makes a revealing comment when he says that "an evil will is in its department what the evil principle of the Manicheans would be in the universe; and reason, which is an image of the Divinity, provides for evil souls great means of causing much evil. One single Caligula, one Nero, has caused more evil than an earthquake. An evil man takes pleasure in causing suffering and destruction, and for that there are only too many opportunities."¹³⁶

Metaphysical evil, as Leibniz understands it, provides the context for his discussion of moral evil which is his main pre-occupation as well as for the discussion of physical evil. Metaphysical evil is simply to fall short of divine perfection,¹³⁷ to be less wise, less good, less powerful than God - to be a creature. Leibniz briefly pays attention to the "explanation" of evil as "privation",¹³⁸ relating this to the scholastic description of evil as "deficient",¹³⁹ in order to rule out the possibility of giving some sort of "status" to the evil principle of the Manicheans. He develops at some length a "parable" about evil understood as "imperfection", of boats going downstream with the current, some more heavily laden than others, therefore travelling down river at varying speeds. The sluggishness and inertia of the various vessels are compared with the "natural imperfection" of creatures, essential to their location in the order of things.¹⁴⁰ This kind

of parable is particularly helpful when he comes to tackle the question of moral evil in so far as that can be attributed to ignorance, though such human frailty need not lead to offences against God. Human happiness and indeed virtue are only two of the many "goods" which attract God, and Leibniz is driven to say that "virtue" is not the only good quality of creatures. There are innumerable others which attract the inclination of God: from all these inclinations there results the most possible good, and it turns out that if there were only virtue, if there were only rational creatures, there would be less good.¹⁴²

From this point of view, the cause of physical suffering in men is first of all their own moral evil. "One suffers because one has acted; one suffers evil because one does evil."¹⁴³ Physical evil is a penalty established by God as part of the harmony of all things. Yet Leibniz has to face the problem of "innocent" suffering.¹⁴⁴ "It is true that one of ten suffers through the evil actions of others; but when one has no part in the offence one must look upon it as a certainty that these sufferings prepare for us a greater happiness."¹⁴⁵ But a more fundamental point that Leibniz was prepared to face is that according to his view of God's plan, it was essential that "there should not be lacking here on earth a rational animal clothed in flesh and bones, whose structure involves susceptibility to pain."¹⁴⁶ Leibniz stresses often enough that God could never be described as negligent or casual in his dealings with his creation, even with those parts of it which are not conscious of him: "God does not neglect inanimate things: they do

not feel, but God feels for them ... He would reproach himself for the slightest actual defect there were in the universe even though it were perceived of none."¹⁴⁷ God feels concern for animals also, though their pleasures and pain are not so keen as they are in man. According to Leibniz, it is reflection that makes pain a misery, and without it pain is inconsiderable.¹⁴⁸ But he comments: "When God justified to the Prophet Jonah the pardon that he had granted to the inhabitants of Nineveh, he even touched upon the interests of the beasts who would have been involved in the ruin of this great city."¹⁴⁹ His attitude is that since susceptibility to pain is a consequence of enjoying existence in a material universe, and since we have been given this kind of existence as a gift of God, we must conclude that to be without it would have involved the presence of a still greater evil, or of a greatly diminished capacity for pleasure. He writes of the "pleasures of the senses when these are mingled with that which borders on pain" - "A little acid, sharpness or bitterness is often more pleasing than sugar; shadows enhance colours; and even a dissonance in the right place gives relief to harmony. We wish to be terrified by rope-dancers on the point of falling and we wish that tragedies shall well-nigh cause us to weep. Do men relish health enough, or thank God enough for it, without ever having been sick? And is it not most often necessary that a little evil render the good more discernible, that is to say, greater?"¹⁵⁰ One may note, however, that Leibniz would probably prefer, like Kant, to be without the experience of both pleasure and pain so far as some of his remarks make his position plain.¹⁵¹

The very pain of physical creatures, together with monstrosities and apparent irregularities,¹⁵² is an indispensable feature of God's ordering of things. It is therefore not in itself, anymore than is anything else that could be cited, an indication that the world is not worthy of God as Leibniz believes him to be. Just as a mathematician can make sense of a series of apparently irregular numbers, and give the equation and construction of a twisting and turning line, so the order of creatures is within God's comprehension and intention.¹⁵³

Leibniz' brief references to the study of geology and astronomy, to which Kant also later turned his attention, make his point that even various disasters in fact were for the purpose of making the globe fit for occupation by man.¹⁵⁴ He does not, however, make the mistake of trying to account for every particular evil, except in so far as he remarks that it is sufficient for him "to point out that there is nothing to prevent the connexion of a certain individual evil with what is best on the whole". However, he does add that "This incomplete explanation, leaving something to be discovered in the life to come, is sufficient for answering the objections, though not for a comprehension of the matter."¹⁵⁵

He also endeavours to put evil as he understands it into perspective in an aesthetic sense. God turns everything, even human evil, to serve his ends. "God, by a wonderful art, turns all the errors of these little worlds to the greater adornment of his great world. It is as in those devices of perspective, where certain beautiful designs look like mere confusion until one restores them to the

right angle of vision or one views them by means of a certain glass or mirror. It is by placing and using them properly that one makes them serve as adornment for a room."¹⁵⁰ Though man cannot comprehend the pattern of things, he rationally says, "One must judge the works of God as wisely as Socrates judged those of Heraclitus in these words: What I have understood thereof pleases me; I think that the rest would please me no less if I understood it."¹⁵¹

When all has been said that can be said about the accidental damage of one physical being by another, and the perfections which sentient beings would lack if they were not also capable of suffering pain, and all that rational argument can do to maintain man's resources of patience and courage has been done, one may still have to ask a question which Leibniz clearly refuses to ask, or rather is prepared to dismiss as discreditable to us. The question is whether or not there are evils in the world which we cannot believe are approved by God, and which call into question the world's goodness and therefore God's credit. Leibniz' dispassionate judgement about the state of things ultimately depends upon what he has to say about the region of the eternal verities and the operation of God's perfections in creation. The questioning by Kant of the validity of that kind of description inevitably destroys the value of much of what he has to say about the place of evil in the scheme of things. Questions were to be asked about the conviction that human reason could arrive at a priori knowledge of God, and that the proper function of reason is the consideration of a priori

truths, in their relationship to God.¹⁵⁸ Confidence in human reason was thought to be integrally related to assent to the principle of the intelligibility of God. A reconsideration and re-assessment of that confidence so that human reason was more correctly related, perhaps, to inductive and empirical method, had to lead to another way of trying to construct theodicy or to the abandonment of any such project. It will later be possible to indicate, however, a number of the features of Leibnizian theodicy which appear and re-appear well into the nineteenth century debate about evolution and theology. These features show how the Theodicy provided the paradigm example of a work which not only summed up great traditions of thought of the past in relation to Leibniz' contemporaries' achievements in biology, but still informed the minds of those struggling with new patterns of explanation - patterns which could not so easily be shown to cohere with the kinds of theological thinking still current. Before turning to the work of Kant it is useful to look at Linnaeus' contribution to the setting up of the form of the nineteenth-century debate, and then at Hume's contribution to the dissolution of theodicy. Hume is important not only because of his influence on Kant, but because his particular kind of 'temper' was to prove extremely useful to men such as T.H. Huxley before they had had time to get to grips with what Kant was offering them. They might not have time to learn about Kant's kind of faith in God combined with a methodology which could have enabled them to cope better with the debate about the Origin, but a great deal could still be learned from Hume about a certain detachment concerning matters which it was hardly possible for man to decide.

Leibniz

- 1 A. Farrer, "Introduction", in Leibniz, Theodicy, p.34; cf. J. Delvolvé, Religion, Critique et Philosophie Positive chez Pierre Bayle, Paris: Alcan, 1906, pp.324-335; Wade, Intellectual Origins, p.614.
- 2 K. Barth, Protestant Theology in the Nineteenth Century: Its Background and History, trans. B. Cozens and J. Bowden, London: S.C.M. 1972, p.35. Cited as Barth, Protestant Theology.
- 3 Ibid., p.37, and cf. p.78. Cf. Stuart Hampshire, The Age of Reason: The 17th Century Philosophers, U.S.A.: Mentor, 1957, p.143-4; Wade, Intellectual Origins, pp.436-483; I. Leclerc, ed., The Philosophy of Leibniz and the Modern World, Nashville: Vanderbilt U.P., 1973, pp.3-12. Cited as Leclerc, Leibniz.
- 4 K. Barth, Church Dogmatics, trans. J.W. Edwards, O. Bussey, H. Knight, Edinburgh: T. & T. Clark, 1958, III:I, p.404-5. Cited as Barth, C.D.
- 5 W.H. Barber, Leibniz in France: From Arnauld to Voltaire, London: O.U.P., 1955, p.27f. Cited as Barber, Leibniz.
- 6 H.G. Alexander, ed., The Leibniz-Clarke Correspondence, Manchester: M.U.P., 1956, p.190, and p. ix. Cf. S. Clarke, Works, London: 1738, IV. A Collection of Papers which passed between the late learned Mr. Leibniz and Dr. Clarke in the years 1715 and 1716 Relating to the Principles of Natural Philosophy and Religion. Leibniz' and Clarke's letters were each printed in French with parallel text in English. Cf. F.H. Heinemann, "Toland and Leibniz", The Philosophical Review, LIV, (1945), 437-457, for information about another of Leibniz' discussions with an English theologian, with the Theodicy in effect concluding the conversations. Cf. Barber, Leibniz, p.94f; Wade, Intellectual Origins, pp.532-542.
- 7 C.F. von Weizsäcker, The Relevance of Science, London: Collins, 1964, p.122-3.
- 8 Loemker, Leibniz, p.56.
- 9 E. Labrousse, Pierre Bayle et l'Instrument Critique, Paris: Seghers, 1965, p.70. Leibniz, Theodicy, p.53, p.59.
- 10 Labrousse, Bayle, p.383.
- 11 K. Barth, Church Dogmatics, trans. G.W. Bramley & R.J. Ehrlich, Edinburgh: T. & T. Clark, 1960, III:III, pp.317-319. Cf. G.B. Shaw, Back to Methuselah, London: O.U.P., 1945, p. xxxi: "The contribution of philosophers from Plato to Leibniz was that they had kept the human mind open for the thought of the universe as

one idea behind all its physically apprehensible transformations."

- 12 J. Pieper, Leisure the basis of Culture, trans. A. Dru, London: Fontana, 1965, p.27-28.
- 13 Ibid., p.28. Cf. Hilary Armstrong, "Platonism", in Ian Ramsey, ed., Prospect for Metaphysics, London: Allen & Unwin, 1961, p.95, and Barber, Leibniz, p.89.
- 14 J. Collins, God in Modern Philosophy, London: Routledge & Kegan Paul, 1960, p.407. Cited as Collins, God. Cf. Barber, Leibniz, p.91.
- 15 Leibniz, Theodicy, p.59.
- 16 Ibid., p.163.
- 17 David Norton, "Leibniz and Bayle: Manicheism and Dialectic", Journal of the History of Philosophy, II, (1964), 23-27. Cited as Norton, "Leibniz". Cf. Popkin, Selections, "Rorarius", note L, p.246, and "Spinoza", note Q, p.317.
- 18 Clive James, Observer Review, 16 July 1972, p.30, reviewing F.R. Leavis, Nor Shall My Sword: "He has merely involved himself in a dualism, and all dualisms are philosophical mistakes in the end, although they can be highly productive of subsidiary argument until they reach the point at which discourse ceases."
- 19 Barber, Leibniz, p.17. Cf. Leibniz, Discourse on Metaphysics, trans. P.G. Lucas and L. Grint, 2nd ed., Manchester: M.U.P., 1961, p. xxi, on the "occasional" or political character of Leibniz' thought, and the remark that it is a trivialisation merely to deduce from this the idea that Leibniz never really meant what he said. Cited as Lucas and Grint, Discourse. Cf. L.E. Loemker, "Leibniz's Conception of Philosophical Method" and "The Ethical Import of the Leibnizian System", pp.135-157 and 207-223 of Leclerc. Leibniz.
- 20 Barber, Leibniz, p.36-7.
- 21 B. Russell, A Critical Exposition of the Philosophy of Leibniz, 2nd ed., London: Allen & Unwin, 1958, p.3.
- 22 Lucas and Grint, Discourse, p. xiv. Cf. H.W.B. Joseph, Lectures on the Philosophy of Leibniz, London: O.U.P., 1949, p.5. Cited as Joseph, Lectures. G.N. Rescher, The Philosophy of Leibniz, U.S.A.: Prentice-Hall, 1967, p.160. Cited as Rescher, Leibniz. L.W. Beck, Early German Philosophy, Mass.: Harvard U.P., 1969, p.240. Cited as Beck, German Philosophy. D. Emmet, "Theoria and the Way of Life", Journal of Theological Studies, N.S. XVII, Part I, (April 1966), 38-52, especially pp.50-52.
- 23 Leibniz, Theodicy, p.297, p.51-2, p.91, p.92, and particularly

p.119 where Leibniz wrote of being "charmed" by God's goodness .
Cf. Loemker, Leibniz, p.49.

- 24 Ibid., p.295f.
- 25 Ibid., p.301.
- 26 Ibid., p.206, p.238, p.289.
- 27 Ibid., p.50-51.
- 28 Ibid., p.54.
- 29 Ibid., p.131.
- 30 Ibid., p.125, p.130, p.168, and Farrer's "Introduction", p.9.
- 31 Barth, C.D., III:I, p.413. Cf. Barber, Leibniz, p.115-6, for the 18th century criticism of Leibniz' and Pope's work in relation to the doctrines of Incarnation and Redemption. Cf. C.A. Moore, "Did Leibniz Influence Pope's Essay?", Journal of English and German Philology, XVI, (1917), 84-102.
- 32 G.W. Leibniz, Die Philosophischen Schriften, ed. C.I. Gerhardt, Hildesheim: Olms, ¹⁹⁶¹VI, 437-462.
- 33 Leibniz, Theodicy, editor's note p.443.
- 34 Barth, C.D. III:I, p.413. Cf. Leibniz, Theodicy, p.104, "We should, moreover, be content to say that the Incarnation is the closest union that can exist between the Creator and the creature."
- 35 P. Vignaux, Philosophy in the Middle Ages, trans. E.C. Hall, New York: Meridian, 1959, p.212.
- 36 D. Knowles, The Evolution of Medieval Thought, London: Longmans, 1962, p.308.
- 37 Leibniz, Theodicy, p.133. Cf. C.A. Van Peursen, Leibniz, trans. H. Hopkins, London: Faber, 1969, comparing Leibniz and Teilhard de Chardin. Cited as Van Peursen, Leibniz.
- 38 Barth, C.D., III:I, p.413.
- 39 Ibid., p.404.

- 40 Leibniz, Theodicy, p.252.
- 41 Ibid., p.98.
- 42 Ibid., p.120.
- 43 Ibid., p.107.
- 44 Ibid., p.51; p.215, p.75.
- 45 Ibid., p.277; p.284, p.99.
- 46 Ibid., p.95; p.96.
- 47 Ibid., p.88; p.101, p.108-9, p.118.
- 48 Ibid., p.74; p.299.
- 49 Ibid., p.106; p.124, p.170-1.
- 50 Ibid., p.147; p.279.
- 51 Ibid., p.257.
- 52 Ibid., p.148.
- 53 Ibid., p.264; p.226.
- 54 Ibid., p.164. Cf. p.412 on King's book: "He wished to communicate himself at the expense of a certain fastidiousness which we assume in God, imagining that imperfections offend him."
- 55 Ibid., p.165; p.328, p.136.
- 56 Ibid., p.168.
- 57 Ibid., p.188.
- 58 Ibid., p.253.
- 59 Ibid., p.217; p.164, p.187, p.202.
- 60 Ibid., p.136, p.127.
- 61 Ibid., p.189.
- 62 Ibid., p.146, p.246, p.353, p.326, p.135.
- 63 Ibid., p.198.
- 64 Ibid., p.88; p.341.

- 65 Ibid., p.267.
- 66 Ibid., p.128. Cf. L.E. Loemker, "Leibniz' Doctrine of Ideas" in Leclerc, Leibniz, p.28-51.
- 67 Ibid., p.136.
- 68 Ibid., p.217.
- 69 Ibid., p.267; p.149, p.341.
- 70 Ibid., p.24; p.242, p.195, p.238, p.352-3.
- 71 Ibid., p.243.
- 72 Ibid., p.238.
- 73 P. Riley, The Political Writings of Leibniz, London: C.U.P., 1972.
- 74 Ibid., p.4.
- 75 Ibid., p.17-18.
- 76 Ibid., p.4.
- 77 Ibid., p.5.
- 78 Leibniz, Theodicy, p.253.
- 79 Ibid., p.229.
- 80 Ibid., p.236.
- 81 Ibid., p.271; p.61, p.148, p.268, p.272, p.345.
- 82 Ibid., p.318.
- 83 Ibid., p.269. Cf. Loemker, Leibniz, p.56, saying that for Kant, "as for Leibniz will is practical reason, and freedom is determination by the rational nature."
- 84 Ibid., p.319; p.303.
- 85 Ibid., p.272; p.323.
- 86 Ibid., p.262-3.
- 87 Ibid., p.136; p.299.
- 88 Ibid., p.266.
- 89 Ibid., p.189f; p.166.

- 90 Ibid., p.190.
- 91 Ibid., p.186.
- 92 Ibid., p.266; p.151, p.249, p.168.
- 93 Ibid., p.137. Cf. Norton, "Leibniz", p.30f.
- 94 Ibid., p.247.
- 95 Ibid., p.217; p.189.
- 96 Ibid., p.202.
- 97 Ibid., p.263.
- 98 Ibid., p.164-5; p.151-2.
- 99 Ibid., p.151. Cf. Van Peursen, Leibniz, p.180.
- 100 A.O. Lovejoy, The Great Chain of Being, New York: Harper, 1960. Cited as Lovejoy, Chain.
- 101 M.-D. Chenu, Nature, Man and Society in the Twelfth Century, trans. J. Taylor and L.K. Little, U.S.A.: Chicago U.P., 1968. Cited as Chenu, Nature.
- 102 Ibid., p.21. Cf. Leibniz, Theodicy p.191.
- 103 Leibniz, Theodicy, p.99. Cf. L.E. Loemker, "Leibniz and the Limits of Empiricism" in Leclerc, Leibniz, p.158-175.
- 104 Leibniz, The Monadology and other Philosophical Writings, trans. and ed. R. Latta, London: O.U.P., 1971.
- 105 Leibniz, Theodicy, p.304.
- 106 Ibid., p.128; p.303, p.159.
- 107 Ibid., p.245-6; p.66.
- 108 Ibid., p.201; p.364-5.
- 109 Joseph, Lectures, p.2. "No philosopher has more acutely criticised some of the common sense assumptions about bodies and space with which Science works; and no one has been more conscious of the difference between a developing thing and a machine." Cf. M. Hesse, Faces and Fields: The Concept of Action at a Distance in the History of Physics, London: Nelson, 1961, pp.157-163.
- 110 Leibniz, Theodicy, p.64; p.68, p.130.

- 111 Ibid., p.358; p.139, p.355-6.
- 112 Ibid., p.139; p.125, p.354.
- 113 Ibid., p.141; p.352.
- 114 Ibid., p.196; p.261-2. Cf. Lovejoy, Chain, p.293.
- 115 Ibid., p.193.
- 116 Chenu, Nature, p.23.
- 117 Leibniz, Theodicy, p.257.
- 118 Ibid., p.249; p.355. Cf. Van Peursen, Leibniz, p.52.
- 119 Ibid., p.131.
- 120 Ibid., p.414.
- 121 Chenu, Nature, p.24.
- 122 Leibniz, Theodicy, p.250.
- 123 Ibid., p.253-4; p.280. Cf. Lovejoy, Chain, p.261.
- 124 Ibid., p.330. Cf. Rescher, Leibniz, p.157, "Cosmic Evolution and Melioration."
- 125 Loekmer, Leibniz, p.37.
- 126 J. Monod, Chance and Necessity, p.117.
- 127 Bentley Glass, "The Germination of the Idea of Biological Species" in Bentley Glass, O. Temkin, and W.L. Strauss eds., Forerunners of Darwin: 1745-1859, Baltimore: Johns Hopkins, 1968, p.43. Cited as B. Glass, Forerunners.
- 128 Leibniz, Theodicy, p.64, p.157.
- 129 Ibid., p.65.
- 130 Ibid., p.173; p.361, p.157, p.172, p.245.
- 131 Ibid., p.360; p.359, p.309, p.352.
- 132 Ibid., p.170; p.180.
- 133 Ibid., p.69, p.170.
- 134 Ibid., p.170. Cf. Farrer's "Introduction", p.13: "'Entelechy' means active principle of wholeness or completion in an individual thing."

- 135 Ibid., p.189, p.248, p.188, p.163, p. 188, p.288, p.537.
- 136 Ibid., p.138.
- 137 Ibid., p.353, p.136, p.302, p.142, p.258.
- 138 Ibid., p.219, p.142, p.219 .Cf. Barth, C.D., III:III, pp.316-19.
- 139 Ibid., p.136, p.141.
- 140 Ibid., p.140-1.
- 141 Ibid., p.135.
- 142 Ibid., p.192.
- 143 Ibid., p.276; p.162, p.137, p.216, p.162, p.166.
- 144 Ibid., p.98, p.131.
- 145 Ibid., p.276.
- 146 Ibid., p.331; p.131, p.198.
- 147 Ibid., p.279; p.165, p.196.
- 148 Ibid., p.280-81.
- 149 Ibid., p.188.
- 150 Ibid., p.130; p.137, p.284, p.335.
- 151 Ibid., p.282, p.303, p.285, p.324, p.327-8, p.331.
- 152 Ibid., p.276, p.263, p.274.
- 153 Ibid., p.277; p.200, p.207, p.215.
- 154 Ibid., p.278.
- 155 Ibid., p.214; p.120, p.131, p.93, p.177, p.181, p.185, p.197.
- 156 Ibid., p.216.
- 157 Ibid., p.215.
- 158 Ibid., p.243, p.249.

C. Linnaeus and Hume

Leibniz seems to have exercised a degree of caution about committing himself to the notion of the "fixity of species". However, one conclusion which seems to have been drawn from the concept of the infinitely graduated sequence of things was that the sequence at all times must be complete, and that one ought to be able to trace out each step in the continuum. It ought to be possible to identify each particular species which God had created in order to make the world the "best", in terms of its diversity. The work of Linnaeus was of considerable importance in promoting the confidence that men could understand the way in which the creator had ordered living things. The method of Linnaeus was adopted by such naturalists as Gilbert White,¹ and through him a Linnaean style of nature study took firm hold in England (grafted on to existing interests in Botany and Zoology). It has been suggested that Darwin's Formation of Vegetable Mould through the Action of Worms², for example, is typically "Linnaean". It was to be particularly significant that the collections, correspondence and library of Linnaeus were eventually bought in 1784 by James Edward Smith, a young medical student from Norwich. It was he, together with Sir Joseph Banks, who was at one time president of the Royal Society and the Rev. S. Goodenough, later a bishop, who between them founded the Linnean Society in 1788, Smith becoming president of the Society until his death in 1828.³ Linnaeus was classed with people like Newton, Boyle and Locke as a friend to religion by English opinion of the late eighteenth century,⁴ as one who exemplified in

his life and writings reverence for the deity and a constant sense of the divine omnipresence.⁵ It is hardly surprising that his particular contribution to the understanding of nature should have been held in great esteem, though it is true that by the time of Hume's death it had become fashionable, as Gilbert White wrote to his brother, to despise Linnaeus in public, though many in private languished to understand his method.⁶ Linnaeus exemplified in his own approach to nature the religious attitude which was to provide for design theology a strength beyond that which could be provided for it by philosophical defence, and hence a strength that could survive the kind of philosophical criticism offered by Hume - a point of which Hume was himself well aware. Linnaeus wrote of man's awareness of the Creator's kingdom, that the more a man discovers about the world,

the many more new proofs he finds of the Creator's wise skill, and the more does he become obliged to admire and praise Him. From this we see how far the knowledge of nature leads us into moral theology itself, and how completely it depicts for us the Creator's magnificent work; the mountains are a proof of His might; the plants are a witness of His skill; the animals are the example of His providence; the whole of nature confirms that He is wise; and the entire world, that its Creator is a divine and Almighty Lord ...⁷

The "Foreword" that was included in editions subsequent to the first edition (1735) of Linnaeus' Systema Naturae also offered what could be described as a theological motive for the study of natural history. Linnaeus wrote that "From behind I saw the Eternal, All-knowing, and Almighty God as He went forward, and I swooned!. I tracked His footsteps over nature's field and marked in each one, even in those I

could hardly discern, an ineffable wisdom and might, and impenetrable completeness." And of the God in whose footsteps he believed himself to be following he wrote: "If one will call him 'Fate', one makes no mistake, because all things hang on his finger; if one will call Him 'Nature', one errs not, because everything comes from Him; would one call Him 'Providence', one is right, because all goes according to his beck and call" God for Linnaeus is the "Being who has founded and built all this, which shines everywhere before our eyes, without being able to be seen, and can only be seen in imagination, because such great Majesty resides on a sacred throne to which none can reach except the soul ..."⁸ Thus he could write elsewhere that "the contemplation of nature gives a foretaste of heavenly bliss, a constant joy to the soul and a beginning of its complete refreshment, and is the highest point of human happiness. When the soul partakes thereof, it is as it were awakened from a heavy torpor and wanders round in the light, losing itself, spending its time, so to speak, in a heavenly land or an earthly heaven."⁹

One need hardly suppose that when Darwin as an undergraduate went beetle-hunting that he was inspired with the Linnaean vision, but that vision had a good deal to do with the way in which educated Europeans were converted to the study of natural history, together of course with the "utilitarian" justification of it that was also available. It was for Linnaeus "ungodly" to say that God's work is useless. Even if what is discovered does not serve mankind either for food or medicine, the sheer inexhaustible variety of things

serves for man's delight. Each item of the creation, when examined and compared with others, exhibits God's "wisely decided purpose, which serves either for the animal's or plant's propagation or existence, or in respect to their neighbours' ... Everything lays clear the supreme wisdom of the Creator who has made nothing in vain, but so skilfully constructed everything, that no human art, not even the greatest, could imitate the least. And for this reason to assign all this to oblivion would be to admit that nature had cast her pearls before swine ..."¹⁰ His "naming" of what he studied was essential to his study and for the communication of what he had learned to others. "For if one describes a thing to me ever so carefully, I have no understanding and use from it, if he cannot name the thing he speaks about ... for it is impossible that that object can always accompany the description."¹¹

His search for coherence, the means to the rational and communicable expression of his vision, led him in his first edition of the Systema Naturae of 1735 to affirm that the number of species to be discovered in the world is the same as the number of forms created at the beginning of the world, and that no new species arise. He was prepared to indicate in another work of 1736 that he would prefer to side with those who doubted whether this kind of assumption could be proved. Although he was to eliminate from later editions of the Systema his theological defence of "species",¹² his original support for it, and the success of his method, continued to lend it great weight. What seems to have led him to abandon support for it in public was his

developing knowledge of botany in particular, and the way in which he came to interpret that knowledge. He used to believe that "there are today two distinct differences between the plants: one a veritable difference, the multiplicity produced by the Almighty's all-wise hand; but the other, variations in the outer shell, the work of nature in a moment of jest." The species of the Creator were the "true ones, and those of the gardner were the abnormal ones: the former I hold to be of the greater significance for the sake of their Originator; the latter I repudiate because of their originators. The former exist and have existed from the beginning of the world; the latter, which are monstrosities, can only boast a short life."¹³ Linnaeus' son was to write to one of his father's friends in 1778 that Linnaeus "believed, no doubt, that Species animalium et plantarum and that genera were the works of time: but that ordines naturales were the works of the Creator; if the latter had not existed the former could not have arisen."¹⁴

Like Leibniz, Linnaeus looked at the natural order of things without attempting to disguise from himself the reality of what he saw, and yet affirmed the harmony of the world, and the way in which it glorified its creator. In his Politia Naturae he described how he understood man, "nature's last and most distinguished servant" to be an instrument in keeping a "seemly balance" in nature, "so that nothing which is unprofitable may increase too much", in his destruction of other creatures for his own benefit. But of man he said that he too was subject to some natural laws to keep his numbers within bounds.

There was a war of all against all at every level of the animal kingdom.¹⁵ And in his Oeconomia Naturae he said: "The weapons with which the Lord of Nature has armed Himself are terrible: to the snakes, which he has cast on the ground like naked fish, without feet, wings or fins, and which might therefore most easily of all be destroyed, he has given their poisonous barbs ..."¹⁶ One of the Creator's masterpieces was the Lappland Reindeer's Gadfly,¹⁷ which caused the reindeer endless torment. God

has protected the delicate flies, and made them hairy like the Lapp in his jacket, that they might not freeze to death in these cold, northern, snow-covered mountains ... God has provided abundant nourishment for their young, the whole winter long, in the reindeer's warm blood, like a foetus in its mother's womb ... God has insinuated these wretched creatures into their winter quarters in an all too favourable manner, by placing them inside the skin and outside the muscles of the body, in a temperate place where there is neither too severe heat nor cold ... God has selected the reindeer's back for this purpose and not its flanks or belly, so that they cannot be crushed when the reindeer lies down!¹⁸

Theology was not be able to accommodate this kind of information, and the interpretation of it exemplified in Linnaeus' work could never commend itself to naturalists and philosophers without his particular vision. The work of Hume for example, exhibits a dissatisfaction with the "faith" of someone like Linnaeus, a dissatisfaction made tolerable only by the decision to leave the topic of "nature" related to "theodicy" alone as too complex to handle in such a way that anything coherent and intelligible could be said about it. Hume, to T.H. Huxley's disappointment,¹⁹ was not particularly interested in the sciences of his day, for their own sake, though one of his concerns was certainly with the use of a certain kind of analogical argument as a proper kind of procedure

in science.²⁰ Hurlbutt commented: "A close inspection of Hume's philosophy shows that the principle of analogy, in the scientific and non-Thomistic sense, probably is of more importance to his epistemology than to that of any other philosopher of the time, for he makes it the basis of matter-of-fact reasoning."²¹ Hume wants both to deny to theology its ostensible "modernization" by analogies drawn from science, and to show how the kind of arguments the "scientific" theologians are using are invalid, and how analogical reasoning may be used correctly, as he understands the matter. It seems clear that he received a great deal of stimulus towards formulating his own distinctive point of view from the new English version of the Dictionary of Bayle,²² produced in 1734, only three years after Law's translation and edition of King's book. As Courtines remarked: "Hume culled much useful material from Bayle, who saved the canny Scot many an hour of tedious research because he had the forethought to compile a Dictionnaire which lived up to its title, historique et critique".²³ It is of particular interest here that he made careful extracts of what he took to be important points relating to theodicy from the Dictionary,²⁴ though some of his references seem also to be taken from Law's introduction to King's work.²⁵ The point at which he is perhaps least sympathetic to Bayle is over his interpretation of the function of reason, since Bayle's position enabled people to confuse scepticism with atheism,²⁶ and therefore seemed to be discrediting the one faculty on which philosophy could rely "in its attempts to restrain the forces, already sufficiently strong, of ignorance, fanaticism and superstition."²⁷ By 1744 Hume had himself

a reputation for atheism which was to cost him a university chair.²⁸ Suspicion of him was based on his Treatise of Human Nature of 1739-40²⁹ and was no doubt fostered by his Enquiry concerning Human Understanding of 1748.³⁰ The first part of the Enquiry was to a certain extent a re-writing of Book I of the Treatise but with some sections presumably inserted quite deliberately, on specifically theological topics.³¹ Section viii, "On Liberty and Necessity" included some remarks on moral and physical evil to which attention will again be drawn later on in this exposition. It is Section x, "On Miracles" and Section xi, "Of a particular providence and a future state" which introduce his discussion of the view of religion represented by Butler's Analogy of 1736,³² a view which was to be of such importance during much of the nineteenth century.³³ Given Butler's somewhat cautiously expressed confidence in God³⁴ one can see how what he had to say seemed "sound" to the English in a way in which the confident speculations of a Leibniz could not. In this part of the Enquiry, Hume was "preparing to invade what had been regarded both by Deists and by their opponents as inviolable common ground."³⁵ His tactics included those which he was to develop in a much more extended form in the Dialogues - the narration of an imaginary conversation in the course of which the anthropomorphism of design-theology could be exhibited for criticism.³⁶ Like Kant,³⁷ he found in Epicurus a model of detachment over the issue of arguing from what were thought to be the characteristics of the world to its principles of explanation. Flew also notes the contribution Hume made here to the development of what he calls "naturalistic explanations" as distinct, for example, from "special creation" in biology.³⁸

Both of these works were to prove extremely important to Kant because of the way in which Beattie, concerned with Hume's Treatise, wrote the book³⁹ which made clear to Kant the relevance of what Hume had said about causality to what he had said in the Enquiry about providence. Beattie had discerned the drift of Hume's thought and thereby reminded Kant of his earlier reading of the Enquiry, and made him think afresh about the character of the arguments for the deity in a way that had not been so clear to him before.⁴⁰

Hume's most thorough-going attack on design-theology was to be contained in his Dialogues, written up during the course of continuing controversies of one sort and another. For example, in 1756 there was an attempt to get the General Assembly of the Church of Scotland to enquire into his writings.⁴¹ This occurred after his publication in 1754, of the first volume of his History of Great Britain, though the good sense of moderate opinion led to the abandonment of the proposed investigation, if only because it would give him even greater notoriety. His experience of writing at a time when "some political or other orthodoxy was enforced by law or custom"⁴² was further developed in 1757 with the fuss over his projected five "Dissertations". He eventually published only four,⁴³ including the slightly altered Natural History⁴⁴ but not the essays on suicide and immortality, for which essays on the nature of tragedy and taste were substituted. He was by this time a master of the style necessary to produce a short essay on acceptable subjects, without being thoroughly offensive and yet hopefully making some contribution to the formation of opinion.⁴⁵

Hume was helped through his times of controversy by his many good friends,⁴⁶ but even they were not prepared to put up with the scandal which might have ensued from the publication of the Dialogues, so Hume had to give the matter careful thought. The very form in which he wrote them was a skilful employment of a technique he had used with more or less success already. It would appear that by the mid-eighteenth century the dialogue form was something of an anachronism,⁴⁷ but was still used in an attempt to recover in philosophical writing some of the spontaneity of discussion.⁴⁸ Hume's particular model was Cicero's The Nature of the Gods⁴⁹ which had become a popular work in the eighteenth century.⁵⁰ Cicero's choice of a theism which enabled him to feel that human life had significance emerged during the course of a complex but methodical criticism of past and present theological stances. Bayle's Dictionary could well be read as a critical commentary on the arguments employed. As Hume pointed out, the dialogue form was an alternative to "methodical and didactic" exposition of a "system".⁵¹ So Buckley⁵² wrote of Cicero's method, that it is

a dialogue in which scientific or practical formulations are situated in their divergent frames of reference, brought into the conflict of irreconcilable debate, and are tested according to the views of each auditor for their probability content ... the debate is only resolved insofar as anyone chooses to adopt one of the conflicting positions or to modify it or to formulate a new position with elements from the alternatives or components ... Philosophizing lies precisely in this ongoing conversation, the chain of statements and judgments, and the value of the method converges precisely on this discrimination of perspectives and the differentiation of frames of references. As one cannot think outside of such a reference, the philosophic dialogues attempt to examine the varying products of the divergent schools as devices for invention and judgement.⁵³

Expounding a system, on the other hand, presupposed that one would state one's aim at the beginning of the discourse and carry on the argument with little concern for the questions which might be raised by those concerned about the topic. The dialogue form had the disadvantage of leaving certain subjects in obscurity, thus indicating the problematic nature of some "uncertain" topics, but at least this would be after an analysis which had endeavoured to look at all aspects of people's convictions, whether or not they happened to provide support for a particular "dogma".

The dialogues also reflect the life of the "man of letters".⁵⁴ Hume himself thoroughly enjoyed good company and maintained that conversation, with its implicit practice of "mutual deference or civility", led people to "curb and conceal that presumption and arrogance so natural to the human mind."⁵⁵ But the main purpose of his employment of the dialogue form does seem to have been to ensure at some future date the publication of his opinions on some aspects of belief, in such a way as to get other people to take them seriously. The Dialogues are therefore a particularly good specimen of a certain kind of writing, in that they contain two teachings, "a popular teaching of an edifying character, which is in the foreground; and a philosophical teaching concerning the most important subject, which is indicated only between the lines."⁵⁶ So Asa Gray can be cited as an example of someone who could quote Hume with approval as having anticipated some of the arguments against Paley, though he thought Hume's mature convictions did not rest there - he

did not apparently appreciate the character of Hume's work though was to use the dialogue form himself,⁵⁸ but not as cleverly, to subvert an "orthodoxy". It took someone like J.S. Mill, who for most of his life effectively concealed his opinions on some of the problems of religion to write:

In the case of the freethinking philosophers of the last century, it is often impossible to be quite certain what their opinions really were: how far the reservations they made, expressed real convictions, or were concessions to supposed necessities of position ... I have a strong impression that Hume's scepticism or rather his professed admiration of scepticism was rather to avoid offence than to conceal his opinion; that he preferred to be called a sceptic, rather than by a more odious name; and having to promulgate conclusions which he knew would be regarded as contradicting, on one hand the evidence of common sense, and on the other the doctrines of religion, did not like to declare them as positive convictions, but thought it more judicious to exhibit them as the results we might come to, if we put complete confidence in the trustworthiness of our rational faculty.⁵⁹

Hume himself had some illuminating comments to make about the work which reveal his own view of it very clearly. He wrote to Gilbert Elliot in 1751 that he had often thought

that the best way of composing a Dialogue, would be for Persons that are of different Opinions about any Question of Importance, to write alternately the different Parts of the Discourses, & reply to each other. By this Means, that vulgar Error would be avoided, of putting nothing but Nonsense into the Mouth of the Adversary: And at the same time, a Variety of Character & Genius being upheld, would make the whole look more natural & unaffected.⁶⁰

Strauss again had an apt comment: "The views of the author of a drama or dialogue must not, without previous proof, be identified with the views expressed by one or more of his characters, or with those agreed on by all his characters, or by his more attractive

characters. The real opinion of an author is not necessarily identical with that which he expresses in the largest number of passages."⁶¹ In a later letter of 1776, when Hume was revising this work, which he had not done for fifteen years, he said, "I find that nothing can be more cautiously and more artfully written."⁶² He freely used different contributors to express what may be supposed from his other writings to have been his own point of view.

His letter to Elliot, was a plea for help in strengthening the character of Cleanthes:

Had it been my good Fortune to live near you, I shou'd have taken on me the Character of Philo in the Dialogue, which you'll own I could have supported naturally enough: And you would not have been averse to that of Cleanthes. I believe, too, we could both of us have kept our Temper very well; only, you have not reach'd an absolute philosophical Indifference on these Points. What Danger can ever come from ingenious Reasoning & Enquiry? The worst speculative Sceptic ever I knew, was a much better Man than the best superstitious Devotee & bigot.⁶³

The rest of the letter revealed Hume's difficulty, as he put it, in analysing Cleanthes' argument into a proper form, so that it did not rely on the "propensity" of the mind towards it, a propensity which he would in any case want to show was not "a legitimate Ground of Assent".⁶⁴ Elliot need not go further than Part *iii*, since Cleanthes allows in Part *ii*, "that all our Inference is founded on the Similitude of the Works of Nature to the usual Effects of Mind. Otherwise they must appear a mere Chaos."⁶⁴ Hume then touched on a perpetual problem which appears in connection with this kind of argument: "The only difficulty is, why the other dissimilitudes do not weaken the argument. And indeed it would seem from experience and feeling, that they do not

weaken it so much as we might naturally expect."⁶⁵ So any help for Cleanthes would be "very acceptable". Elliot did offer help,⁶⁷ but was one of several of Hume's friends who discouraged Hume from actually publishing. He thoroughly disapproved of Hume's scepticism, for all its "unparalleled subtilty and elegance."⁶⁸ To another friend, Hugh Blair, Hume wrote a friendly "threat"⁶⁹ promising to dedicate the Dialogues to him if he ever did bring them out. Blair had written to Hume⁷⁰ predicting that he would be worshipped in France and that the French would have erected a statue to him had he published his Dialogues. Blair begged him to publish posthumously, though he clearly thought it better not to bring the work out at all. When Hume realised he was at the end of his life he was increasingly anxious to secure publication of what he felt was, and if his friends were to be trusted really was, the best thing he had ever written.⁷¹ He had not published them himself because he decided he wanted to "live quietly and keep remote from all Clamour." He thought them not more exceptionable than other things he had published, though perhaps he should have suppressed those works too. In any case, he thought the Dialogues were less obnoxious than the Enquiry. His friends need not prefix their names to the title page, though the publication would be made more excusable if it were clear that they were executing the wishes of a dead friend. So Hume wrote, that he "there introduces a Sceptic, who is indeed refuted, and at last gives up the Argument,"⁷² nay confesses that he was only amusing himself by all his Cavils; yet before he is silenced, he advances several Topics, which will give Umbrage, and will be deemed very

bold and free, as well as much out of the Common Road." It does not follow, however, that this is conclusive evidence for the view that everything that Philo says can be taken without further scrutiny to be Hume's own opinion. As Noxon commented, "the role of Philo is very like that usually played by Hume himself - the role of the critic who does not commit himself to defending his own position but makes the claims of others disintegrate under analysis, who aims not to prove or to claim but to show that no claim can be rationally justified."⁷³ One can only suppose that Hume hoped that the cultivated detachment of his view of religion made the Dialogues an appropriate companion-piece to his autobiographical essay, but his friends did not share his view of it. On his death, they published a collected edition of his philosophical writings, together with My own Life and a tribute written by Adam Smith. However, when Hume's nephew did eventually bring out the Dialogues in 1779, they raised much less disturbance than had been feared, perhaps because Hume himself was no longer available as the appropriate target of criticism.⁷⁴

Some attention has already been paid to Hume's references to Bayle's work. Hume was also familiar with the kind of theology represented by Leibniz and criticised it with confidence,⁷⁵ especially in his remarks on moral and physical evil,⁷⁶ and the mistake of imagining oneself to understand the actions of God.⁷⁷ There were constant reminders of Leibniz' thinking available, though he was unpopular in England because of his dispute with the Newtonians.⁷⁸ The Leibniz-Clarke correspondence, for example, was also well-known

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on the Continent; Clarke's kind of theology seems to have been one of Hume's targets in its own right;⁸⁰ and Law's edition of King's book was popular enough to deserve several reprintings. Moreover, apart from the Lisbon earthquake, there were also the London earthquakes of 1750. These were treated by some as a special visitation by God on London's sins,⁸¹ reviving interest in Burnet's Theory of the Earth.⁸² Any shift of the burden of disasters such as these from "providence" to "nature"⁸³ was in competition with the "theodicy" promulgated from fashionable London pulpits⁸⁴ and Hume had reason to be scathing about the way in which the clergy played on people's fears.⁸⁵ He knew about Voltaire's publication of Candide,⁸⁶ which he said was "full of Sprightliness & Impiety, & is indeed a Satyre upon Providence, under Pretext of criticising the Leibnitian System."⁸⁷ London publishers quickly produced translations of Candide and Warburton judged that one of its aims was to recommend naturalism and ridicule Leibniz.⁸⁸ Hume would never need to wait for translations from the French in any case, and was indeed criticised by Samuel Johnson because the very structure of his sentences was French,⁸⁹ so there is no reason to suppose that he could not have read the Theodicy for himself in one of its many French editions had he been so inclined. (Barber conveys the information that one of the French-speaking Wolffian enthusiasts in Germany thought that a reading of the Theodicy would enable Hume to cope with the problem of evil as he had reviewed it in the Enquiry.⁹⁰) However, Hume's unambiguous reference to Leibniz in the Dialogues suggests that even if he had read the Theodicy he cared little for it. He hardly does Leibniz justice, though it is

useful to remember in any discussion of the Dialogues that Leibniz was not one of Hume's principal concerns in the way in which he was for Kant. Hume's reference to Leibniz by name in the Dialogues is via Demea, who says that a look around Cleanthes' library will show that "there is scarce one of those innumerable writers, from whom the sense of human misery has not, in some passage or other, extorted a complaint and confession of it. At least, then, chance is entirely on that side; and no one author has ever, so far as I can recollect, been so extravagant as to deny it." Philo, however, goes on to indicate that Demea has made a mistake, because he affirms that "LEIBNITZ has denied it; and is perhaps the first, who ventured upon so bold and paradoxical an opinion; at least, the first, who made it essential to his philosophical system." Hume's footnote to this remark reads: "That sentiment had been maintained by Dr. King and some few others, before LEIBNITZ, though by none of so great fame as that GERMAN philosopher", as though to offer a correction of Philo's "error".⁹¹ Hume's view of the torments to which men may be subject, disorders of both mind and body, seems to have changed little between writing the Enquiry and the Dialogues.⁹² Whereas in writing the Enquiry he may perhaps be said to express some dissatisfaction with his own scepticism,⁹³ in the Dialogues he is prepared to let it have full rein, in order to provoke his combatants. Quite clearly, he sided with Bayle in his analysis of human ills and human folly, and as with Bayle, the problem for him was the moral attributes of God,⁹⁴ and the "ontological" status of those attributes when they were no longer to be understood solely in relation to human nature. His conclusion was

not unlike Bayle's, moreover, in that he saw the attempt to insist on the goodness of God in conjunction with his other attributes, to make God incomprehensible when all the "evidence" was taken into account. But whereas Bayle may have been prepared to rely on "faith", Hume seems to have preferred suspension of judgment on the whole issue.⁹⁵

It is not to the purpose here to give more than a sufficient indication of the argument of the Dialogues to make clear Hume's criticism of Leibniz in particular, throughout the ongoing conversation, as well as in Part x as such, where he chose to name Leibniz as one of the objects of his criticism. In that section Cleanthes himself did not draw upon Leibniz' a priori theology, and Demea invoked it only once when he said, "This world is but a point in comparison of the universe; this life but a moment in comparison of eternity ..." ⁹⁶ But he dealt with what he took to be the non-sense of Leibniz' a priori theology as he went along and cleverly parodied some of Leibniz' favourite analogies which the latter had offered as alternatives to those produced by Bayle. His basic point as he had indicated in the Enquiry ⁹⁷, was the folly of allowing ourselves to indulge in what he called "the unbounded licence of conjecture," - that of tacitly considering ourselves "as in the place of the Supreme Being". His view of man was that he is not equipped to discuss with assurance the origin of worlds. ⁹⁸ Hume would endeavour to show that the kind of hypothesis used by Galileo, for example, was not a model for a theologian. What Copernicus and Galileo ⁹⁹ had to say, followed eventually by Newton, represented a gain in intelligibility, which for Hume was not achieved by any supposedly comparable theistic hypothesis. Newton's theology which gave the lead to so many others

of his time,¹⁰⁰ seemed to represent science as a source of argument in support of one kind of theology, and this had made it much easier to get the new science accepted in the universities. But Hume wanted to emphasise the point that the sciences of his day and the theology thought to be appropriate to them were not to be confused.

Given the agreement between the participants in the Dialogues that they were not going to argue in terms of "possibility"¹⁰¹ but of "experience" Hume would raise a question which applied to design theology of any variety, whether of the a priori or a posteriori kind. "What peculiar privilege has this little agitation of the brain which we call thought, that we must thus make it the model of the whole universe?"¹⁰² Even if agreement could be reached on the point that ideas in a human mind fall into order of themselves¹⁰³ it did not follow that it was possible to give "precise meaning" to something similar said of the deity,¹⁰⁴ let alone what else could be said, in Hume's opinion, of the activity of the human mind.¹⁰⁵ Moreover, Hume wanted to draw attention to what he called the "inconvenience" of the anthropomorphism that was involved: "there is no ground to suppose a plan of the world to be formed in the divine mind, consisting of distinct ideas, differently arranged; in the same manner as an architect forms in his head the plan of a house which he intends to execute."¹⁰⁶ For him, nothing could be gained by such a supposition, since as he understood it, the ideal universe and the universe of experience were both exactly alike.¹⁰⁷ And he went on to affirm that it was merely arbitrary to say "We must stop somewhere" in reply to the man who wanted to ask

a question about the cause of God or of the ideal world.¹⁰⁸ As he said, "if we stop, and go no farther; why go so far? Why not stop at the material world? How can we satisfy ourselves without going on in infinitum? And after all, what satisfaction is there in that infinite progression? Let us remember the story of the INDIAN philosopher and his elephant. It was never more applicable than to the present subject."¹⁰⁹ For Hume, talk about the ideas in God's mind was to double the problem, not to simplify it or solve it in any sense. "An ideal system, arranged of itself, without a precedent design, is not a whit more explicable than a material one, which attains its order in a like manner; nor is there any more difficulty in the latter supposition than in the former."¹¹⁰ He returned to the problem once more in connection with another point. He said: "In all instances which we have ever seen ideas are copied from real objects, and are ectypal, not archetypal, to express myself in learned terms: You reverse this order, and give thought the precedence."¹¹¹ His view of reality therefore enabled him to produce a rather different version of some of Leibniz' analogies. "A builder is never esteemed prudent, who undertakes a plan, beyond what his stock will enable him to finish."¹¹² And an extended parody of Leibniz runs:

Did I show you a house or palace, where there was not one apartment convenient or agreeable; where the windows, doors, fires, passages, stairs, and the whole oeconomy of the building were the source of noise, confusion, fatigue, darkness, and the extremes of heat and cold; you would certainly blame the contrivance, without any farther examination. The architect would in vain display his subtilty, and prove to you, that if this door or that window were altered, greater ills would ensue. What he says, may be strictly true: The alteration of one particular, while the other parts of the building remain, may only augment the

inconveniences. But still you would assert in general, that, if the architect had had skill and good intention, he might have formed such a plan of the whole, and might have adjusted the parts in such a manner, as would have remedied all or most of these inconveniences. His ignorance, or even your own ignorance of such a plan, will never convince you of the impossibility of it. If you find any inconveniences and deformities in the building, you will always without entering into any detail, condemn the architect.¹¹³

Plainly, Hume wanted the focus of attention to be on what little could be said as a result of a posteriori considerations,¹¹⁴ without any prior guarantee of the goodness of God such as Leibniz had offered.

A.E. Taylor thought that Philo's attempt to account for the presence of teleological order in the organic realm without presupposing Paley's "prospectively contriving mind" much the weakest part of his case. This point is obviously important both for whatever Hume has said which may be thought to apply specifically to Leibniz, and for the position represented by Cleanthes. The strength of Cleanthes' position as Taylor re-phrased it, is that

there is no reason to believe that mind has ever come into being as a result of the causal process in inanimate nature, and every reason to believe that it has not, but must be reckoned with as present and operative throughout the whole course of nature, including the enormous stretch of astronomical time which we are taught by science to look on as preceding the appearance of organisms in any part of the universe of which we have any knowledge.¹¹⁵

And as Taylor put it further on: "The real and irresistible argument is ... that our success in increasing understanding of the pattern of things is itself the evidence that the pattern is due to omnipresent all-pervading intelligence as its source."¹¹⁶ Further, as T.E. Jessop made clear, the

limitation of reference and method in the Dialogues comes out most

starkly in the treatment of man. He comes into the universe of Cleanthes and Philo in three ways only - as an animal, as an artificer, and as a subject of pain. It is by omitting some of man's most distinctive features from the facts which on the one hand are set for explanation, and on the other hand are to provide the material for the explanation, that the discussion is kept on an easy plain.¹¹⁷

So Jessop also wanted to ask questions about the significance of man's knowing of his world, in order to illuminate one of Hume's weaknesses as he saw it. Whilst Hume was no doubt right to be suspicious of the conceit which man exhibits in putting himself in imagination in the place of the deity, there might be a theoretical difficulty in not engaging in some kind of "critical anthropomorphism".¹¹⁸ Jessop said that "Hume omits from his picture of the world his own ability, as a man in it, to draw that picture and to declare what can and what cannot be reasonably inferred from it."¹¹⁹ If what Hume said was meant to be a comprehensive criticism of the theism of his day he could not exclude himself from his own universe. So Jessop stated that the "deepest of all metaphysical contradictions is to imply both that we know anything at all about the world and that our knowing falls outside of it, and is therefore in no way significant of its nature."¹²⁰ If Hume could have agreed with Taylor's view of man's mind as being of its very nature such that the phases of mental processes "should be held together by unity of forward-looking interest"¹²¹; and if he had been prepared to choose something like that view of man as his principle of explanation of the whole; then he might at the very least have been able to give a more sensitive appreciation of Cleanthes' views, and consequently made a stronger case for him and a more adequate criticism of Leibniz.

The view that Hume both hankered after "the flesh-pots of rationalism"¹²² and could neither do it justice nor do without it appeared in his reluctance to abandon the vocabulary of theism in his characterisation of "nature". He presupposed that "generation" was not more comprehensible than "reason" and that both were "certain powers and energies in nature".¹²³ Either might therefore serve as the eternal or original "inherent principle of order",¹²⁴ and such an internal principle of explanation was sufficient for him. He asked "whether, from the coherence and apparent sympathy in all the parts of this world, there be not a certain degree of analogy among all the operations of Nature, in every situation and in every age; whether the rotting of a turnip, the generation of an animal, and the structure of human thought be not energies that probably bear some remote analogy to each other ..."¹²⁵ Whatever may be the internal cause forming the structure of the human mind is the same cause as that which is "responsible" for the structure and decomposition of other natural organisms, and presumably also of madness.¹²⁶ "Mind" was the word which he was still prepared to use of this internal cause. G.J. Nathan commented that as it is "the ultimate explanation for all order in the universe, it is, in a sense, also entitled to be called God. This God has only the remotest connection with the one traditionally conceived. Hume's God is immanent in the world as its structuring force and not transcendent to it as a designer."¹²⁷ So for Hume, "It were better, therefore, never to look beyond the present material world. By supposing it to contain the principle of its order within itself, we really assert it to be God; and the sooner we arrive at that divine Being, so much

the better." What he seems to mean by "better" here he indicates in the next sentence: "When you go one step beyond the mundane system, you only excite an inquisitive humour, which it is impossible ever to satisfy."¹²⁸ What Hume proposed as an ultimately mysterious yet "rational" principle of explanation he also identified as "Nature". So what he said may have some merit insofar as he was in effect emphasizing "the influence of Nature over human lives" and was refusing "to identify Nature with blind irrationality."¹²⁹ But Hume did not offer a worked out "reconstruction" of what he meant by "Nature" as an alternative to "God", but merely sketched some of the views of nature common in his time as part and parcel of the context of his discussion of theodicy.

It may be that he would never have found himself in this position if either he or the targets of his criticism had been able to provide for themselves different "models" for what was meant by divine creativity. Farrer indicated that if Leibniz had fully understood the implications of what he had said about the "divine creative choice" - that it seems to be "an intuitive turning away from an infinite, or at least indefinite, range of less attractive possibility", he would have seen that it would be more akin to the "sort of choice exercised in artistic creativity". And as Farrer said, a consequence of such a line of speculation could be "that the divine mind designs more through us, and less simply for us".¹³⁰ Cleanthes had a deity, as Taylor remarked who is no more than "an exceptionally skilful artisan piecing together materials to

compose a machine for the execution of a determinate piece of work." For this latter commentator also what Butler and later Paley were getting at, would be more adequately presented in terms of a model of "a rightly proportioned work of art or a well-lived life".¹³¹ The purposes to which such models relate "cannot be set forth in any single unambiguous formula like that which describes the effect for which a machine has been designed". The attractiveness of these models lies in the fact that "the good poem and the good life are embodiments of purposive activities which are worth pursuing simply on their own account for their inherent goodness", whereas making watches, houses and ships is worth while only as means to ends - the avoidance of "inconveniences".¹³² One may propose that the nearest approach Cleanthes made to the appropriate kind of model was his example of a "library". However, since the library turned out to be "animal" and "vegetable", and to perpetuate itself by "descent and propagation"¹³³ the supposed "illustration" was unhelpful, not to say confusing. It is interesting that in his "critical analysis" of some of the argument of this work, N. Kemp Smith¹³⁴ said that Cleanthes was "unfairly" taking advantage of the fact that works such as the Aeneid are the outcome of creative art. But he had a different view of creative art from that indicated either by Farrer or by Taylor. He did not see in creative activity a model for divine activity because he saw creative activity in terms of the "Architect" analogy. The architect's plans govern the activities of the contractor from start to finish. In other words N. Kemp Smith thought in terms of the analogy which Farrer suggested never did justice to what Leibniz was saying about God and which Hume parodied. N. Kemp Smith reinforced

his point by relying heavily on what Hume had to say about creative art, which further hindered the move which he seemed to be about to make in support of what Farrer suggested.

What Hume sketched out with reference to "nature" in the Dialogues emerges only in the course of various arguments and rarely for its own sake as a proper subject of interest.¹³⁵ What may be of value in his presentation of the material is his insistence on the kind of attention to and descriptions of nature which may allow scientific enquiry to proceed. For example, a brief discussion of cosmogony led him to a point which has been seen as stating logically a view which merely awaited "darwinism" to fill in the "evidential gaps".¹³⁶ Hume wrote:

It is in vain, therefore, to insist upon the uses of the parts in animals or vegetables and their curious adjustment to each other. I would fain know how an animal could subsist, unless its parts were so adjusted? Do we not find, that it immediately perishes whenever this adjustment ceases, and that its matter corrupting tries some new form. It happens, indeed, that the parts of the world are so well adjusted, that some regular form immediately lays claim to this corrupted matter: and if it were not so, could the world subsist? Must it not dissolve as well as the animal, and pass through new positions and situations - till in a great, but finite succession, it falls at last into the present or some such order?"¹³⁷

Like Bayle, however, the participants in the Dialogues remained puzzled by the details, without being able to "explain" them by a corresponding theological statement. Cleanthes raised the question about the "many conveniences and advantages which man and all animals possess". He commented:

Two eyes, two ears, are not absolutely necessary for the subsistence of the species. Human race might have been propagated and preserved, without horses, dogs, cows, sheep, and those innumerable fruits and products which serve to our satisfaction and enjoyment. If no camels had been created for the use of man in the sandy deserts of

AFRICA and ARABIA, would the world have been dissolved? If no loadstone had been framed to give that wonderful and useful direction to the needle, would human society and the human kind have been immediately extinguished?¹³⁸

But he could do no more than suggest these examples to reinforce what he had to say about his need for a deity able¹³⁹ to produce the "conveniences", and his dissatisfaction with frugal nature as the source of such apparent benefits.¹⁴⁰

Philo made another point to which "darwinism" would later give particular attention when he said:

You ascribe, CLEANTHES, (and I believe justly) a purpose and intention to Nature. But what, I beseech you, is the object of that curious artifice and machinery, which she has displayed in all animals? The preservation alone of individuals and propagation of the species. It seems enough for her purpose, if such a rank be barely upheld in the universe, without any care or concern for the happiness of the members that compose it. No resource for this purpose: no machinery, in order merely to give pleasure or ease: no fund of pure joy and contentment: no indulgence without some want or necessity accompanying it. At least, the few phenomena of this nature are overbalanced by opposite phenomena of still greater importance.¹⁴¹

And he described as one of the circumstances which introduces evil into the world "that contrivance or oeconomy of the animal creation, by which pains, as well as pleasures, are employed to excite all creatures to action, and make them vigilant in the great work of self-preservation."¹⁴²

He also found the "frugality" of nature distressing in another connection.

"So well adjusted are the organs and capacities of all animals, and so well fitted to their preservation, that, as far as history or tradition reaches, there appears not to be any single species, which has yet been extinguished in the universe. Every animal has the requisite endowments; but these endowments are bestowed with so scrupulous an oeconomy, that

any considerable diminution must entirely destroy the creature." Further, he maintained that diversity and stability were not necessarily to count as evidence which stood to God's credit. "The author of Nature is inconceivably powerful: his force is supposed great, if not altogether inexhaustible: nor is there any reason, as far as we can judge, to make him observe this strict frugality in his dealing with creatures. It would have been better, were his power extremely limited, to have created fewer animals, and to have endowed these with more faculties for their happiness and preservation."¹⁴³

It is true that in the last part of the Dialogues¹⁴⁴ Hume used Philo to support Cleanthes in his dissatisfaction with mere "nature" as the source of "design", so that Philo re-phrased what he had to say to provide the basis from which he could develop a minimal theism. The principles of the anatomist, "That Nature does nothing in vain", and of the astronomer - "That Nature acts by the simplest methods, and chuses the most proper means to any end" now became maxims which laid a "strong foundation of piety and religion".¹⁴⁵ It is this kind of support for Cleanthes which enabled Nathan, as has already been noted, to write of Hume's deity as immanent in the world as its structuring force and not transcendent to it as its designer. Philo's first employment of a similar maxim, however, was in a context where he was prepared to destroy any basis for theism. Hume had already made it clear in the course of the Dialogues that a man might feel entitled to select any one of a number of analogies for his deity. There was the analogy of the "stupid mechanic",¹⁴⁷ or that of a variety of

deities to whom the attributes of omnipotence, wisdom and goodness could not be ascribed.¹⁴⁸ There was the analogy of the "infinite spider, who spun this whole complicated mass from his bowels, and annihilates afterwards the whole or any part of it, by absorbing it again, and resolving it into his own essence."¹⁴⁹ There was one analogy in particular that he used, as part of his criticism of theodicy, which seemed to him to be an excellent one to express what he understood to be the kind of thing meant by "physical evil".

Look round this universe. What an immense profusion of beings, animated and organized, sensible and active! You admire this prodigious variety and fecundity. But inspect a little more narrowly these living existences, the only beings worth regarding. How hostile and destructive to each other! How insufficient all of them for their own happiness! How contemptible or odious to the spectator! The whole presents nothing but the idea of a blind Nature, impregnated by a great vivifying principle, and pouring forth from her lap, without discernment or parental care, her maimed and abortive children!¹⁵⁰

Hume earlier implied that the frugality of nature could mean that the power of the deity was limited,¹⁵¹ rather than that he was supremely wise. As a matter of inference, a man arguing a posteriori could not suppose that "the world, considered in general, and as it appears to us in this life" was not "different from what a man or such a limited Being would, beforehand, expect from a very powerful, wise, and benevolent Deity".¹⁵² And so Hume insisted, via Demea, that man may not pretend any exemption from the lot of all other animals:

The whole earth ... is cursed and polluted. A perpetual war is kindled amongst all living creatures. Necessity, hunger, want, stimulate the strong and courageous: Fear, anxiety, terror, agitate the weak and infirm. The first entrance into life gives anguish to the new-born infant and to its wretched

parent: Weakness, impotence, distress, attend each stage of that life: and 'tis at last finished in agony and horror.

Philo followed this up by emphasising the

curious artifices of Nature, in order to imbitter the life of every living being. The stronger prey upon the weaker, and keep them in perpetual terror and anxiety. The weaker too, in their turn, often prey upon the stronger, and vex and molest them without relaxation. Consider that innumerable race of insects, which either are bred on the body of each animal, or flying about infix their stings in him. These insects have others still less than themselves, which torment them. And thus on each hand, before and behind, above and below, every animal is surrounded with enemies, which incessantly seek his misery and destruction.¹⁵³

The evils man surmounts by combining with other men to make his world habitable he seems promptly to balance by self-inflicted ills. It seems clear that the course of nature is not established to further the cause of human or animal felicity.¹⁵⁴

Nelson Pike developed the theodicy produced by Demea (to which attention has already been drawn) in an attempt to cope with this view. Pike wanted to work out his argument about the possibility of there being morally sufficient reasons for allowing suffering in the best of all possible worlds.¹⁵⁵ But Pike had nothing to say about what would count as a morally sufficient reason for the sufferings of creatures other than men, and more particularly, as Pike does in fact show quite clearly, Hume was wholly uninterested in this area of theodicy. However it is not, despite Pike, that Hume expressed no opinion on the subject,¹⁵⁶ because he said in the next paragraph after Demea's statement, via Cleanthes, that to propose some such resolution of the problem was to admit an "arbitrary supposition", by which he meant a supposition contrary to "matters of fact, visible and uncontroverted."¹⁵⁷ Demea

had put together two suggestions of Leibniz¹. One was that the world was but a point in comparison with the rest of the universe, and the other was that life was but a moment in comparison with eternity.

"The present evil phenomena, therefore, are rectified in other regions, and in some future period of existence. And the eyes of men, being then opened to larger views of things, see the whole connection of general laws; and trace, with adoration, the benevolence and rectitude of the Deity, through all the mazes and intricacies of his providence." But Cleanthes asked: "Whence can any hypothesis be proved but from the apparent phenomena? To establish one hypothesis upon another, is building entirely in the air; and the utmost we ever attain, by these conjectures and fictions, is to ascertain the bare possibility of our opinion; but never can we, upon such terms, establish its reality."

Pike¹⁵⁸ drew attention to Philo's agreement to carry on with the discussion in the hope that Cleanthes himself would be able to describe a somewhat different view of human life and the condition of mankind, from which the moral attributes of the deity might perhaps be inferred.¹⁵⁹

Pike commented: "It is clear from the context that this adjustment is made only for purposes of argument and not because Hume senses any inadequacy in Philo's first position."¹⁶⁰

Not only did Cleanthes' deity need a mind "like the human", but also "a goodness like the human", and this Hume repeatedly denied can be inferred from phenomena.¹⁶¹

So to what he had said about the stimulus of pain rather than of pleasure constituting the primary motivation of animals, he added a query about the supposed regularity of nature as evidence of "goodness".¹⁶² A

being who understood the "secret springs of the universe" might just as easily have created a world where everything was always well, as the one that actually exists.

A fleet whose purposes were salutary to society, might always meet with a fair wind: Good princes enjoy sound health and long life: Persons, born to power and authority, be framed with good tempers and virtuous dispositions... Some small touches, given to CALIGULA's brain in his infancy, might have converted him into a TRAJAN: one wave, a little higher than the rest, by burying CAESAR and his fortune in the bottom of the ocean might have restored liberty to a considerable part of mankind.

He would allow that a prior confidence in Providence, and its reasons for not so intervening might "save" the conclusion concerning the divine attributes," but said "it can never be sufficient to establish that conclusion." In the development of this "theology" of "if only" he applied his criticism of natural endowments to man also, with specific application to man's need to develop a cultured and prosperous society.¹⁶³ Such a society depends upon continued effort, "But as industry is a power, and the most valuable of any, Nature seems determined, suitably to her usual maxim, to bestow it on men with a very sparing hand; and rather to punish him severely for his deficiency in it, than to reward him for his attainments." Hume did not ask for men to be exalted to a higher rank of being but said that "it is hard; I dare to repeat it, it is hard, that being placed in a world so full of wants and necessities; where almost every being and element is either our foe or refuses its assistance ... we should also have our own temper to struggle with, and should be deprived of that faculty, which can alone fence against these multiplied evils."¹⁶⁴ He also asked again about the supposed regularity of things by drawing attention, not this time to apparent deficiencies

which could perhaps have been remedied, but to the disproportion of what is provided to what is required. He concluded: "There is nothing so advantageous in the universe, but what frequently becomes pernicious, by its excess or defect; nor has Nature guarded, with the requisite accuracy, against all disorder or confusion. The irregularity is never, perhaps, so great as to destroy any species; but is often sufficient to involve the individuals in ruin and misery."¹⁶⁵

It was only after this determined onslaught on the case of those who wanted to proffer a theodicy that Hume worked out a conclusion which allowed him to write his letter in which he said that his sceptic is refuted and at last gives up the argument. However, what he said about evil in the Dialogues surely amounts to more than raising "cavils" for the sake of "amusement". Erasmus Darwin seems to have agreed with him that theodicy was an impossible subject, and shared much of Hume's outlook on questions of religion. On the other hand, both Malthus and Paley, in their different ways, tried to show where Hume was mistaken. They both took him seriously, but drew "theistic" conclusions from the "evidence". After looking at the work of Kant, it will be to these comments on Hume that we may turn, and to the repudiation both of Hume and of these critics of his, by Coleridge.

Linnaeus and Hume

- 1 K. Hagberg, Carl Linnaeus, trans. A. Blaire, London: J. Cape, 1952, p.159, p.257. Cited as Hagberg, Linnaeus.
- 2 C. Darwin, The Formation of Vegetable Mould through the Action of Worms, with Observations on their Habits, London : J. Murray, 1881.
- 3 Hagberg, Linnaeus, p. 258f. Cf. F.A. Stafleu, Linnaeus and the Linnaeans: the Spreading of their Ideas in Systematic Botany, 1735-1789, Utrecht: A. Oosthoek, 1971, p.112f. Cited as Stafleu, Linnaeus.
- 4 Hagberg, Linnaeus, p. 262-3.
- 5 Cf. H.C. Cameron, Sir Joseph Banks, 1743-1820, London: Batchworth, 1952, p. 297f. Appendix D, giving Sir Everard Home's Hunterian Oration, 14th February, 1822. In praising Sir Joseph's interest in the anatomy and physiology of plants, p. 304, he said: "We, more than other men, can estimate the sagacity of the choice he made, since we have felt in a higher degree than other men can, the gratification which the mind receives from the contemplation of animated nature, beyond what is to be derived from exploring the deepest recesses of the mineral kingdom. The various structures that constitute the animal and vegetable creation are formed into one connected chain, rendered by the vital spark, with which every part of it is endowed, the most perfect of the Works of the Almighty, within the reach of our intellectual capacity. The consideration of it is boundless in extent, and every step we make in it increases our admiration of our Creator."
- 6 Hagberg, Linnaeus, p.257. Cf. Stafleu, Linnaeus, p. 199f., p. 211f.
- 7 N. Gourlie, The Prince of Botanists: Carl Linnaeus, London: Witherby, 1953, p. 181, quoting his "Lectures on the Animal Kingdom". Cited as Gourlie, Prince.
- 8 Ibid., p. 125.
- 9 Hagberg, Linnaeus, p. 186, quoting the De Curiositate Naturali of 1748.
- 10 Gourlie, Prince, p. 271-2. Cf. Hagberg, Linnaeus, p. 154.
- 11 Gourlie, Prince, p. 181.
- 12 Hagberg, Linnaeus, p. 196f., p.203. Cf. Stafleu, Linnaeus, p.27, p. 134.

- 13 Hagberg, Linnaeus, p.107-8. Cf. Stafleu, Linnaeus, p.56 for his worry about fossils.
- 14 Hagberg, Linnaeus, p.200.
- 15 Ibid., p.183. Cf. p.177, p.193, and Gourlie, Prince. p.220-1.
- 16 Hagberg, Linnaeus, p.191.
- 17 Ibid., p.180, quoting a paper of 1739, "On the Lappland Reindeer's Gadfly Stings".
- 18 Ibid., p.181.
- 19 T.H. Huxley, Collected Essays, London: Macmillan, 1900, V, 249-254. Cf. H. Butterfield, The Origins of Modern Science, London: Bell, 1958, p. 222f, especially 224f on de Buffon. Also, A.O. Lovejoy, "Buffon and the Problem of Species", pp.84-113 in Bentley Glass, Forerunners; and Stafleu, Linnaeus, p. 303f. Occasionally Hume made a comment which showed his awareness of some of the on-going discussion, for example, his reference to "Lord Monboddo, who maintains that all men had originally tails ..." in R. Klibansky and E.C. Mossner, eds., New Letters of David Hume, London: Clarendon, 1954, p.201. Cited as Kilbansky and Mossner, New Letters.
- 20 Catherine S. Frazer, "Hume's Criticism and Defence of Analogical Argument", Journal of the History of Philosophy, VIII, (1970), 173-179. Cf. R. Wollheim, Hume on Religion, London: Fontana, 1966, p.124-5. Cited as Wollheim, Hume, referring to the Dialogues Concerning Natural Religion unless otherwise stated.
- 21 J.R. Hurlbutt, Hume, Newton, and the Design Argument, Lincoln: Nebraska U.P., 1965, p.146. Cited as Hurlbutt, Hume. And J. Laird in "Symposium: the Present-Day Relevance of Hume's Dialogues Concerning Natural Religion", Aristotelian Society, Supplementary Volume, XVIII, (1939), 206-217. Cited as "Symposium" with the name of the contributor.
- 22 Wollheim, Hume, p.186 for his discussion of the "Manichean system", and p. 204, probably making use of "Pyrrho", note C, in Popkin, Selections, p.206; in the Treatise, using Bayle's article on "Spinoza": D. Hume, A Treatise of Human Nature, ed. E.C. Mossner, Harmondsworth: Penguin, 1969, p.292f, and cf. p.13. Cited as Hume, Treatise. Cf. N.K. Smith, The Philosophy of David Hume, London: Macmillan, 1966, p.43, and "Appendix C", p.325f. Cited as N.K. Smith, Hume.
- 23 Leo Pierre Courtines, "Bayle, Hume and Berkeley", Revue de Littérature Comparée, XXI, (1947), 416-428, p.423.
- 24 E.C. Mossner, "Hume's Early Memoranda: the Complete Text", Journal of the History of Ideas, IX, (1948), 492-518; cf. particularly p.501, sections 19-21. Cited as Mossner, "Memoranda".

- 25 C.S. King, A Great Archbishop, p. 41. A note on the same page, quoting from the preface of the 1781, fifth edition, of Law's work also related how Bolingbroke had extracted the scheme of "the best" from King's book, and that Bathurst had seen these extracts lying by Pope when he was working on his Essay on Man (of 1732-4). Cf. Mossner, Memoranda, p. 501, Section 18; and E.C. Mossner, The Life of David Hume, Oxford: Clarendon, 1970, pp. 78-80, on other authors used by Hume. Cited as Mossner, Life.
- 26 Wollheim, Hume, p. 111.
- 27 N.K. Smith, Hume, p. 205. Cf. J. Passmore, Hume's Intentions, London: Duckworth, 1968, p. 132, p. 142, p. 151.
- 28 Hume, Treatise, Mossner's "Introduction", p. 18f.
- 29 Mossner, Life, pp. 156-60, and p. 118f on the reception of the Treatise. Cf. J.Y.T. Greig, ed., The Letters of David Hume, Oxford: U.P., 1932, I, 187: "I never asserted so absurd a Proposition as that anything might arise without a Cause: I only maintain'd, that our Certainty of the Falsehood of that Proposition proceeded neither from Intuition or Demonstration, but from another Source. That Caesar existed, that there is such an Island as Sicily; for these propositions, I affirm, we have no demonstrative or intuitive Proof. Would you infer that I deny their Truth, or even their Certainty? There are many different kinds of Certainty; and some of them as satisfactory to the Mind, tho perhaps not so regular, as the demonstrative kind." Cited as Greig, Letters.
- 30 D. Hume, Enquiries Concerning the Human Understanding and Concerning the Principles of Morals, ed. L.A. Selby-Bigge, 2nd ed., Oxford: Clarendon, 1902. Cited as Hume, Enquiry. Cf. p. 226-7 of the "Principles of Morals" on the Maricheons. Cf. N. Kemp Smith, "David Hume? 1739-1939", Aristotelian Society, Supplementary Volume, XVIII, (1939), i-xxxiv, especially p. xxvf. Cited as N.K. Smith "Hume", (Arist. Soc.).
- 31 Hume, Enquiry, Selby-Bigge's comparative tables of contents and analytical index, pp. xxiii-xl; and W.B. Todd, ed. Hume and the Enlightenment, Edinburgh: U.P., 1974, T.E. Jessop, "The Misunderstood Hume", pp. 1-13 on the relationship between the Treatise and the Enquiry.
- 32 J. Butler, The Analogy of Religion Natural and Revealed, ed. H. Morley, London: Routledge, 1887. Cited as Butler, Analogy. Cf. A. Jeffner, Butler and Hume on Religion, Stockholm: Diakonstyrelsens Bokförlag, 1966. Cf. Klibansky and Mossner, New Letters, p. 2-3.
- 33 J. Butler, Works, ed. W.E. Gladstone, Studies Subsidiary to the Works of Bishop Butler, Oxford: Clarendon, 1896, especially "The Censors of Bishop Butler", p. 21f. Cf. W.L. Collins, Butler, Edinburgh: Blackwood, 1881, p. 154f, "Modern Criticisms".

- 34 Butler, Analogy, e.g. p. 30, p. 93-4, p. 99-100, p. 123, p. 183, p. 200-1, p. 209 etc.
- 35 A. Flew, Hume's Philosophy of Belief, London: Routledge & Kegan Paul, 1961, p. 216. Cited as Flew, Hume.
- 36 Hume, Enquiry, pp. 132-148. Cf. his "Dialogue" at the end of the "Principles of Morals", pp. 324-346.
- 37 I. Kant, Critique of Pure Reason, trans. N.K. Smith, London: Macmillan, 1964, p. 202 and 426-7. Cited as Kant/N.K.S., Critique.
- 38 Flew, Hume, p. 236.
- 39 F. Copleston, A History of Philosophy, V:II, "Berkeley to Hume", New York: Image, 1964, p. 177-8, on Beattie's The Nature and Immutability of Truth. On Beattie's major predecessors as critics of Hume, cf. A. Seth Pringle-Pattison, Scottish Philosophy: A Comparison of the Scottish and German Answers to Hume, 4th ed., Edinburgh; Blackwood, 1907.
- 40 C.W. Hendel, Studies in the Philosophy of David Hume, Princeton: U.P., 1925, p. 68-9. Cited as Hendel, Hume.
- 41 Wollheim, Hume, p. 196. Cf. Hendel, Hume, p. 391.
- 42 Strauss, Persecution, p. 32.
- 43 Mossner, Life, p. 321f, p. 336f.
- 44 Ibid., "Appendix F", p. 619.
- 45 D. Hume, Essays: Moral, Political and Literary, London: G. Richards, 1904. Cited as Hume, Essays.
- 46 D. Hume, Dialogues Concerning Natural Religion, ed. N.K. Smith, New York: Bobbs-Merrill, 1947, p. 6-7. Cited as N.K. Smith, Dialogues. Cf. Mossner, Life, p. 278.
- 47 James Collins, The Emergence of Philosophy of Religion, New Haven: Yale U.P., 1967, pp. 14-16.
- 48 J.V. Price, "Sceptics in Cicero and Hume", Journal of the History of Ideas, XXV, (1964), 97-106.
- 49 Cicero, The Nature of the Gods, trans. H.C.P. McGregor, introd. J.M. Ross, Harmondsworth: Penguin, 1972.
- 50 Ibid., p. 59f. Cf. Barth, Protestant Theology, p. 76-7; Leibniz, Theodicy, p. 99 and passim, and his references to Bayle's use of the work; Greig, Letters, 1, 34.

- 51 Wollheim, Hume, p. 99.
- 52 Michael J. Buckley, "Philosophic Method in Cicero", Journal of the History of Philosophy, VIII, (1970), 143-155.
- 53 Ibid., p. 148.
- 54 Wollheim, Hume, p. 100 and p. 274, from "My own life". Cf. Peter Gay, The Enlightenment: An Interpretation. The Rise of Modern Paganism, London: Weidenfeld & Nicolson, 1967, p. 14, p. 176.
- 55 Hume, Essays, "Of the rise and progress of the arts and sciences", p. 127.
- 56 Strauss, Persecution, p. 36. Cf. Hendel, Hume, p. 349-50.
- 57 Asa Gray, Darwiniana: Essays and Reviews Pertaining to Darwinism, ed. A. Hunter Dupree, Mass.: Belknap Press, 1963, p. 298.
- 58 Ibid., p. 57f, "Design versus necessity - a discussion between two readers of Darwin's Treatise on the Origin of Species, upon its Natural Theology". This essay first appeared in America in 1860, with no clue to the identity of the protagonists. Not until 1876 did Gray give the characters in the dialogue their appropriate initials - his own, and those of Daniel Treadwell, an atheistic Harvard colleague.
- 59 J.S. Mill, An Examination of Sir William Hamilton's Philosophy, 5th ed., London: Longmans, 1878, p. 643. Cited as Mill, Hamilton's Philosophy.
- 60 Greig, Letters, 1, 154.
- 61 Strauss, Persecution, p. 30.
- 62 Greig, Letters, 11, 334.
- 63 Greig, Letters, 1, 154.
- 64 Ibid., p. 155.
- 65 Ibid., p. 157.
- 66 Wollheim, Hume, p. 99-100.
- 67 Encyclopedia Britannica: or, a Dictionary of Arts and Sciences, Compiled upon a New Plan, by a Society of Gentlemen in Scotland, London: J. Donaldson, 1773, 3 vols. Vol. 1, "Metaphysics", especially p. 175f, beginning with "cosmology", may well represent Elliot's views with its references to Leibniz' Theodicy, and the latter's theology is also employed pp. 277-80, pp. 296-8. The 4th ed. of

1810 was of 20 vols., and the article on "Metaphysics" seems to have been re-written by someone else, though within the same general framework. By this time, the Leibnizian comments have virtually disappeared, except for p. 556; and p. 557 now embraces the works of Hume and Reid, cf. p. 607. P. 674 includes references to King, and Clarke's Demonstration. P. 684 discusses the question of "whether the present system be the best possible". The answer given is that only God can be said to be the "best" - there cannot be a best of creatures or of created systems. The dispute arose from taking "good", "better", "best", for "absolute qualities inherent in the nature of things, whereas in truth they are only relations arising from certain appetites". (Cf. Wollheim, Hume, p. 114). This author concludes, "It is not then, as Leibnitz and others argue, the natural and necessary goodness of some particular things, represented by the divine ideas, which determines God to prefer them to all others, if understood of his first act of producing them, but it is his own free choice which, among many equal potential goods, makes some things actually good, and determines them into existence. When those are once supposed to exist, every thing or action becomes good which tends to their happiness and preservation ..."

- 68 Greig, Letters, I, 154, footnote. Cf. N.K. Smith, Dialogues, p. 87 on Elliot's urging Hume to reckon with feeling - the immediate impression made on the mind by the contemplation of nature, - as well as with reason and experience. Cf. R.H. Burton, The Life and Correspondence of David Hume, Edinburgh: W. Tait, 1846, p. 321. Cited as Burton, Hume.
- 69 Klibansky and Mossner, New Letters, p. 72.
- 70 Ibid., p. 72-3, footnote.
- 71 Greig, Letters, II, 323.
- 72 Wollheim, Hume, p. 203. Philo's "plain philosophical assent" is a mark of Hume's last revision of the work in 1776. Cf. N.K. Smith, Dialogues, p. 93f, and T.E. Jessop, "Symposium", pp. 218-228, especially p. 218-9 for a scathing comment on Hume's achievement: "Hume could do no better because, with all his fertility of imagination, he lacked that versatility of sympathy, that spontaneous capacity for getting inside the skins of others, which is the source of dramatic plausibility."
- 73 J. Noxon, "Hume's Agnosticism", in V.C. Chappell, ed., Hume, London: Macmillan, 1968, p. 336. Cited as Chappell, Hume. Cf. E.C. Mossner, "The Enigma of Hume", Mind, XIV, (1936), 334-49, and N.K. Smith, Dialogues, p. 57f.
- 74 Richard Hurd, An Apology for the Life and Writings of David Hume Esq., London: 1777, shows how some of Hume's readers were well aware of the implications of some of Hume's writings for religion, and thought Hume important for the understanding of "religious hypocrisy", and

consequently useful to draw attention to the appalling character of the "god" Christianity seemed to serve. Cf. T.E. Ritchie, An Account of the Life and Writings of D. Hume Esq., London: Cadell and Davies, 1807, p. 301, noted the publication of the Dialogues. And, "Two tracts, ascribed to him were afterwards published at London; the one On Suicide, and the other On the Immortality of the Soul. These essays, though the mode of writing and of reasoning might induce one to suppose them genuine, have never been acknowledged by his friends, and are believed to be spurious." (Burton, Hume, 11, 13, also referred to the 1783 publication of the essays, "with remarks, intended as an antidote to the poison contained in these performances, by the Editor." Burton was convinced they were by Hume.) Ritchie discussed the essay "On a Particular Providence", p. 325, and on p. 330, the character of the Dialogues, in the course of the writing of which, he said, Hume became "insufferably redundant and tiresome".

- 75 Hume, Enquiry, his ironical use of the notion of "pre-established harmony", p. 54-5.
- 76 Ibid., p. 101.
- 77 Ibid., p. 145-6, and his insistence, pp. 104-8 on seeing man as part of nature.
- 78 Leibniz, Theodicy, Farrer's "Introduction", p. 33-4.
- 79 Barber, Leibniz, p. 184, and Brooks, Voltaire, p. 76.
- 80 Wollheim, Hume, p. 161f. Cf. Collins; God, p. 119-20.
- 81 T.D. Kendrick, The Lisbon Earthquake, London: Methuen, 1956, p. 1f. Cited as Kendrick, Lisbon.
- 82 Thomas Burnet, The Theory of the Earth: containing an account of the original of the Earth, and of all the general changes which it hath already undergone, or is to undergo, till the consummation of all things. London: R. Norton for W. Kentilby, 1684.
- 83 E. Lee Tuveson, Millenium and Utopia: A Study in the Back ground of the Idea of Progress, New York: Harper, 1964, p. 119. Cited as Tuveson, Millenium.
- 84 Kendrick, Lisbon, p. 15.
- 85 Greig, Letters, 1, 141.
- 86 I.O. Wade, The Intellectual Development of Voltaire, Princeton: U.P., 1969, pp. 651-693 on Voltaire and Leibniz.
- 87 Klibansky and Mossner, New Letters, p. 53.
- 88 Kendrick, Lisbon, p. 135, p. 157-8.

- 89 J. Boswell, London Journal, ed. F.A. Pottle, London: Reprint Society, 1952, p. 302.
- 90 Barber, Leibniz, p. 171.
- 91 Wollheim, Hume, p. 166-7. King's view that there is a "balance" of misery and happiness in the world is challenged by Philo who wants to know why there need be any misery whatsoever, p. 188f.
- 92 Ibid., p. 168-171.
- 93 Hume, Enquiry, p. 103, and cf. Wollheim, Hume, p. 175, and N.K. Smith, "Hume", (Arist. Soc.), p. xüf.
- 94 Wollheim, Hume, p. 172-3, p. 187. Cf. W.H. Capitan, "Part X of Hume's Dialogues", in Chappell, Hume, pp. 384-395.
- 95 Wollheim, Hume, p. 160, p. 192-3, p. 203-4, and the note on "sceptics and dogmatists", p. 195. Cf. Noxon, "Hume's Agnosticism", in Chappell, Hume, p. 382-3.
- 96 Wollheim, Hume, p. 173; Leibniz, Theodicy, p. 120, p. 135.
- 97 Hume, Enquiry, p. 145.
- 98 Wollheim, Hume, p. 103, and p. 107.
- 99 Ibid., p. 108-110, p. 124-5. Cf. Barth, Protestant Theology, p. 27, and Hurlbutt, Hume, p. 26.
- 100 Hurlbutt, Hume, p. 38.
- 101 Wollheim, Hume, p. 118-9.
- 102 Ibid., p. 121-122.
- 103 Ibid., p. 119.
- 104 Ibid., p. 135.
- 105 Ibid., pp. 130-4. Cf. Hume, Enquiry, p. 72-3.
- 106 Wollheim, Hume, p. 133.
- 107 Ibid., p. 134.
- 108 Ibid., p. 153.
- 109 Ibid., p. 135.
- 110 Ibid., p. 137.
- 111 Ibid., p. 159.

- 112 Ibid., p. 182; Leibniz, Theodicy, p. 165.
- 113 Ibid., p. 178; Leibniz, Theodicy, p. 262.
- 114 Ibid., p. 77-8. Cf. T.E. Jessop, "Symposium", pp. 218-228, p. 223. on Hume's assumption which ties down "any possible inference to God to the one Ariadne-thread of causality".
- 115 A.E. Taylor, "Symposium", pp. 179-205, and p. 188. Cf. J. Boys Smith, "Hume's Dialogues Concerning Natural Religion", Journal of Theological Studies, XXXVII, (1936), 337-349, p. 349: "But it was against the limited argument from analogy, now best remembered from Paley's statement of it, that Hume's criticism was final, not against the thesis that, since matter apart from mind seems essentially indifferent to teleological order, and mind essentially teleological, the teleological order actually found in the world must be accounted for in all its aspects by the presence, in some form, of mind."
- 116 Taylor, "Symposium", p. 191.
- 117 Jessop, "Symposium", p. 224-5.
- 118 Ibid., p. 227-8.
- 119 Ibid., p. 225.
- 120 Ibid., p. 226.
- 121 Taylor, "Symposium", p. 195.
- 122 Laird, "Symposium", p. 215; Wollheim, Hume, p. 192.
- 123 Wollheim, Hume, p. 151.
- 124 Ibid., p. 148.
- 125 Ibid., p. 193-4.
- 126 Ibid., p. 135.
- 127 G.J. Nathan, "Hume's Immanent God", in Chappell, Hume, pp. 396-423, p. 421. Cf. R.J. Butler, "Natural Belief and the Enigma of Hume", Archiv für Geschichte der Philosophie, XLII, (1960), 73-100, p. 87f.
- 128 Wollheim, Hume, p. 135; p. 144.
- 129 Nathan, op. cit., p. 423.
- 130 Leibniz, Theodicy, Farrer's "Introduction", p. 32-3.

- 131 Taylor, "Symposium", p. 184.
- 132 Ibid., p. 192.
- 133 Wollheim, Hume, p. 126-7.
- 134 N.K. Smith, Dialogues, "Appendix D", p. 103-4.
- 135 Wollheim, Hume, p. 117, p. 122, p. 128-9, p. 138-9, p. 146-7, p. 152.
- 136 Hurlbutt, Hume, p. 173.
- 137 Wollheim, Hume, p. 158.
- 138 Ibid., p. 159.
- 139 Ibid., p. 176.
- 140 Ibid., p. 159.
- 141 Ibid., p. 172.
- 142 Ibid., p. 179.
- 143 Ibid., p. 181-2.
- 144 Ibid., p. 189f.
- 145 Ibid., p. 190.
- 146 Hurlbutt, Hume, p. 160f.
- 147 Wollheim, Hume, p. 140.
- 148 Ibid., p. 142.
- 149 Ibid., p. 154.
- 150 Ibid., p. 186. Cf. Nelson Pike, God and Evil, pp. 85-102, on "Hume on Evil", especially here p. 99-100. Cited here as Pike, "Hume". And for a recent comment on Pike's views, cf. D.F. Henze, "On Some Alleged Humean Insights and Oversights", Religious Studies, VI, (1970), 369-377.
- 151 Wollheim, Hume, p. 182; cf. p. 177.
- 152 Ibid., p. 178-9.
- 153 Ibid., p. 167-8.
- 154 Ibid., p. 172-3.

- 155 Pike, "Hume", p. 93-7.
- 156 Ibid., p. 95.
- 157 Wollheim, Hume, p. 173. Cf. Capitan, in Chappell, Hume, p. 391f.
- 158 Pike, "Hume", p. 97, and Capitan, p. 393: "Philo has turned the trick without proving or disproving anything, not even that mankind is unhappy. Cleanthes, himself, has shown that the only way to establish the divine benevolence and, consequently, natural religion itself is to stand in a quagmire."
- 159 Wollheim, Hume, p. 175-6.
- 160 Pike, "Hume", p. 97.
- 161 Wollheim, Hume, p. 185.
- 162 Ibid., p. 180-81.
- 163 Ibid., p. 183.
- 164 Ibid., p. 184.
- 165 Ibid., p. 184-5.

D. Immanuel Kant

On the topic of theodicy, as on many others, the writings of Kant are illuminating and instructive. In Kant's work there is material which illustrates very well the change of standpoint with regard to theodicy which took place in the mind of someone who was not only a brilliant critic, but a great constructive philosopher in his own right. Kant's examination of theodicy was conducted along with his critical analysis of the meaning and value of certain principles of explanation of the natural order. His estimate of those principles affected what he could say about physical evil as a topic in his theology. Much of what he had to say was available in English by the time of the publication of the Origin of Species. The method of approach which Kant had developed during the course of his career could perhaps have saved theologians from some of their acrimonious debates with scientists on the issues raised by the publication of the Origin. If one were now to adopt Kant's approach to theology, it might be that one would have to rule out any attempt to construct a modern theodicy on the Leibnizian model, however sophisticated. There might also be a positive gain to theology if it could be shown that Kant's approach made it possible to clarify some of the issues in the science-religion debate. In any case, it is worth-while to examine the work of the greatest philosopher of his day for his views on theodicy in relation to the developments taking place in the various fields of the natural sciences in which he had an interest.

So far as Pierre Bayle is concerned, it would seem that Kant would have read him as representative of the tradition of scepticism which continued to flourish in Europe throughout the seventeenth and eighteenth centuries. Sometimes Kant made a reference to Bayle in passing, and sometimes it is possible to discern a discussion of Bayle where he is not specifically mentioned.¹ Moreover, Kant, though operating more or less independently of a traditional theological "ethos", (for him it would have been pietism) clearly shared a number of Bayle's concerns. It may be, therefore, that his understanding of "practical reason" received stimulus not only from Rousseau,² but that it was to some extent shaped in his mind by his reading of Bayle.³ And it is at least possible that he took the measure of Bayle on the topic of evil also, and even that he found himself driven to a position not altogether unlike that of Bayle. Kant would hold to a rationally defensible faith, like Leibniz, though dependent on a defence different from the latter's, but felt all the force, like Bayle, of the manichean view of the universe and of man's experience of it.

Kant's major problem, however, was always Leibniz. His philosophical procedure has been said to take "the form of a continuous discussion of Leibniz", and included in that discussion was a questioning of whether Leibniz' understanding of being, knowing and evil, were not all too optimistic.⁴ The development of Kant's thought can be seen as an attempt to reckon with commitment to Leibnizian forms of thought, together with a critique of Leibniz.⁵ This is hardly surprising, given the importance of Leibniz' philosophy in Kant's era in Germany, for it was the first German deductive metaphysical "system" and was strongly

established in German higher education. Leibniz had often written in French to secure international attention to what he had to say, but German culture had taken his philosophy as its own expression. That culture "was strengthened by the alliance between the official Protestantism, the sobered pietism, and the modified liberalism of its defenders. Moreover, in this period of intellectual uncertainty, spiritual anarchy, and political and moral confusion, it respected the values which formed the very essence of the old régime and thus appeared as a conservative force tending to order and traditionalism."⁶ The Theodicy itself was available in Latin in 1719 and then in German in 1720;⁷ the Monadology was also available in both these languages by 1721,⁸ and the Clarke-Leibniz Correspondence in German in 1720,⁹ at Wolff's instigation. It is worth noting at this point that for Wolff and his followers the theological underpinning of Leibnizian optimism was rather obscured by pre-occupation with scientific achievement. The "best of all possible worlds" was now not so much a reply to Bayle's ~~manichaeism~~ as an expression of confidence in the new science. It remains to be seen to what extent Kant kept track of the theological issues, and thus distinguished himself from the Wolffians. For the scientists, and that included Kant, the Correspondence alone was a constant reminder of "the points at which the astonishing imagination of the librarian at Hanover were bound to clash with the solid convictions of the Newtonian scientists."¹⁰ The main point here is that Kant was exposed both to some of Leibniz' greatest work, and to sound criticism of it, since two of Kant's teachers, Schultze and Knutzen, had examined the notion of the pre-established harmony¹¹ in

particular. Even the earliest of Kant's "pre-critical" works, the product of his years as a private tutor, reflected both the profound influence of Leibniz on him as well as the signs of the development of the points on which he was so fundamentally to differ from him.¹²

Further, 1749 saw the publication of the full text of Leibniz' Protagaea, of 1691, known hitherto only in abstract in the Acta Eruditorum. The work exhibited in full a point of view hinted at in the Theodicy, in which Leibniz had raised the question of how one might make sense of the "ruins" of the earth's crust, the reminders of changes at which Moses had hinted in a few words.¹³ In the Protagaea Leibniz revealed that he had found it necessary to integrate his biological studies with his geological theories. He had been led, on the basis of his observations, to postulate the possibility of a certain degree of transformation having taken place within species.¹⁴ His theory of "preformation" would of course allow for that. Then Kant would presumably be aware of the great controversy of 1753¹⁵ which attracted attention all over Europe, about whether Leibniz or Maupertuis, currently the President of the Berlin Academy, had been the first to enunciate the "least action" principle. The significance of the principle for theology was that it was taken to be an expression of a higher reason ruling nature, as both Kant¹⁶ and Hume¹⁷ were to observe. In the course of the controversy, one of Leibniz' supporters, Koenig, produced a letter of Leibniz', which included an exposition of the principle of continuity.¹⁸ This principle was said by Leibniz to perhaps help to "establish several important truths in a genuine philosophy which rises

above the imagination to seek the origin of phenomena in the intellectual regions".¹⁹ This might upset "the commonly accepted rules based on the assumption of a perfect and absolute separation of the different orders of simultaneous creatures that fill the universe."²⁰ This kind of statement would probably allow for the possibility of the transmutation of one species into another, but whether or not it would be held to be authoritative for some kinds of explanation of nature, rather than others, Leibniz was not regarded as a figure from the past who could be ignored. His was a living voice providing stimulus to think afresh on some important subjects.

To turn now to Kant's own work, his papers of 1754 on the questions Has there been a change in the Rotation of the earth?²¹ and Does the earth grow old?²² announced an important work of 1753²³ (began as a competition essay for the Berlin Academy in 1754) and indicated some of its themes. "Has our globe already reached the degree of perfection for which it was destined or is it still in its infancy?" For Kant noted that "the same causes which bring a thing to perfection drive it in imperceptible stages on to its extinction."²⁴ Kant has therefore been held to anticipate "the view of the relatively uniform action of the existing physical causes in altering the physical conditions of the Earth, as worked out by Lyell in his Principles of Geology nearly a hundred years later, and now adopted by all geologists and physiographers."²⁵ A particular impetus here to pierce the rigid thinking of the eighteenth century²⁶ had been provided for Kant by the work of Thomas Wright of Durham.²⁷ The latter's book of 1750 on the

Original Theory or New Hypothesis of the Universe was reported in a newspaper abstract in Germany in 1751.²⁸ Kant's great work²⁹ of 1755 was entitled, Universal Natural History and Theory of the Heavens, or, An Essay on the Constitution and Mechanical Origin of the Whole Universe treated according to Newton's Principles, and was first published anonymously. Kant refrained from describing the published version as a "cosmogony",³⁰ though later used the word in the body of a major work of 1763,³¹ where he re-deployed some of the same material. It is clearly to be taken into account when considering his criticism of his own theology and theodicy later on in his life. (It may also be noted here that the work of 1755 was of considerable interest and importance to two such diverse thinkers as S.T. Coleridge and T.H. Huxley.)

Confident in his "security regarding the duties of religion"³² Kant embarked on his undertaking, which was to "discover the system which binds together the great members of the creation in the whole extent of infinitude, and to derive the formation of the heavenly bodies themselves, and the origin of their movements, from the primitive state of nature, by mechanical laws."³³ Here was his problem, of whether and how he could meaningfully talk of ascribing to nature by itself results in which at the same time "the immediate hand of the supreme being is rightly recognised." Kant saw in nature "the glory of the Supreme Being break forth with the brightest splendour",³⁴ and consequently thought that from nature may be derived "proofs which are drawn from the beauty and perfect arrangement of the universe",³⁵ which establish the existence of this supremely wise Creator. Nature

is not independent of the divine providence.³⁶ Rather, things of diverse natures "tend in combination with each other to effectuate harmonies and beauties" and in so doing acknowledge their common origin in "the Infinite Intelligence, the understanding in which the essential properties of all things have been relatively designed".³⁷ The principles of mechanics might explain the making of the universe, but mechanism is not an all-sufficient explanation for all subjects of discussion. He could say, "with intelligent certainty and without audacity: 'Give me matter, and I will construct a world out of it!'" i.e. give me matter and I will show you how a world shall arise out of it." But he is not in a position to make such a boast with regard to even "the lowest plant or insect". He cannot say, "Give me matter, and I will show you how a caterpillar can be produced". He maintained that in such an instance he was ignorant of the "real inner conditions of the subject and the complication of its manifold constituents."

Kant therefore suggested that the "origin of the whole present constitution of the universe, will become intelligible before the production of a single herb or caterpillar by mechanical causes, will become distinctly and completely understood."³⁸ (This last point is worth bearing in mind in connection with what Kant had to say in part of his Critique of Judgment.)

Kant continued his Leibnizian exposition by writing of the perfection of things moving the imagination, and of the rapture of the understanding in the contemplation of the variety and beauty of the universe,³⁹ formed in the "infinite receptacle of the Divine

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Presence". In God was "the storehouse of a true immensity of natures and worlds".⁴¹ Kant, however, allowed for an "evolution" of the universe, rather than for its being brought into being all at once. It was conformable to God's wisdom that the relations of the elements and substances of the world should evolve "out of their implanted universal laws by an unconstrained consecution".⁴² Yet there is a fundamental stability, the mark of the choice of God,⁴³ in the universe, since it evolves from "primitive matter", which with its qualities and forces lay at the basis of all change, and as the "immediate consequence of the Divine Existence" was both rich and complete. Kant had no hesitation in asserting that he found nothing that could "raise the spirit of man to a nobler wonder, by opening to him a prospect into the infinite domain of omnipotence" than that part of his theory which concerned the successive realization of the creation.⁴⁴ Infinite space, co-extensive with the divine presence, is that in which "is to be found" the provision for all possible formations, "buried in a silent night". God's aim is to gradually put his cosmos into an order which conforms to "the excellence of his plan". If we could see the whole of eternity, "we would also be able to see the whole of infinite space filled with systems of worlds and the creation all complete".⁴⁵ The realization of the creation begins with a "primary stirring" of nature, and man finds himself "in the neighbourhood of the centre", where nature has already evolved out of chaos, and attained its proper perfection.⁴⁶ The creation of the whole is clearly not the work of a moment, but it requires millions of centuries to form new systems of worlds, all developed in relation to that first

formative point.⁴¹

There could be no infallible demonstration of this - only recourse to analogy.⁴⁸ And he found analogy particularly helpful when he embarked on a sketch of a theodicy, in his discussion of the loss and destruction of things in God's developing world. Kant began by discussing the tendency of what had been brought to completion to disintegrate⁴⁹ - the topic of one of his papers of 1754. This principle established that the universe would again be fruitful of other worlds to compensate itself for the loss of some creatures, "because it is nothing else than the exercise of the Divine omnipotence". "Innumerable animals and plants are daily destroyed and disappear as the victims of time: but not the less does nature by her unexhausted power of reproduction, bring forth others in other places to fill up the void". If portions of the earth are buried in the sea, "at other places nature repairs the loss and brings forth other regions which were hidden in the depths of being in order to spread over them the new wealth of her fertility". The same kinds of assumptions apply to "worlds and systems", for "creation is always busy constructing new formations in the heavens, and advantageously making up for the loss".⁵⁰ So one need not be astonished to find a "certain transitoriness even in the greatest of the works of God", though from our point of view there seems also to be a fundamental stability in the construction of the world which makes it of endless duration, and gives grounds for confidence in God. (This concern with the "stability" of things remains throughout his career - in his Inaugural Dissertation of 1770, for one example.)

His pre-occupation with stability and permanence is an essential ingredient in his theodicy, and another feature of it is nature's apparent prodigality, proved by "the numberless new generations" which abound. "What an innumerable multitude of flowers and insects are destroyed by a single cold day! And how little are they missed although they are the glorious products of the art of nature and demonstrations of the Divine Omnipotence". Since even the production of nature's most excellent creatures costs nature nothing, the destruction of some creatures is a "necessary shading among the multiplicity of her suns".⁵¹

Nature as a whole, therefore, does not suffer, though infected air, earthquakes and inundations destroy whole races. The same general point applied to worlds and systems when they have played their part. Nature adorns eternity with changing scenes, and God occupies himself in incessant creation to make still greater worlds.⁵² On the one hand there is what Kant called the "vanity" which cleaves to finite natures, (referring to "revelation"⁵³), and on the other, "the renovation of fallen nature".⁵⁴ Even the greatest catastrophe may be regarded with confidence, as evidence of the common ways of providence.⁵⁵ Flower, insect, or world-system pay their tribute to mortality, each of them being but a mere point in comparison with the "Infinitude which creation has to exhibit in unlimited space throughout the succession of eternity".⁵⁶ The Phoenix of nature carried on the plan of the deity to "fill eternity, as well as all the regions of space, with her wonders".⁵⁷

This all seems to represent a range of speculative thinking as daring as anything produced by Leibniz, though Kant did not venture on an analysis of the calculation on which of the divine choice was based, - perhaps he pre-supposed this, as it had been attempted by Leibniz. His speculation is not about God's calculations, but about the development of the universe, whilst still trying to retain "stability" as essential in the course of the cosmogony. In the course of his career, he found that he could not pre-suppose the Leibnizian theology quite as Leibniz had done, though he still wanted to affirm faith in God in a rational and responsible way. The inability to presuppose Leibniz' particular theology contributed to a problem about the way in which he could affirm the fundamental stability of things, (with the concept of the fixity of species as its appropriate notion in the field of biology), and this in turn ultimately made it impossible for him to provide a theodicy in relation to physical evil. Yet a fundamental confidence in God, a confidence as secure as that of Leibniz, did not allow him to abandon theology. He insisted on attempting to construct a theology in relation to man's moral, social and political life, in other words, continuing with the Leibnizian programme to a certain minimal degree, and leaving open the question of whether such a theology could count as a theodicy, since it did not attempt to tackle the question of physical evil. In 1755, however, he seems still to have been thinking in terms of the Theodicy when thinking about man's own relationship to the physical world. There is no ultimate threat to man, for he can regard his own being with reverence, knowing that his soul is destined to survive all the transformations of his world, and "find in fellowship with the Infinite Being, the enjoyment

of its true felicity", free of "the fetters which keep us bound to the vanity of the creatures".⁵⁸ United with the source of all perfection, the soul will contemplate nature and see everywhere "utter security, complete adaptation".⁵⁹ God is thus the energy which is the "true attraction-point of all excellence".⁶⁰

This last theme depends upon a particular understanding of the "chain of being", for creatures "whose place of generation and abode"⁶¹ is near the centre of creation are "the lowest and most imperfect species which constitutes as it were, the beginning of the world of spirits". From this centre (where even the excellence of rational beings may be lost in a total want of reflection and thought) there is an "extended ladder" by which the "world of spirits, which rests on their altered dependence on matter" approaches the excellence of the Deity.⁶² One may well ask at this stage whether Kant was as confident about the goodness of the physical world as was Leibniz, or whether he was not already feeling the force of Bayle's points about the strength of the manichean case.

Another discussion of theodicy appeared in a publication of 1755, the New Exposition of the First Principles of Metaphysical Knowledge,⁶³ produced to qualify Kant to teach philosophy as well as science. Kant attempted to re-cast the notion of sufficient reason to cover the possibility of a determination of a thing which was not merely logical, but which depended upon its links with other actually existent things.⁶⁴ From this context emerged a criticism of "compossibility", central to

the Theodicy, and integral to the notion of the pre-established harmony.⁶⁵ Kant noticed the peculiarity of one feature of compossibility - that it did not depend solely upon the relation of the essences to the divine intellect, but rather upon the character of the "essences" themselves. Kant concerned himself particularly with the difference between the "intelligible" as Leibniz seemed to have understood it, and the intelligible nature of what is offered to man's senses. This critique of Leibniz was developed from positions Kant later found to be untenable,⁶⁶ and this is particularly true of his section "refutation of Doubts",⁶⁷ which included "a dialogue"⁶⁸ between Caius, the defender of the liberty of indifference, and Titius, the supporter of a determining reason". This material is virtually a re-presentation of some of the material of the Theodicy. With regard to "determining reason", F.E. England⁶⁹ drew attention to Kant's image of God as "fountain and gushing spring from which all things take their downward course", a figure drawn from Plotinus to illustrate the emanation of the various orders of being from God. England wrote: "the spring, overflowing, produces that which comes after it, and this in turn gives rise to the next stage and so forth. There is no actual dispersion of the higher into the lower forms, no diminution of the higher in giving rise to the lower. The order throughout is not a temporal, but a logical order of connection." And Kant also said that God does not seem able to "eschew the web which he himself began and which is woven conformably with his first move or expression in the future periods of succeeding time ..."⁷⁰

Further evidence of Kant's pre-occupation with Leibniz is found

in Kant's interest in a competition being organised by the Berlin Academy, the subject having been set in 1753 for 1755.⁷¹ The word "optimism" had made its appearance in the Dictionaries: "The connection of optimism with theodicy will be historically clear if we remember that the word optimism was first used in 1737 in the Mémoires de Trévoux, only twenty-seven years after the appearance of the Théodicée."⁷² The Academy declared that candidates were required to examine Pope's system as indicated in the proposition "All is right". Part of the discussion was to involve a comparison of Pope with "the system of optimism, or choosing what is best, so as to bring out clearly where they agree and where they differ." Hazard was clear that the competition was meant to be a discussion of the work of Leibniz in comparison with that of Pope,⁷³ (as the attention to the importance of the notion of God's "choice" perhaps indicated), though the anti-Leibnizians could not name Leibniz as the direct target of their criticism. On the 1st November, 1755, however, Lisbon had its notorious earthquake. Kant wrote a paper on the subject which came out in 1756 (the year which also saw the beginning of the Seven Years' War on German soil) discussing the origin of the worst disaster in Western Europe, in relation to his understanding of God's providence. This paper, The History and Physiography of the Earthquake which towards the end of 1755 shook a great part of the Earth⁷⁴ should be read as an attempt to relate the position he had exhibited in the Universal Natural History to the appalling natural disaster. (It was too early to appreciate the full horror of the war itself.) Kant's attempt to face a specific issue in the light of his theodicy brought him to assert that man's capacity for knowledge of the economy of the

earth must be understood to include his assessment of the recent dreadful events.⁷⁵ And man had to acknowledge that he had no right to "expect convenient consequences only from the laws of nature, which God hath ordered".⁷⁶ We would be foolish to suppose that "if Providence had consulted us, everything would have been better regulated for our advantage."⁷⁷ (One recalls that Leibniz also held the view that the happiness of rational creatures was not God's sole aim.) What man should do was to accommodate himself to nature, since he has also derived so many benefits from it - the same springs which produce health - giving mineral baths "owe their mineral property and warmth to the very same causes, from which happen in the bowels of the earth the inflammations that shake it".⁷⁸ Like Hume, Kant thought it was wrong to conclude that an earthquake was a punishment for sin, though his reason for that position was that it was presumptuous for man "to perspect the designs of the Divine decrees".⁷⁹ Whatever the disaster, Kant still maintained that "the whole complex of nature is a worthy object of the Divine Wisdom and of its dispositions". Although man cannot guess at "the views of Omnipotence in the government of the world", Kant had no hesitations in saying something about how man ought to live. Man was not born "to build everlasting cottages upon this stage of vanity".⁸⁰ He was rather to be stirred by disaster to act as "a beneficent instrument in the bountiful hand of the Almighty", bearing in mind that none of the goods of the earth could satisfy man's instinct for happiness.⁸¹ And an essay of 1759, Some Reflections on Optimism⁸² also exhibits the determination to maintain the Leibnizian stance. "From the point where I stand, armed with the insight granted to my feeble intellect, I shall look around as far as I can and learn

to understand more and more: that the Whole is the best, and that everything exists for the sake of the Whole."⁸³

The next work which is important for tracing Kant's interest in theodicy is a substantial piece of writing, published in 1763, produced after the "silence" of 1757-62, when he was establishing himself as a lecturer, and published only short papers. This work, The Only Possible Argument for the Existence of God,⁸⁴ represents an attempt to work out a theology which is not merely a repetition of Leibniz', as he had preferred it in the Theodicy, but which would in effect spell out Kant's own theological pre-suppositions, and to which his readers would be able to turn. Kant himself seems to have thought it directly appropriate to the Universal Natural History especially, since one section on "Cosmogony" drew on that work explicitly. Many other illustrations from scientific work were brought in, because he shared the conviction of some of his most distinguished contemporaries, that by means of "philosophy" man could ascend to the cognition of God. He seems to have been aware that some would regard an attempt at a new expression of theology with hostility and suspicion. He emphasised in the preface that the work was no more than a sketch, for he was already wary of those who wished "but for an apparent occasion to brand a publication with the bitter reproach of heterodoxy".⁸⁵ Kant wrote out his own a priori proof, which did not assume the existence of any particular thing, but which operated on the principle that the possibility of the existence of things is founded in an actual existence, the sum of all possibility.⁸⁶ This is the proof which is criticized as

an "illusion" in the Critique of Pure Reason, together of course with the other proofs which in this work of 1763 he discerned not to do justice to what is involved in a conviction of God's transcendent existence as Kant had come to understand it. (Not everyone would follow Kant in his self-criticism, - both the Leibnizians in Germany, and Coleridge in England, preferred this work of 1763 as providing the appropriate theological counterpart for "science".) Kant established to his own satisfaction in 1763 "the sufficiency, unity and independence" of God's existence "as a great ground", being careful also to urge the point that God is not "a blind necessary ground of other things" for he has "cognition and resolution".⁸⁷ The "internal possibility of things" invites us to make a "necessary reference to order and harmony and unity", - characteristics which in their turn require a reference to God.⁸⁸ The main body of the work is concerned with illustrations to support this point.

Since Kant's God is one whose characteristics include that of extreme transcendence, not only did he discard the kind of teleology satirised by Voltaire,⁸⁹ but also insisted that no reference was to be made to God's "wisdom" and "will" where "nature" would do instead.⁹⁰ This did not mean, however, that there was no meaningful reference for "God" - that the notion of "God" simply collapsed into that of "nature".⁹¹ Illustrations drawn from the differing aspects of man's physical equipment, and from the "creatures of both the animal and vegetable kingdom",⁹² led inexorably to a theological conclusion: that "all consistence, fruitfulness and beauty ... depend, by means of the essential order of nature, upon God." And another point he wished to stress was that

"something is not good because it happens according to the course of nature, but the course of nature is good provided that which flows there from be good. And God comprised in his decree a world, in which everything for the most part by a natural coherence fulfils the rule of the good; so he favoured it with his choice ..." ⁹³ It is precisely because things happen in accordance with laws universally effective that things can be referred to God as their ultimate "ground", to a transcendent creator rather than to an architect, or an "interfering" deity. ²⁴ It is the "first Divine disposition" that allows to animals and plants "a fitness, not only to develop, but actually to beget their like for the future according to a natural law" ⁹⁵ Such reference to a transcendent creator therefore seems to have made it possible for Kant to tolerate information being produced by the scientists about the way in which the order left to operate by God exhibits itself.

A microscope reveals

numerous species of animals in a single drop of water, rapacious sorts which, equipped with instruments of destruction, while they are ready to pursue others, are destroyed by more potent tyrants of this aqueous world; when I see the tricks, the violence and the scene of dissension in a particle of matter, and elevate my eyes in order to behold the immense space filled with worlds like clouds of dust, no human language can express the feeling, which such a thought excites, and all subtle metaphysical dissections fall far short of the sublimity and dignity peculiar to such an intuition. ⁹⁶

Moreover, since it was not always possible in the terms of the cruder theology which Kant was criticising to make sense of every kind of "law" in terms of an immediate divine intention, it seemed better to him to remove all such reference, rather than make use of it in some instances and not in others. For example, it might initially appear that there

could be some sense in talking of the beds of rivers having been excavated by God,⁹⁷ but it did not seem possible to make theological comments about the new population studies on which Stüssmilch had embarked. Rather than say that "Providence" ordered more boys than girls to be born, in order to make good the loss of young men "by war and dangerous sorts of employments",⁹⁸ Kant urged the search for other explanations, which did not invoke the deity. Yet whatever the issue, Kant recalled his readers to theology. The discoveries of the scientist were proofs of the great chain, which "even in the possibilities of things", united the parts of the creation that appeared not to concern one another,⁹⁹ and which had their source in the existence of God, in whom "lie ready the essences of things" according to "an excellent plan".¹⁰⁰

One particularly important passage is that which spells out what he meant by the divine "all-sufficiency", the concept of God to which men are led when they "venture to look behind the curtain that conceals from created eyes the mysteries of the Inscrutable", that "comprehends in itself everything possible to be thought". So he wrote, "What exists, whether it be possible or actual, is but something, so far as it is given by Him. A human language may let the Infinite speak to himself thus: I am from eternity to eternity, besides me there is nothing, something is so far as it is through me."¹⁰¹ (This particular passage was to be re-written by Kant in the course of his first Critique, in effect expressing his despair that he could not at that stage hold any more to a philosophical position which had allowed him to write this kind of theology, but yet continuing to acknowledge its strength.)

Kant would see later that although he had saved the reality of things from an immanent deity, or an interfering deity, he had not provided an answer to the question about how one could understand the concept of an immutable and all-sufficient God as the "ground" of a world in which were met "collision, want, mutability", all of which he was careful to specify were contrary to the designation of a deity. On this particular point, he had by this time broken with Leibniz' theology, in so far as Leibniz had allowed for the "metaphysics of competition" within the godhead, as the counterpart for what went on in the world.

However, Kant seems to have become increasingly uneasy about the relationship between his theology and the material to which he was paying attention in the developing biological sciences. The theology he had produced seemed to "fit" with his Cosmogony, but there was now a question to face about its "fit" with other material. From this stage onwards, he seems to have found that the concept of the fixity of species was the notion which expressed in the biological context the "stability" which marked the world God had chosen, though he found the problem of physical evil increasingly intractable. And along with these problems and fundamental to them, was the shift in his philosophical stance, his "copernican revolution",¹⁰² which affected both the "objectivity" of the "stability" of the world, and the "fixity of species", and also the "objectivity" of what he could say about God.¹⁰³ Towards the end of his life he found himself tackling only the shreds, comparatively speaking, of the Leibnizian programme of theodicy.

We may now look at the material which reveals Kant's interest in the relevant sciences. Another paper of 1763, Attempt at Introducing Negative Quantities into Philosophy,¹⁰⁴ showed Kant to be establishing some of his typical positions. The main subject of discussion was a work of Maupertuis on what Cassirer¹⁰⁵ called "empirical psychology". This was an attempt to apply mathematical methods to physical sensation, and therefore to "estimate the sum of happiness and misery in human life"¹⁰⁶ - a question discussed by Leibniz. Kant thought this to be an insoluble problem in any case, and rejected Maupertuis' negative conclusions. If one were to accept, as Kant did, that in some sense the increase in the perfection of the world was possible, one of the implications might be not that misery predominates over happiness, but that "displeasure" as much as "pleasure" was an effective stimulus to man in promoting that perfection, - again, a Leibnizian point of view.¹⁰⁷ One point to be aware of here, is the criticisms of Kant that have been levelled at him for his reaction to Maupertuis' writings as a whole. Bentley Glass, in his essay on "Maupertuis", made the comment that Kant had ignored "the later development of the theory of evolution, including the origin of man from lower forms of life, a theory which has inescapable implications for the sources of mental, emotional, and behavioural phenomena".¹⁰⁸ However, it would seem to be asking a great deal of Kant, with his demand for coherent evidence from his fellow-scientists, to plump for a theory later found to be helpful in its applicability to a thesis about evolution, embracing human beings, and all other living creatures. Kant adopted a pattern of explanation which was predominant in his time, though it happened not to be the one which was eventually preferred by biologists. He had what seemed to him to be philosophical

and theological grounds for doing so.

Bentley Glass was probably following the lead given by A.O. Lovejoy¹⁰⁹ in his estimate of Kant and we may pay some attention to that estimate. We may take Kant's own directions about the areas of contemporary study which interested him, and which he thought were important to instruct students in disciplined method, - for example, the announcement of his lectures for 1765-66.¹¹⁰ Under the general heading of "Metaphysics" he proposed to treat of "empirical psychology", (with a different focus from that of Maupertuis). Kant understood psychology for this particular purpose to be "the metaphysical science of Man gained from experience", which would enable his hearers to grasp "some interesting facts serviceable for application in life".¹¹¹ Kant was thus, according to Cassirer, the man who "introduced anthropology as a branch of study in German universities and who lectured on it regularly for decades".¹¹² The word "anthropology" has a wide range of meanings, however, even amongst professional "anthropologists", - to forget this leads to an apparent misapprehension of Kant such as Lovejoy showed in his comments on him. He wrote of Kant's Anthropology of 1798 that it "does not, indeed, deal chiefly with the questions to which his earlier anthropological writings are devoted; the greater part of it is a rather miscellaneous but not uninteresting combination of his 'critical' psychology and ethics with the purely temperamental convictions, tastes, and prejudices of a septuagenarian bachelor professor, on matters of every-day life and social intercourse".¹¹³ In his introductory remarks to his Anthropology,¹¹⁴ however, Kant said that the work was a handbook of one of the lecture courses he had been giving for

thirty years.¹¹⁵ When he wrote that "Anthropology, treated physiologically, describes what Nature has made of Man",¹¹⁶ he may well be referring to the elements of his "empirical psychology". But the main focus of interest for him was in the study of anthropology, "treated pragmatically", which stated what man, "as a freely acting being can and shall make of himself ." His sources of information for this included not biological studies, but "world history, biographies, plays and novels", and he remarked that a town such as Königsberg was ideal "for gaining knowledge concerning men and the world without travelling ." Whilst Lovejoy was undoubtedly right in general to maintain that Kant had an aversion from the hypothesis of organic evolution,¹¹⁷ there seems to be little point in looking to the Anthropology for evidence either for or against his interest in the hypothesis. Lovejoy was also probably right to point out that Kant exhibits an overall confidence in the future of the world and the creatures in it in its final epoch,¹¹⁸ relying on the work of Bonnet, but Kant was simply employing an imaginative extrapolation of Leibnizian thinking, rather than paying attention to contemporary studies which happen to have been seen, in retrospect, to have contributed to the working out of the hypothesis of organic evolution. Kant seems to have used Bonnet's kind of conception of the future in at least one other paper,¹¹⁹ expressing some of his ideas on political philosophy. All in all, it would seem that his Anthropology should be considered primarily in connection with his writings on ethics rather than with some of his other works which are concerned with biology, and to which attention will shortly be given.

To return to the lecture announcement, we may note that after his consideration of "empirical psychology", Kant proposed to deal with cosmology and ontology, and then to pass on to two further major areas of study, logic and ethics. Finally, attention would be given to "physical geography".¹²⁰ (When he was putting his Anthropology into a form suitable for publication he had not felt able to struggle with the manuscript of these latter lectures.)¹²¹ He said of physical geography in the "announcement" that "it describes the interconnection between lands and sea and those things which influence trade and commerce", and in its second part "considers Man throughout the earth and distinguishes what is moral in him". So he noted that "When we compare different sorts of men and consider the moral conditions of earlier times, a great map of the human race unfolds itself before our eyes".¹²² The course was to conclude with a study of "political" geography. The whole project was attractive to Kant because it opened up the prospect of creating a unity of knowledge, as well as furthering the general education of his pupils.

Before turning to his later comments on geography, we may notice Kant's review of 1771 of Moscati's lecture which had been given in Paris.¹²³ This lecture was of interest to him in his search for instructive analogies in his study of man. The main thesis of the lecture seems to have been that "the upright gait of Man is enforced and against nature. Man can maintain himself and move in an upright posture only with discomfort and disease". Man had been misled by reason to deviate from his first animal organisation. Upright posture fitted best the development of his reason, at the cost of physical

discomfort. It is hardly safe to conclude anything from the review except that it provides evidence of Kant's attention to material which would help him to comprehend the present state of man. It is not clear that Kant intended to assert as his own view "the descent of civilized man from quadrupedal ancestors",¹²⁴ though even if he had, he would not necessarily have committed himself to the concept of the mutability of species.

In a special announcement of 1775 about his lectures on Physical Geography, Kant offered some comments On the different races of Man.¹²⁵ The lectures were to be given as "a useful entertainment rather than a laborious occupation", and the paper was "more like a game than a profound exploration", though it was, nevertheless, intended to offer something to the intellect. Kant noted the views of two groups of interpreters of nature in its biological aspects. There were the systematists, whose work of labelling creatures was an aid to recognition and memory, and their critics who thought rather in terms of "natural division" concerning "stocks based on kinships". For the latter group, such a pattern of explanation better assisted the human understanding in its endeavours to come to grips with the phenomenon of groups of different creatures.¹²⁶ To trace all the developments that have arisen would be to produce a "History of Nature", though Kant clearly loathed any project which could lead to "audacious conjectures".¹²⁷ What he was prepared to allow as an appropriate interpretation of the evidence available was that modification of creatures according to their circumstances did take place, but only within each particular species.

The differences between creatures were not to be explained by "local creations", but nor were they the result of "chance or general mechanical laws", - these could not produce such adaptations as a thicker hull for a grain of wheat, or a new layer of feathers in a bird.¹²⁸ Rather, it was Leibniz' "preformation" theory which was here seen to safeguard both divine providence and creatures' independence. Kant described "preformation" as "an admirable provision of nature to equip her creatures by given inner devices for all future circumstances". This applied to men as to other creatures. "Just as chance and mechanical causes cannot originally produce an organized body, so they cannot add to the generative power anything that propagates itself."

The same view of the species question was to appear in his review of Herder's book, Ideas for a Philosophy of the History of Mankind¹²⁹ and Kant's Determination of the Concept of a Human Race¹³⁰, both of 1785. Herder's book is not of major importance for this discussion, despite Beck's description of it as a "theodicy", meaning by the word in this instance "the theory of man's harmony with the rest of creation", - a "leibnizian living universe".¹³¹ What is useful, however, is to note at this point Benz's comment¹³² that the concept of "evolution" was introduced by Herder as the antithesis of "revolution", in an historical and political context, before its restriction primarily to the scientific context, and certainly before it had its present connotations. Benz suggested that because of its origin the notion never lost its idealistic connotations, despite its later emphasis, and connection with biology and physicality. Evolution for Kant also¹³³ was related to the

imperfection of the human species in the political and social context. In nature, Kant would at this stage in his career concede the notion of a gradation between the various species of organisms, with a progressive approximation up to man as a useful way of organising a view of the multitudes of species¹³⁴ but would not tolerate¹³⁵ an understanding of gradation to mean the development of one species from another or of man from the same living stem as other species. We may also note a comment of Kant's in his criticism of Herder that reveals how far his views had changed from the days of the 1755 Universal Natural History. Now he wrote that "nature allows us to see nothing else than that it abandons individuals to complete destruction and only maintains the type. But then we demand to know if the soul of man will also survive his destruction here on earth; this can be concluded perhaps on moral - or if you like metaphysical - grounds, but never by any kind of analogy to visible creation."¹³⁶

To return to the species question, we find in his paper on the concept of a human race: "When I hear of the effect of the imagination on the foetus in pregnant women or the docking of the tails of English horses owing to which - it is said - Nature alters her procreation, I have a maxim which opposes such facts. In the whole of organic nature, in spite of all changes in individual creatures, the species maintains itself unchanged."¹³⁷ His employment of a "scholastic" formula provoked Lovejoy to comment that Kant craved "a universe sharply categorized and classified and tied up in orderly parcels".¹³⁸ Kant could not allow either to man's imagination or to his technology "the capacity

of transforming the original pattern and altering the generative power itself". As he had asserted ten years earlier, he could not allow the truth of what seemed to him to be something like a ghost story or a tale of witchcraft, for "inheritance can only be based on those original forms or dispositions which lie in the genus itself".¹³⁹ Similarly in another paper of 1788, On the Use of the Teleological Principles in Philosophy¹⁴⁰ he re-stated his by now familiar position, by saying that he commonly met with "the shallow view that all the differences in our genus are the result of chance and may arise and disappear accidentally. If it were so, permanent species would be non-existent".¹⁴¹ Again, he wanted to distinguish what he believed to be properly scientific explanation from imaginative interpretations of nature. "Where every empirical inference comes to an end, where scientists operate with self-invented forces, following unheard-of and never verifiable laws, they are outside natural science, even if they still speak of natural causes." He himself was prepared to employ teleological explanation though not theological explanation, provoked by scientific investigation into organisms, every part of which functions as both means and ends. Teleological explanation is usefully called into play in the consideration of how the "laws of gradual development" might account for the present appearance of different species.¹⁴²

To understand the way in which Kant was now operating, one has to take seriously the clue he gave when he wrote that he had a "maxim" to oppose to the proposition that nature altered her procreation. To elucidate this, it is necessary to take notice of what he had by this

time said in some of his other published work. For example, in his Inaugural Dissertation¹⁴³ of 1770 (offered on the occasion of his appointment to a chair at Königsberg that year) he made a number of important points. He now repudiated the activity of the intellect understood as a repetition of God's thinking, since the human intellect suffers from the conflict of antinomies.¹⁴⁴ He could no longer maintain the relationship of things to human reason on the analogy of "an infinitely extended approximation" to God's understanding of things, though he recognised that "this special conception of scientific knowledge as an approximation to divine thought gave wings to science to make new discoveries".¹⁴⁵ But he was, nevertheless, prepared to go on using certain principles of orderly explanation which had been associated with that conception of scientific knowledge. There were two - that "all things in the universe take place in accordance with the order of nature", and "principles are not to be multiplied beyond what is absolutely necessary", which were related to a third, another expression of his concern with the permanence and stability¹⁴⁶ of the creation, as a counterpart of his concept of God.

No matter comes into being or passes away and all the vicissitudes of the world concern its form alone. This postulate, at the instigation of the common intellect, is spread abroad through all the schools of philosophers, not because it has been taken as discovered or demonstrated by arguments a priori but because, if you admit matter itself as in flux or transitory, nothing at all would be left which was stable and durable which might more fully promote the explanation of phenomena according to universal and perpetual laws and in this way promote the use of the intellect.

This theme of his view of 1755, is here reaffirmed in the light of his awareness of proposals being made with increasing weight about how to interpret biological phenomena, and to be born in mind for the

Critique of Judgment.

This is not the place to elaborate on Kant's philosophical revolution,¹⁴⁸ exhibited in full in his Critique of Pure Reason, written between 1771-1781,¹⁴⁹ and the expression, philosophically grounded, both of his caution and of his confidence. But in the Critique he explained why he continued to employ various explanatory principles, to which he again paid specific attention: Entities were not to be multiplied unnecessarily;¹⁵⁰ no variety was to be considered the lowest;¹⁵¹ and the third here, which related ^{to} the other two, was that of the "affinity of all concepts",¹⁵² by which he meant the principle of continuity. A proposition such as these, or the one that species maintain themselves unchanged, was a maxim of reason.¹⁵³ A maxim might be derived not from the constitution of the object but from the interest of reason in respect of a certain possible perfection of the knowledge of the object, given a concern to make the "manifold" intelligible. To treat maxims as "yielding objective insight" led to endless conflict, whereas to treat them as reflecting different interests of reason with regard to a subject which "lies too deeply hidden to allow of one's being able to speak from insight" into its nature, was to adopt more or less helpful rules to guide one in one's investigations.¹⁵⁴ There were other instances he would cite, and employ in various ways.¹⁵⁵

One should at this stage also notice a fresh stimulus that had been provided by the work of Leibniz. Kant was on this matter reflecting on the relationship between logic and biology in terms of class concepts,¹⁵⁶

important for both biologists and theologians of his day, discussed afresh as the result of the publication by Raspe of Leibniz' New Essays in 1765. This publication, and the collection of more of Leibniz' work published by Dutens in 1768, made possible the appreciation of Leibniz' views¹⁵¹ in a way that complemented the Theodicy in particular. A whole section of material in the Critique may be read as Kant's reaction to the new Leibniz, and to the renewed insistence on a physics understood as a science of the living, rather than as mere "mechanism". Kant thought about Leibniz at this period in comparison with de Buffon and Linnaeus,¹⁵⁸ and his reflections may also be read as a comment on their intellectual successors, to whom Cassirer drew attention in connection with his exposition of this portion of the Critique.¹⁵⁹ What may be especially noted here are Kant's comments on the notion of the "ladder of being", given that the maxims of reason do not yield objective insight into inscrutable nature:

the steps of this ladder, as they are presented to us in experience, stand much too far apart; and what may seem to us small differences are usually in nature itself such wide gaps, that from any such observations we can come to no decision in regard to nature's ultimate design especially if we bear in mind that in so great a multiplicity of things there can never be much difficulty in finding similarities and approximations.

And yet the "maxim" of the "ladder" served to "mark out the path towards systematic unity" of knowledge. Coleridge, sometimes supposed to be an outstanding interpreter of Kant, missed these fundamental points when producing his own version of what could be meant by the "ladder of being".

On these issues alone one can perhaps already see how it was that Kant could later write¹⁶⁰ of his Critique that it was his apologia for

Leibniz, against his less critical followers. Other points applicable to the Theodicy may also be noticed. For instance, Kant made some comments about Leibniz' "intellectual system of the world".¹⁶¹ It may be significant that Kant expressed great admiration for Plato on this topic.¹⁶² To express such approval of Plato and to criticise him served incidentally to remind the reader of the attractiveness of Leibniz without also criticising him explicitly. Kant maintained that Plato rightly discerned a proof of "an origin from ideas" not only in the moral sphere but in nature itself. "A plant, and animal, the orderly arrangement of the cosmos - presumably therefore the entire natural world - clearly show that they are possible only according to ideas." The imperfection of things compared with the idea of what is most perfect of its kind implied for Plato their complete determination in the "Supreme Understanding".¹⁶³ It is "the totality of things, in their interconnection as constituting the universe, that is completely adequate to the idea." Kant only dissociated himself from Plato when he suggested that the latter had exaggerated in his "spiritual flight from the ectypal mode of reflecting upon the physical world order to the architectonic ordering of it according to ideas",¹⁶⁴ though his teaching still had great merit in the areas of morality, legislation and religion generally. One may suppose that Kant found Leibniz to be as valuable in these areas also, although he had long since abandoned Leibniz' kind of project for discussing the operation of the divine perfections - Leibniz' own particular type of exaggeration. On the other hand, Leibniz had made a fundamental mistake in what he had to say about evil. One might accept Linnaeus' principle that "Everything which nature has itself instituted is good for some purpose." For

example, "Even poisons have their use. They serve to counteract other poisons generated in our bodily humours, and must have a place in every complete pharmacopoeia." And yet, as Kant went on, "The objections against the persuasions and complacency of our purely speculative reason arise from the very nature of reason itself, and must therefore have their own good use and purpose, which ought not to be disdained."¹⁶⁵ He was thus provoked to make a more extended comment on a point he had made before, and which shows him beginning to tackle the problem with which he had left himself in 1763. He stated¹⁶⁶ that

the principles that realities (as pure assertions) never logically conflict with each other is an entirely true proposition as regards the relation of concepts, but has not the least meaning in regard either to nature or to anything in itself. For real conflict certainly does take place ... where two realities combined in one subject cancel one another's effects. This is brought before our eyes incessantly by all the hindering and counteracting processes in nature ...

The Leibnizian view involved *viewing* evils as "merely consequences of the limitations of created beings, that is, negations, since negations alone conflict with reality". True though this may be of concepts, it may not be held true of appearances, where "contradiction, whereby the concept of a thing is removed" is inadequate as a description of what goes on. This would be better described as "the conflict of reciprocal injury, in which each of two real grounds destroys the effect of the other - a conflict which we can represent to ourselves only in terms of conditions presented to us in sensibility". This is where one begins to see how a new philosophical stance reinforces a particular theological stance, although Kant is not yet ready either to express his despair at the contemplation of the natural order - that was yet

to come, or to attempt a re-phrasing of theodicy within certain limits, which depended upon the abandonment of the attempt, however metaphysically expressed, to "solve" the problem of physical evil.

One must also try to make an assessment of the influence of Hume on Kant at this point, since Kant, as shown by the complexity of the Critique, was open to consider many different points of view. The notice of Kant's lectures of 1765 had included a reference to Hume as an example of one who had made a good start in the study of ethics, an approach which for Kant was yet lacking in precision and completeness.¹⁶⁷ Some of Hume's work, including his Enquiry had been translated by Sulzer between 1754-6, but it was not until 1772, when a translation of Beattie's Essay on the Nature and Immutability of Truth was published, that Kant began to work out the consequences of Hume's thinking for his own philosophical position, which embraced a whole range of problems beyond the scope of this discussion. Beattie's work transmitted to Kant those parts of the Treatise which had no counterpart in the Enquiry, and Kant now found himself thinking through a criticism of empiricism with which he in part agreed, without involving himself in a complete destruction of metaphysics and theology. Kant "strives to determine how much of Leibniz' belief in the legislative power of pure reason can be retained after full justice has been done to Hume's damaging criticisms".¹⁶⁸ It is not that Kant took Hume's writings and offered a commentary on them so much as that he refuted Hume's whole stance, discussing points which arose in relation to it even if Hume did not make the points, or indeed see all the possible consequences of his empiricism.¹⁶⁹

The celebrated David Hume was one of those geographers of human reason who have imagined that they have sufficiently disposed of all such questions by setting them outside the horizon of human reason - a horizon which yet he was not able to determine. Hume dwelt in particular upon the principle of causality, and quite rightly observed that its truth, and even the objective validity of the concept of efficient cause in general, is based on no insight, that is, on no a priori knowledge, and that its authority cannot therefore be ascribed to its necessity, but merely to its general utility in the course of experience, and to a certain subjective necessity which it thereby acquires.¹⁷⁰

Hume's scepticism may be a convenient resting place for human reason, "where it can reflect upon its dogmatic wanderings and make survey of the region in which it finds itself, so that for the future it may be able to choose its path with more certainty", but it is no place for permanent settlement.¹⁷¹ For all the ingenuity Hume displayed he shared a defect "in common with all dogmatists, namely, that he did not make a systematic review of all the various kinds of a priori synthesis ascribable to the understanding ." For example, not only the principle of causality, but the principle of permanence, also anticipates experience.¹⁷²

The special material of possible influence to be looked for here is of course the Dialogues, and its discussion of physical evil. Hamann's¹⁷³ translation of the Dialogues was given to Kant to read sometime early in August, 1780. Schreier published his translation in 1781, and Hamann did nothing more with his version, perhaps, as N.K. Smith said, "because he was not unwilling to escape the notoriety of seeming to father so sceptical a work."¹⁷⁴ The same commentator also noted that "Kant, in his immediate acceptance of the main argument of the Dialogues, as in his appreciation of Hume's arguments in the Treatise,

outstripped his contemporaries and nearly all his successors."¹⁷⁵

It is noteworthy how faithfully the section of the Critique entitled "The Impossibility of the Physico-Theological Proof"¹⁷⁶ reproduced Hume's arguments, though obviously Kant did not employ their literary form. Kant's sympathetic handling of the proof is evidence of the value he saw it to have. He "sees how clearly akin the attitude which lies behind the tendency to take it seriously is to the discipline of morality."¹⁷⁷ Apart from the Critique itself, Kant's own introduction¹⁷⁸ to it, written for publication in 1783, is also instructive. Kant here wrote about Hume's philosophical position, his relationship to his contemporaries, and the jolt Hume's writings gave to Kant himself.¹⁷⁹

His concluding section, "Of the Boundaries of Pure Reason", included his discussion of the Dialogues specifically.¹⁸⁰ Kant's view of these was they were an instance of mistaken scepticism, and he specially noted the supposition that our discursive intellect was alone the archetype of every possible understanding.¹⁸¹ Whilst it was true that there was no inference from the world to God, Hume's objections to deism were weak. In any case, Hume had missed a crucial point, concerned with that theism "which is supposed to come into being by a closer determination of our concept of the highest being which in deism is merely transcendent."¹⁸² God's transcendence does not exclude all other assertion about him. One can make nothing of deism, but given a classical defence of a particular kind of predication, a certain correction could be made of Hume,¹⁸³ and so he retained a place for theology on the boundary of reason.¹⁸⁴

However, Kant did not discuss Hume's treatment of evil in the

Dialogues. His primary concern was to redefine his own position with regard to Leibniz' philosophy and theology, and he may already have been clear that he had a point of view on theodicy to which Hume did not contribute. He had already discovered that he could not construct a theodicy on the basis of an explanation of the operation of the divine perfections in creation, and in so far as Hume's concern was not with the existence of God, but with his nature, they both shared an apprehension of the difficulties involved. Moreover, although he could work out a "closer determination" of his concept of God, and as he was to show, could demonstrate the validity of teleological thinking, the coherence of a view of nature with a particular theology seemed to him to be lost forever. He asked himself: "Why has Providence placed many things which are closely bound up with our highest interests so far beyond our reach that we are only permitted to apprehend them in a manner lacking in clearness and subject to doubt - in such a fashion that our enquiring gaze is more excited than satisfied?"¹⁸⁵ We have, for Kant, "to surrender the language of knowledge though we still have sufficient ground to employ, in the presence of the most exacting reason, the quite legitimate language of a firm faith."¹⁸⁶ Although he found that he had to abandon Leibniz' epistemology he shared Leibniz' faith and referred to it as a "conviction" which was "subjectively sufficient",¹⁸⁷ and so interwoven with his moral sentiment, that there was as little danger of his losing the one as the other.¹⁸⁸ This faith would eventually enable him to attempt to cope with the problem of moral evil, if not with physical evil. And "belief" referred to "the guidance which an idea gives me, and to its subjective influence in that furthering of the

activities of my reason which confirms me in the idea and yet does so without my being in a position to give a speculative account of it!"¹⁸⁹

To leave that point for the moment, we may now pay attention to the fact that most important for Kant was his criticism of his own position of 1763, and of the kind of metaphysical faith which he thought he had established.

Unconditioned necessity, which we so indispensably require as the last bearer of all things, is for human reason the veritable abyss ... We cannot put aside, and yet also cannot endure the thought, that a being, which we represent to ourselves as supreme among all possible beings, should, as it were, say to itself: 'I am from eternity to eternity, and outside me there is nothing save what is through my will, but whence then am I?'¹⁹⁰

There is more at stake here than the choice of a limited range of anthropomorphic language,¹⁹¹ though certainly this has to be employed, for Kant wanted to deny to his concept of God even that a priori certainty which he had once believed was justifiable. God's transcendence was to be thought of in accordance with his "Copernican revolution". "God" was to be thought of as an Idea, "a necessary concept of reason".¹⁹² He then salvaged theology from the charge of irrelevance by drawing attention to the point that he was led to such an Idea by reason itself, and this realisation suggested that the Idea might have a "regulative" use.¹⁹³ Still wanting a way of explaining the possibility of the universe itself,¹⁹⁴ in terms of "a supreme intelligence, which in originating the world, acts in accordance with wise purposes",¹⁹⁵ he thought of this idea in a variety of ways. For example, he thought of God as "a transcendental substrate that contains,

as it were, the whole store of material from which all possible predicates of things must be taken".¹⁹⁶ Or one might say of the Idea in reply to Hume that it is "the archetype (prototypon) of all things, which one and all, as imperfect copies (ectypa), derive from it the material of their possibility, and while approximating to it in varying degrees, yet always fall very short of actually attaining it".¹⁹⁷ It might also still be considered as the supreme reality which must "condition the possibility of all things as their ground, not as their sum",¹⁹⁸ but whatever was to be said, it was with the important proviso that "we are left entirely without knowledge as to the existence of a being of such outstanding pre-eminence ." All that may be responsibly affirmed is that one should "look upon all connection in the world as if it originated from an all sufficient necessary cause".¹⁹⁹ This was the nearest approach he would allow himself to the summa intelligentia, the God of the Leibnizian theist.²⁰⁰ He had other interesting ways of referring to this "God", as for example "an ideal without a flaw, a concept which completes and crowns the whole of human knowledge".²⁰¹ Another alternative was that of a focus imaginarius, an "illusion" which was "indispensably necessary if we are to direct the understanding beyond every given experience (as part of the sum of possible experience), and thereby to secure its greatest possible extension, just as, in the case of mirror-vision, the illustration involved is indispensably necessary if, besides the objects which lie before our eyes, we are also to see those which lie at a distance behind our back".²⁰² Using again the language of his

work of 1763 he could on this basis view "the sum of all appearances (the sensible world itself)" as having "a single, highest and all-sufficient ground beyond itself, namely, a self-subsistent, original, creative reason."²⁰³ With such an "original ground" Kant could think of the "systematic unity of the manifold in the universe, and thereby the greatest possible empirical employment of reason".²⁰⁴ It is in this light that he could represent "all connections as if they were the ordinances of a supreme reason of which our reason is but a faint copy." None of this, however, anymore than his position of 1763, enabled him to re-embark on the construction of a theodicy in Leibnizian style.

We may, however, trace the thread of Kant's concern with theodicy in his essay of 1786, The conjectural beginning of the history of mankind.²⁰⁵ This essay is not, despite its title, an examination of contemporary opinion on man's biological origins,²⁰⁶ but an exercise in "practical" theology. Kant seems in this essay to have an eye on what was being done in his time on the study of man but was somewhat wary of the results. He may have thought that the work was lacking in coherence, or unsubstantiated by adequate evidence. He may also have seen more clearly than others its possible implications. Any use which he made of the results is a use with which he could in fact dispense, since his pattern of discussion of man's moral life would be familiar to his readers from some of his other works which did not invoke "scientific" material. The more seriously scientific studies were to be taken in the future, however, the more a discussion

of man's nature which took so little notice of the implications of the evidence they were to offer would in its turn be held to be of little importance. What matters for the present purpose is Kant's insistence that it is "corruption of morals" to be discontented with Providence, though "he has traced out for us in our terrestrial world a path so difficult".²⁰⁷ He remarked that the "hardships and miseries of life" will often draw from man "the wish for a paradise, the creature of his imagination, where he may dream or trifle away his existence in tranquil inactivity and constant peace".²⁰⁸ This is elsewhere expressed as Man's longing for a "golden age", a state in which man imagines himself free from want, - "the pure enjoyment of life from care dreamt away in idleness or trifled away in puerile amusements - an earnest desire, which makes the Crusoes and the voyage to the south-sea islands so charming ...".²⁰⁹ Man could not be content with such a paradise, given his distinctively human equipment. For Kant, contentment with Providence is the source of courage under all apparent hardship. Such contentment may also bring about in man a willingness to recognize that his own fault may be the cause of some of the "evil" from which he suffers, and that the remedy may be self-amendment.

Also important for the understanding of Kant's theology at this time is what he says that is relevant to theodicy in his second great Critique, that of Practical Reason of 1788.²¹⁰ In this work, his discussion of pleasure and pain²¹¹ and his estimate of their relevance to his endeavour to ascertain the fundamental principles of his austere ethical views, are open with some justice to Iris Murdoch's comment²¹²

that Kant "wants to segregate the messy warm empirical psyche from the clean operations of the reason ." Kant approved of the Stoic who cried out: "Pain, however thou tormentest me, I will never admit that thou art an evil ". Pain need not diminish the worth of a man's person, but could rather serve to raise his pride, when a man could be conscious that "he had not deserved it by any unrighteous action by which he had rendered himself worthy of punishment ." ²¹³ It is true that as a being belonging to the world of sense, man's reason must "attend to the interest of his sensible nature" though reason was not itself to be used "merely as an instrument for the satisfaction of his wants as a sensible being ." ²¹⁴ The point was that "good" and "evil" are properly referred to actions, not to sensations, ²¹⁵ and action results from the exercise of the human will, which should be rationally determined. Kant therefore treated the physical context of man's life as a hindrance to his moral life. Man's desires and inclinations from which he is never free and which jeopardise the value of the rest of his actions, spring from physical causes, and these could never of themselves coincide with the moral law. ²¹⁶ This would seem to make inevitable the minimal place which Kant allowed to man's emotions in his ethics, - "a kind of suffering pride which accompanies, though it does not motivate, the recognition of duty ." ²¹⁷ Although there is this lack of harmony between man's physicality and his ability to discern his obligations, man still seeks for happiness, and that happiness depends on "the harmony of physical nature with his whole end". ²¹⁸ There is no guarantee whatsoever that man will in this sensible world receive the happiness he may come to deserve because he is a being "that belongs to the world as part of it"

and is "therefore dependent on it", and "cannot by his will be a cause of this nature, nor by his own power make it thoroughly harmonise, so far as his happiness is concerned, with his practical principles."

Kant, picking up themes from the last part of the first Critique, therefore postulated "the existence of a cause of all nature, distinct from nature itself, and containing the principle ... of the exact harmony of happiness with morality".²¹⁹ God is to be understood as the "highest original good" whose ultimate end in creating the world is the morality of rational beings. Kant agrees with those who think that what glorifies God is "respect for his command, the observance of the holy duty that his law imposes on us, when there is added thereto His glorious plan of crowning such a beautiful order of things with corresponding happiness".²²⁰ But in distinction from Leibniz, he must also say that we do not know that this world is "the most perfect whole possible", for we do not also know all possible worlds (in order to be able to compare them with this)", - we cannot hope ever to see the world as God sees it.²²¹ Nevertheless, he could still suggest that "thus what the study of nature and of man teaches us sufficiently elsewhere may well be true here also: that the unsearchable wisdom by which we exist is not less worthy of admiration in what it has denied than in what it has granted".²²²

These samples of writing from this Critique represent a considerable change in Kant's thinking since 1755, provoked by the development of his philosophical position in relation to his understanding of God,

and the consideration of what now turned out to be for him an intractable problem. Still fundamentally confident in God, his attitude to physical reality is increasingly ambiguous. A physical nature which seriously jeopardises the possibility of virtuous action, and a physical environment which does not of itself coincide with virtuous action so as to bring about man's happiness, in effect argues for Kant's now operating with a view of reality which would lend strength to the manichean case. Like Leibniz, he held to a rationally defensible faith, though without an analysis of the operation of the divine perfections in relation to creation, but like Bayle, he felt the full weight of grief for the fact that pain and suffering seem to be integral to the existence of a created order. He now found himself operating with a belief in a creator of the physical universe of which man in this life is a part, -- yet without an answer to the question about why God should not bring about the coincidence of happiness with virtue in this life. Such a question could not perhaps even be asked of a God whose paramount characteristic was his transcendence, so understood as to preclude any worship of him except that which might be thought to be implicit in man's obedience to self-imposed moral principles.²²³

Moreover, as he had indicated in his review of Herder, Kant could no longer feel absolutely confident that his soul was destined to survive all the possible vicissitudes of existence and find fellowship with God. It is therefore a mistake to think that all that Kant had to say about God in relation to nature at this time is in effect expressed in the famous passage about the starry heavens above and the moral law within, which are as sources inspiring awe, accessible

to him as God is not.²²⁴ His view of the self as "angelic",²²⁵ independent of animality and even of the whole sensible world, functions as consolation, for the very magnificence of the starry heavens, and what they are - "a countless multitude of worlds" - which he had discussed so many years before, also means that man's importance as an "animal creature" was annihilated. Such a creature, "after it has been for a short time provided with vital power, one knows not how, must again give back the matter of which it was formed to the planet it inhabits (a mere speck in the universe) ." This passage should be read in connection with one in his third and last Critique of 1790, in the section of it entitled "Critique of Teleological Judgement". Here Kant described what Allen W. Wood called man's "moral despair" about the sensible world, and the exhaustion of hope to which it may lead.²²⁶ Righteous men in the world,

no matter how deserving they may be of happiness, will be subjected by nature, which takes no heed of such deserts, to all the evils of want, disease, and untimely death, just as are the other animals on the earth. And so it will continue to be until one wide grave engulfs them all - just and unjust, there is no distinction in the grave - and hurls them back into the abyss of the aimless chaos of matter from which they were taken - they that were able to believe themselves the final end of creation.²²⁷

The context of this utterance is that of Kant's estimate of habits of teleological thinking, an estimate which he had begun to develop in the 1760s. As he put the point in his first Critique, he seemed bound

so to employ my reason as if everything were mere nature. Purposive unity is, however, so important a condition of the application of reason to nature that I cannot ignore it, especially as experience supplies me so richly with examples of it. But I know no other condition under which this unity

can supply me with guidance in the investigation of nature, save only the postulate that a supreme intelligence has ordered all things in accordance with the wisest ends.²²⁸

Kant had earlier²²⁹ said in support of this position that "A certain, unformulated consciousness of the true use of this concept of reason seems indeed to have inspired the modest and reasonable language of the philosophers of all times, since they speak of the wisdom and providence of nature and of divine wisdom, just as if nature and divine wisdom were equivalent expressions". He urged that "it must be a matter of complete indifference to us, when we perceive such unity, whether we say that God in his wisdom has willed it to be so, or that nature has wisely arranged it thus."²³⁰ His instructions were that we were to "follow out the physico-mechanical connection in accordance with universal laws, in the hope of discovering what the teleological connection actually is. In this way alone can the principle of purposive unity aid always in extending the employment of reason in reference to experience, without being in any instance prejudicial to it."²³¹ When he came to publish his third Critique, Kant did not "reinstate the older teleological metaphysics. He tries to show that its doctrines are not true of objective reality in the scientific sense but arise from certain modes of thought which are, so he believes, unavoidably adopted by man when he reflects about the phenomena of life and his own experience."²³² What he had to say about teleology was brought into relationship ^{with} what he had to say about the maxims in accordance with which it was appropriate to discuss the natural order, and in the light of this, he re-considered what he could say about theodicy.

In his "reflection" on the phenomena of life he took, for example, the structure of a bird on which he commented: "the hollow formation of its bones, the position of its wings for producing motion and of its tail for steering ... all this is in the highest degree contingent if we simply look to the nexus effectivus in nature, and do not call in aid a special kind of causality, namely that of ends (nexus finalis)". Nature, "regarded as mere mechanism could have fashioned itself in a thousand other different ways without lighting precisely on the unity based on a principle like this".²³³ The familiar maxims of scientific enquiry had made their appearance in the "Introduction" to the whole work,²³⁴ where Kant drew attention to their character:²³⁵

For it is quite conceivable that, despite all the uniformity of the things of nature according to universal laws, without which we would not have the form of general empirical knowledge at all, the specific variety of the empirical laws of nature, with their effects, might still be so great as to make it impossible for our understanding to discover in nature an intelligible order, to divide its products into genera and species so as to avail ourselves of the principles of explanation and comprehension of one for explaining and interpreting another, and out of material coming to hand in such confusion (properly speaking only infinitely multiform and ill-adapted to our power of apprehension) to make a consistent context of experience.

The possibility of being completely baffled by nature despite the availability of such "scientific" maxims is still there even when the concept of "purposiveness" is called into play: "the universal idea of nature, as the complex of objects of sense, gives us no reason whatever for assuming that things of nature serve one another as means to ends, or that their very possibility is only made fully intelligible by a causality of this sort."²³⁶ The teleological estimate, problematical as it is, involved no pretence to "explain" nature though it is,

as Kant said, "at least one more principle for reducing its phenomena to rules in cases where the laws of its purely mechanical causality do not carry us sufficiently far."²³⁷ So his approach of 1763 to crude teleology was now philosophically-grounded. Thus he wrote:

To say ... that the facts that vapour falls from the atmosphere in the form of snow, that the ocean has its currents that wash into these regions the wood grown in warmer lands, and that sea-monsters containing quantities of oil are to be found there, are due to the idea of some benefit to certain poor creatures underlying the cause that brings together all these natural products, would be a very hazardous and arbitrary assertion.²³⁸

Nor may one invoke divine creation in relation to the apprehension that an organism as compared with a watch, for example, is a "machine" which "possesses inherent formative power, and such, moreover as it can impart to material devoid of it - material which it organises."²³⁹

Kant sounded a further note of caution when he insisted that "We do well to consider even things that are unpleasant to us, and that in particular connections are contra-final",²⁴⁰ though, as in his first Critique, proceeded to do his best to see what good some of these might nevertheless serve. He still felt the attraction of a contemplative and optimistic view of the whole.²⁴¹

We may regard it as a favour that nature has extended to us, that besides giving us what is useful it has dispensed beauty and charms in such abundance, and for this we may love it, just as we view it with respect because of its immensity, and feel ourselves ennobled by such contemplation - just as if nature had erected and decorated its splendid stage with this precise purpose in mind.

But he could not be satisfied with such a view²⁴² although he could continue to try to do justice to it, in a way not wholly dissimilar to that of his work of 1755. Thus he supposed that it was absurd "to

hope that may be another Newton may some day arise, to make intelligible to us even the genesis of but a blade of grass from natural laws that no design has ordered"²⁴³, though it would be presumptuous to assert that such intelligibility could never be achieved. (This is a more cautious position than the one he displayed in his 1775 paper, when he said that organisms could not be produced mechanically.) His conviction was that although we cannot discern an Author of the world, "we are utterly unable to ascribe the possibility of ... physical ends to any other source other than an intelligent Being ." Also, he returned to the material of the first Critique in his endeavour to say something more positive about such a being. He said that we could form the notion of an "intuitive" rather than a "discursive" understanding,²⁴⁴ and in this way expanded his distinction between an intellectus archetypus and an intellectus ectypus,²⁴⁵ so as to procure for nature a super-sensible real ground albeit unknowable to us.²⁴⁶ But his ban on the employment of the divine understanding to "explain" things in the world was permanently in force.²⁴⁷

the concession that a supreme Architect has directly created the forms of nature in the way they have existed from all time, or has predetermined those which in their course of evolution regularly conform to the same type, does not further our knowledge one whit. The reason is that we are wholly ignorant of the manner in which the supreme Being acts and of His ideas, in which the principles of the possibility of the natural being are supposed to be contained, and so cannot explain nature from Him by moving from above downwards, that is a priori.

Leibniz' kind of theodicy was definitely precluded.

Lovejoy's view on Kant's third Critique was that the latter had "acquired the deplorable habit of affirming both sides of a contra-

diction and leaving it to the 'supersensible' to reconcile them.²⁴⁸ Lovejoy, however, did not relate his analysis of what Kant had to say about nature to Kant's critical standpoint. He drew upon Kant's familiar warning about human pretensions in interpreting nature, and his demand for empirical evidence of such "happenings" as certain water animals transforming themselves by degrees into marsh animals, and from these after some generations into land animals.²⁴⁹ But he did not pay attention to the philosophical, and one may say theological reasons why Kant maintained this position. Kant's position had changed,²⁵⁰ to some extent, and one may surmise that he wanted to write out the possible alternatives to despair about obtaining insight into nature. For example, one possibility was to go through "the vast creation of organized beings in order to see if there is not discoverable in it some trace of system, and indeed of a system following a genetic principle."²⁵¹ Such a system might lead to what would seem to be "the wonderful simplicity of the original plan, which has been able to produce such an immense variety of species by the shortening of one member and the lengthening of another" One might even go so far as to suspect that all forms have "an actual kinship due to descent from a common parent" and that they might even be traceable back to the "lowest perceivable stage of nature". The reverse of this procedure would be to suppose²⁵² "mother earth" giving birth "to creatures whose form displayed less finality", these in their turn producing others which "adapted themselves more perfectly to their native surroundings and their relations to each other", until there was a restriction to production of "definite species incapable of further modification"

Yet a third variant,²⁵² which was nearest to what has elsewhere been seen to be Kant's own position, was that of the "system of pre-establishment", whereby "the Supreme Cause would only endow the original products of His wisdom with the inherent capacity by means of which an organized being produces another after its own kind, and the species preserves its continuous existence, whilst the loss of individuals is ever being repaired through the agency of a nature that concurrently labours towards their destruction ." More precisely, Kant wanted to define this as a "system of epigenesis" or of "generic preformation", meaning by this that one might regard "the productive capacity of the parents, in respect of the inner final tendency that would be part of their original stock; and, therefore, the specific form, as still having been virtualiter preformed."²⁵³ This theory could well be described as "evolution"²⁵⁷ so long as it was carefully distinguished from that theory of pre-formation which operated by thinking of individuals having been preformed. The advantage of the theory of epigenesis, which Kant does not here exactly present as his own view - only presenting the arguments of an hypothetical advocate of it - was most clearly stated:²⁵⁵

For as regards things the possibility of whose origin can only be represented to the mind according to a causality of ends, epigenesis none the less regards nature as at least itself productive in respect of the continuation of the process, and not as merely unravelling something. Thus with the least possible expenditure of the supernatural it entrusts to nature the explanation of all steps subsequent to the original beginning. But it refrains from determining anything as to this original beginning, which is what baffles all the attempts of physics, no matter what chain of causes it adopts.

Lovejoy's point of view on Kant was in general correct. He particularly drew attention²⁵⁶ to the fact that Kant distinguished the notion of the transformation of species from the notion of the generation of things from "crude inorganic matter", and that he had learned that "the admission of a common descent of different organic species is not necessarily inconsistent either with his hypothesis of 'purposive predispositions' or with those doctrines of the completely teleological character of organisms, and of their independence of all merely external causes of modification, which that hypothesis was designed to safeguard." But to refer to Kant's position as simply "a deplorable habit" is hardly enough to do justice to Kant, whether or not he was right in the biological theory he preferred. Kant at least envisaged the possibility of a theory of evolution which would involve the transformation of one species into another (a suggestion of Cassirer's which Lovejoy said was incorrect)²⁵⁷ even though Kant's fundamental philosophical stance did not permit him to say whether any of the theories about nature which he described were objectively right or wrong. All he did was to adopt the one which seemed to him to do justice to the evidence he had at his disposal. He was certainly still taking notice of what was going on in the relevant areas of study. In 1795 he wrote²⁵⁸ to J.F. Schiller about a proposed new journal, and said

the paper in the second monthly issue which deals with sex differences seems to come from a very good brain; however I cannot puzzle it out. Similar ideas concerning a real kinship going through the whole realm of nature have been expressed before. Such things sometimes cross one's mind, but one does not know what to do about them. Thus the fact that all fertilization in both organic realms requires two sexes to propagate their kind, always struck me as most astounding and as an abyss for thought. We can hardly imagine Providence inventing this order just for variety. We have reason to believe that propagation is not possible otherwise. This opens up a prospect into an incalculable problem with which one can do absolutely nothing -

no more than with what Milton's Angel tells Adam about the Creation: 'Male light of remote suns mixes with female light to unknown ultimate purposes'.

It is in the writings of Cassirer that there is to be found a juster appreciation of Kant on this subject, and only in taking notice of Kant's real position can one indicate the kind of theodicy he proposed. Cassirer pointed out that the eighteenth century mind "had come to rest in a fixed and definite world of forms. The reality of things was rooted in this world; their worth was determined by it. The century rejoiced in the unmistakable precision of things, in their clear and sharp outlines and firm boundaries, and it viewed the faculty of drawing such precise boundaries as the highest subjective strength of man and at the same time as the basic power of reason."²⁵⁹ By the time Kant wrote his Critiques he had long since abandoned the supposition that such an understanding of things could objectively be "known". But what he continued to think about in the "Critique of Teleological Judgement" was man's "knowing" of the world of forms, and the rules for research into nature. So Cassirer pointed out that Kant had "tracked down the hidden problem contained in Linnaeus' work", and that in "establishing the principle of formal purposiveness he spoke as the logician of Linnaeus' descriptive science".²⁶⁰

In acting as Linnaeus' logician, one might think that he was thinking in terms of a theodicy when he maintained that "Man" is the end and purpose of the animal and vegetable kingdoms. They exist in relation to him, "and the multifarious uses to which his intelligence teaches him to put all these forms of life. He is the ultimate end

of creation here upon earth, because he is the one and only being upon it that is able to form a conception of ends, and form an aggregate of things purposively fashioned to construct by the aid of reason a system of ends."²⁶¹ However, as we have seen, one of Kant's problems about understanding man in this way was that he was an animal species within nature, - a nature, as he had already indicated, that both repairs the loss of individuals as it concurrently labours to their destruction. He asserted that "so far from making man, regarded as one of the many animal species, an ultimate end, nature has no more exempted him from its destructive than from its productive forces, nor has it made the smallest exception to its subjection of everything to a mechanism of forces devoid of an end."²⁶² The habitat of the earth "shows no trace of any causes but those acting together without design, and in fact tending towards destruction rather than calculated to promote genesis of forms, order, and ends." The "archaeology of nature", is a study to which "nature itself invites and summons us", but not, apparently, for our comfort. The present structure of the earth revealed by such a study "has all the appearance of being the outcome of the wild and all-subduing forces of a nature working in a state of chaos."²⁶³ There could be no consolation for man "by means of nature and its beneficence", despite his being as a species "in complete and fundamental accord" with nature. Nature, in its "destructive operations - plague, famine, flood, cold, attacks from animals great and small, and all such things" has as little spared man as any other animal. Man's "inner natural tendencies", also betray him into self-invented misfortunes. Happiness in the realm

of nature is impossible and he must make great efforts towards the achievement of his own civilized culture.²⁶⁴

It is when Kant embarked on the elaboration of what he meant by this latter point that he introduced the sub-heading, "The final end of the existence of a world, that is of creation itself."²⁶⁵ Only in the development of this theme, and not that of physical nature, could he talk of the satisfaction of reason, and repeat and extend his discussion of the perfections of God on which he embarked in his Critique of Practical Reason.²⁶⁶ God may be supposed to have the attributes which Kant could prescribe on the basis of his understanding of "moral teleology". Nevertheless, since the world is as it is, there is nothing to prevent man falling into utter despair except a kind of courage which seems to him to be indispensable if he is not to do "injury to moral sentiment".²⁶⁸ Hence he tried to provide an answer to Hume's puzzle about the peculiar attractiveness of "design" theology. Man cannot believe that evil done by man makes no difference, because it conflicts with "a lurking notion, however obscure,"²⁶⁹ of something after which man feels himself bound to strive. What seems to be indispensable is the conviction of one principle upon which men could "conceive it possible for nature to harmonize with the moral law dwelling within them. It is that of a Supreme Cause ruling the world according to moral laws." Kant would further propose that it was "this moral interest that first aroused attentiveness to beauty and the ends of nature. This would be admirably calculated to strengthen the above idea, though it could not supply its foundation." And again, "that the physico-teleological proof produces conviction

just as if it were also a theological proof is, therefore, not due to the use of ends of nature as many empirical evidences of a supreme intelligence. On the contrary it is the moral evidence, which dwells in every man and affects him so deeply, that insinuates itself into the reasoning." Kant would go so far as to say that this "moral evidence" would "continue to retain its full force were we to meet with no material at all in the world, or only ambiguous material, for physical teleology."²⁷⁰ What he also might have said was that it retained its full force for him despite man's experience of physical evil, as has already been indicated. Faith in God in this context as in the first Critique, was not simply to make use of a fruitful principle of explanation for science. The conception of God now "acquires the privilege of figuring in our assurance as a matter of faith", and this is "the moral attitude of reason in its assurance of the truth of what is beyond the reach of theoretical knowledge."²⁷¹ Kant therefore could urge man to accept into his moral perspective a cause harmonizing with himself as the end of nature, and to accept it with deepest veneration - wholly different from any pathological fear - and willingly bow down before it.²¹²

Whilst in the final throes of producing the Critique of Judgement, however, Kant was faced with a revival of conviction in the validity of the Leibnizian tradition by some of his opponents, led by Eberhard.²⁷³ Yet another competition had been set by the Berlin Academy in 1788 which was to be a discussion of the progress made in metaphysics since the death of Leibniz. The competition was revived in 1790, the time limit extended to 1792 and then 1795.²⁷⁴ By the time Kant

brought out what he had written in connection with this competition,²⁷⁵ he could afford to distinguish more clearly the points at which he differed from Leibniz. But in his earlier answer to Eberhard, he had to try to meet his opponent on his own ground, and therefore interpreted Leibniz in such a way as to show that Leibniz' work needed completion by the critical philosophy. It was, after all, a "bitter irony"²⁷⁶ that Eberhard was able to quote The Only Possible Proof of 1763 to support one of his criticisms - that Kant himself had agreed that there was a possible rational knowledge of God. Kant was determined to deny that he rejected the value of Leibniz' work, but had nevertheless to show how it was that his own work was necessary. What was at stake for Eberhard was "the secular heritage of a doctrine which had allowed Germany to take its place in European thought."²⁷⁷ He maintained that he himself alone, seemed to be capable of recognising what the philosophers of the past had meant, beyond what they had actually said.²⁷⁸ Kant therefore endeavoured to show that the principle of sufficient reason, the monadology and the pre-established harmony were anticipations of his own themes.²⁷⁹ The last idea, especially, was to be understood as indicated in the Critique of Judgement to mean that "we must conceive a certain purposiveness in the arrangement by the highest cause of ourselves as well as of all things outside of us. This may, to be sure, be understood as already placed in creation (pre-determined) ..." Such a harmony extended to the agreement between the realms of nature and grace which Kant described as "the realm of purposes in relation to the final purpose, i.e. mankind under laws". This is the harmony required by morality which "absolutely cannot as

the Critique shows be conceived from the nature of the beings in the universe. Rather, as an agreement which for us at least is accidental it can only be conceived through an intelligent first cause".²⁸⁰

Martin commented, "It is very rare in the history of philosophy for a great thinker to establish so close a connection with a predecessor, and this bold interpretation contrasts favourably with the many places in the Critique of Pure Reason in which Leibniz is criticised, often with little success."²⁸¹ The interpretation is such as to distort what Leibniz said, but Kant had to show that he was not as revolutionary as had first been supposed, though he had something important to say. "He wished to have the great name of Leibniz on his own side in order to counter the tactics of his opponent." Moreover, the work shows "that Kant was able to conduct a public debate, that he knew how to use vigorous ad hominem arguments, and that he could extricate himself from a difficult situation with a skill which commands our admiration."²⁸²

Kant was not only answering serious criticism from other thinkers at this time, but from the state too. In 1786 Frederick William II had succeeded Frederick the Great to whom Kant had dedicated some of his own works. Frederick William's head of the department dealing with churches and schools was Wöllner, who published an edict threatening punishment to teachers who deviated from what was taken to be Biblical religion. Writings dealing with religion were to be censored. Kant was an obvious target. He had shown where he stood on the subject of censorship in 1784²⁸³ and 1786²⁸⁴ in the Berlin Monthly. But the outbreak of the French Revolution had signalled a reaction to anything

that might be thought not to protect the old order, and this reaction affected Kant's production of further comment on theological issues. Thus when Kant had finished the first book, "Concerning the indwelling of the Evil Principle with the Good, or, on the radical evil in human nature" of his Religion, he had it published in April 1792, in the Berlin Monthly which had moved to Jena to escape the censorship.²⁸⁵ Kant had submitted this book to the censor in 1791, and it had been passed because it was judged not to be for the general reader. The second book, "Concerning the conflict of the good with the evil principle for sovereignty over man", was quickly finished and submitted to the censor in July. Permission to publish was refused, because the work was in part an attack on a certain kind of theology and on a reactionary censorship related to that theology. Nevertheless, Kant obtained approval for the work from the Faculty of Theology at Königsberg and the Faculty of Philosophy at Jena, and published the whole work in 1793.²⁸⁶ An understanding of the context explains the comments about censorship in the "preface" to the first edition and throughout the work,²⁸⁷ including his attention to Bayle's text.²⁸⁸

Kant said that he represented "in the four²⁸⁹ following essays, the relationship of the good and evil principles as that of two self-subsistent active causes influencing men". So he wished to discuss man's moral life in "manichean" terms, and in this sense was offering a re-appraisal of Bayle's problem. It would, however, be a mistake to think that Kant is a "manichean",²⁹¹ if that were understood to mean that he was offering a metaphysically correct explanation of man's moral

dilemmas. Such an explanation is ruled out by his philosophical position, as by his theological convictions. This is not to say that there are no passages²⁹² in the work which might not be relevant to a discussion of a theodicy derived from nature. One may note especially a moment in which once more his attitude to man's physicality is revealed, in a note in which he discussed the gospel records of Christ's resurrection. What he found peculiarly difficult about these was the concept which he thought them to involve, "of the materiality of all worldly beings, which is, indeed, very well suited to man's mode of sensuous representation but which is most burdensome to reason in its faith regarding the future."²⁹³ Also, on occasion he could be seen to be reconsidering some of the themes of classical theodicy, as when he wrote:²⁹⁴

Take a man who, honoring the moral law, allows the thought to occur to him (he can scarcely avoid doing so) of what sort of world he would create, under the guidance of practical reason, were such a thing in his power, a world into which, moreover, he would place himself as a member. He would not merely make the very choice which is determined by that moral idea of the highest good, were he vouchsafed solely the right to choose; he would also will that such a world should by all means come into existence (because the moral law demands that the highest good possible through our agency should be realized)...

However, at the time when he was completing Book I of the Religion he had another essay completed, and this is the work to which one should turn to discover his final comment on theodicy. On the Failure of All Philosophical Essays in Theodicy²⁹⁵ insisted as one might expect that attention must be transferred away from a discussion of the divine attributes in relation to the problem of evil, and given to an analysis of the experience in which men encounter evil, and how they cope with

their experience. The essay is a condensed exposition of Kant's approach to theology in the course of which he shows the futility and the presumption of those who try to "defend" God. Kant reminded the reader that "our reason is absolutely inadequate to the insight of the relation which a world, that we may always know by experience, bears the Supreme Wisdom; for then all further essays of opiniative human wisdom to know the ways of Divine Wisdom, are totally rejected."²⁹⁴ The world, "as a divine publication of the designs of his will" is often "a shut book" to us, and it is practical, rather than speculative reason, which may be considered "as the immediate declaration and voice of God, whereby he giveth a meaning to the letter of his creation."²⁹⁷ The book of Job epitomised this position for Kant. One issue of the book was that

God deigned to disclose the wisdom of his creation to Job on the side of its inscrutableness chiefly. He let him view not only the beautiful side of the creation, where ends comprehensible to man set the wisdom and the beautiful care of the Author of the world in a clear light, but the frightful side, by naming productions of His potency to him and among them even pernicious dreadful things, every one of which seems to be adjusted for itself and its species answerably to the end proposed, but with regard to others and even to men destructive, baffling the end, and not agreeing with a universal plan arranged by goodness and wisdom; whereby he however sheweth the disposition and the preservation of the whole announcing the Wise Author of the world, though at the same time his ways, which are inscrutable to us, must be hidden even in the physical order of things, how much more then must they be so in its connexion with the moral order (which is yet more impenetrable to our reason).²⁹⁴

Job was forgiven because of his honesty, though Kant wryly remarked that he would very likely have "experienced a bad fate before a tribunal of dogmatical theologians or an inquisition."²⁹⁹

Consequently, what Kant did in the last few years of his life, was to shift his attention to re-expressing his conviction in the "providence" of God.³⁰⁰ It is not therefore wholly fair of Collins to write:³⁰¹

Along with expressing the repugnance of a theodicy to one's religious sensibility, however, Kant also ruled out any philosophical discussion of divine providence and justice. He failed to note the difference between the way that these themes are treated in a deductive theodicy and in a realistic philosophy of God. The latter restricts itself to the bare proposition that God produced the world through wisdom, justice and mercy and does not attempt to deduce the divine purposes or set up a calculus or divine choices.

Kant had written in the Religion a note³⁰² explaining what he meant by the word "fortunate": "An expression of everything wished for, or worthy of being wished for, which we can neither foresee nor bring about through our own endeavours according to the laws of experience, for which, therefore, if we wish to name its source, we can offer none other than a gracious Providence." Kant's "realistic philosophy of God" had found a basis in "practical reason" and could be expressed in his "political" writings where some of his most "optimistic" assertions about human life are to be found. So Cassirer wrote:³⁰³

Kant displays a Rousseauist outlook and mentality when he describes as mankind's greatest problem the establishment of a society of citizens which administers law universally, and when he regards the history of mankind in general as the fulfilment of a hidden plan of nature, designed to achieve an internally and, for this purpose, externally perfect constitution. The theodicy problem can be solved only in and through the state. It is man's business and it is his loftiest task to accomplish the justification of God - not by means of metaphysical broodings over happiness and unhappiness and over good and evil but by freely creating and freely shaping the order in accordance with which he wants to live.

Cassirer elsewhere emphasised how Kant differed profoundly from Rousseau in his renunciation of any demand for happiness, of any longing for a

mythical age in which man did not have to struggle for his culture.³⁰⁴

Kant hoped for "gradually advancing reform" towards a new state of affairs. "As for revolutions which might hasten this progress, they rest in the hands of Providence and cannot be ushered in according to plan without damage to freedom."³⁰⁵ We may briefly indicate how he sometimes attempted to integrate his political optimism with a picture of nature in this period when he was working out his final rejection of classical theodicy going back first of all to his work in the 1780s. In his Idea for a Universal History with a Cosmopolitan Purpose of 1784 he wrote of man's natural impulses, "the sources of the very unsociableness and continual resistance which cause so many evils", which at the same time "encourage man towards new exertions of his powers and thus towards further development of his natural capacities. They would thus seem to indicate the design of a wise creator -- not, as it might seem the hand of malicious spirit who had meddled in the creator's glorious work or spoiled it out of envy."³⁰⁶ There is a hidden plan of nature for the development of the human species and in the fulfilment of this plan lies the "justification of nature or rather perhaps of providence". He asked, "For what is the use of lauding and holding up for contemplation the glory and wisdom of creation in the non-rational sphere of nature, if the history of mankind, the very part of this great display of supreme wisdom which contains the purpose of all the rest, is to remain a constant reproach to everything else?"³⁰⁷ Further, some of the themes of Religion appear in his later essays³⁰⁸ which operate with this "political optimism". In The End of All Things³⁰⁹ of 1794 he insisted that the world is not the battleground of two

perpetual principles of being, the good and the bad,³¹⁰ any more than it could be understood in terms of other analogies which represented the abode of men "very despicably",³¹¹ such as an inn, a house of correction, a madhouse or a common sewer. Practical reason does its best in the furtherance of man's best aims, and leaves the rest to Providence, "a concurrence of Divine wisdom to the course of nature".³¹²

The theme of "perpetual peace" in the Religion figures as the title of his essay of 1795, On Perpetual Peace.³¹³ The guarantee of such peace is given to man by nature, and Providence is the name for the purpose manifested in the course of nature, in relation to the origin of the world, as maintaining the course of nature, and as guiding the world for special ends.³¹⁴ Man is not to invoke "providence" instead of a "physico-mechanical" cause of phenomena, but may introduce the idea of "a divine concurrence" in indicating the faith that "God will make good the imperfection of our human justice, if only our feelings and intentions are sincere and that by means beyond our comprehension, and therefore we should not slacken our efforts after what is good."³¹⁵ Kant readily enough spoke of "nature"³¹⁶ rather than God, so long as he was talking of "what nature does for her own ends with regard to the human race as members of the animal world",³¹⁷ and changed to "Providence" when he at last came to talk of "justification" of the "course of the world". So, once again he proposed that "it seems that, by no theodicy or vindication of the justice of God, can we justify Creation in putting such a race of corrupt creatures into the world at all, if, that is, we assume that the human race neither will nor ever can be in a happier condition than it is now."³¹⁸

In conclusion, one may therefore suggest that Kant had attempted to tackle the idea that one could have, as the counterpart to one's theology, a particular thesis about the way in which nature, in the biological sense, was ordered. He had found no absolutely necessary coherence between his concept of God, and the view of nature he preferred, though one seemed to suit the other, given his particular understanding of God. Thus far, his theology of a transcendent creator, and his view of nature, could both in a sense survive the shift in his philosophical stance, exhibited in full in his series of Critiques primarily, and also in his shorter essays. Leibniz had taken the particular theological enterprise of a speculative contemplation of God to its limits. Kant came to see that there could be no stage at which he could say that human knowledge of creatures was a replication in any sense of the divine knowledge of creatures, and yet continued to think of creatures in relation to God with a persistence that might seem astonishing were one not conscious of his fascination with the stance of Leibniz.

Like Bayle, however, Kant found that there was no solution to the question of man's experience of living in God's world, a world apparently hostile to man's discernment of his possible ultimate value. This hostility constantly threatened his view of nature in its possible relationship to God. Although he could never entirely abandon the attempt to say something about the beauty and order of nature, faith for him also became an expression of his stance as a moral being, standing "against" the natural order. The faith in God which he shared with Leibniz did not allow him to abandon altogether every aspect of

the Leibnizian programme for theodicy. He restricted the scope of his attempt to contribute to that programme to the endeavour to find a coherence between his theology and man's ethical and political life, with all the wariness engendered by his critical standpoint. Whether such an endeavour, which did not provide a theodicy of physical evil, deserves the title of "theodicy", remains another question.

What could have been learned from Kant, had his opinions been assimilated by the relevant people in time, was a certain detachment, not to say humility, about man's ability to assess the works of his creator. Kant had looked at most of the possibilities which so excited various "philosophers" in England. The heat could have been taken out of the debate on the Origin if it had been seen that the issue was one of finding more or less adequate patterns of explanation which could be adopted in accordance with their helpfulness to the task in hand - that of making sense of biological phenomena. There need have been no commitment to the suggestion that the principles of explanation which referred to the alternative patterns necessarily expressed what was "objectively" true of the creation as it came from the hand of its creator. No-one need then have gone on arguing as though the concept of the fixity of species was an essential bulwark of a theodicy of physical evil. Nor need it have been supposed that there was only one principle of explanation that could cohere with theology, or which indeed was the sole and sufficient one for the understanding of the natural order itself. And it might have been

seen that the principles of science and the fundamental issues of religion had a more complex relationship than perhaps was supposed, if indeed, they were essentially dependent upon one another.

Yet Kant had been so concerned to emphasise the transcendence of God, thus saving nature from his interference, and displaying it as a subject for scientific enquiry, that even had his work been appreciated, it would not inevitably have followed that his God would be preferred to the God of Paley. The God of Leibniz was not a viable alternative for the readers of the Origin, since the Leibnizian tradition seems not to have been effectively transmitted and continued except on the Continent. But Paley's God seemed to be a "personal" God, and his design-theology was less sophisticated and difficult than Kant's peculiar view of creatures in relation to God. Design-theology received a new expression from Paley's eloquent pen, free of a complex philosophical stance. If the alternative were the "critical" Kant or Paley, the choice would be for Paley, and all detachment would be lost. Only Coleridge seems to have tried to work something out, in pre-Origin days, from the basis of his reading of Kant, ^{but} his writings made relatively little contribution to the formation of a generally shared and dispassionate "mind" on the possibility of relating God to nature. In any case, whatever the pattern of explanation preferred, and whatever the concept of God employed, the problem of physical evil remained. The question then would be, what view, if any, made it tolerable.

We may now leave this consideration of theodicy as it was discussed by Kant and turn to the discussion of the topic in the country of the Origin. We have paid some attention to Linnaeus, whose name was associated with the concept of the fixity of species; and to Hume, who together with Leibniz, had to a limited degree provoked Kant's concern with theodicy. The "philosophers" to whom attention will be given are Malthus, Erasmus Darwin, and Paley, who had each of them in their own way been stimulated by the work of Hume to comment on theology in relation to nature, and incidentally to make various observations pertinent to theodicy. Coleridge will be considered, since he both reacted to Hume and his "successors" as considered in this exposition, and attempted, however haphazardly, to pay serious attention to what had been said on the Continent, from Leibniz' day to his own. It is in connection with the study of Coleridge, therefore, that something will be said about the transmission of Kant's work to England, to lead up to the period immediately before, and including, the publication of the Origin.

Kant

- 1 H.-J. de Vleeschauer, "Les Antinomies Kantienues et la Clavis Universalis d'Arthur Collier", Mind, (1938), 303-20. P.309 and p.315-7 refer to the discussion of Bayle's article "Zeno" in Europe. Cf. Kant / N.K.S., Critique, p.80f, and p.446f. And H.-J. de Vleeschauer, The Development of Kantian Thought, trans. A.R.C. Duncan, London : Nelson, 1962, p.13, p.47, p.50. Cited as de Vleeschauer, Development. On "Pyrrho", cf. Popkin, Selections p.194f, Note B; Kant / N.K.S., Critique, p.8-9. Also, Sadik J. Al-Azm, The Origins of Kant's Arguments in the Antinomies, London : O.U.P., 1972, p.4-5, on Kant's view of "Epicurus"; Kant/N.K.S., Critique, p.422f. And D.A. Rees, "Kant, Bayle and Indifferentism", Philosophical Review, LXIII, (1954), 592-5; G. Tonelli, "Kant und die Antiken Skeptiker", in Studien zu Kants Philosophischer Entwicklung, Hildesheim : Olms, 1967, pp.93-124.
- 2 A.D. Lindsay, Kant, London : Benn, 1934, p.163; de Vleeschauer, Development, p.39-40. Cf. R. Grimsley, The Philosophy of Rousseau, London : O.U.P., 1973, p.70f.
- 3 I. Kant, Religion within the Limits of Reason Alone, trans, with introd. and notes by T.H. Greene and H.T. Hudson, New York : Harper, 1960, p.174, for example, on Bayle's text on toleration, Lk.xiv, 23. Cited as Kant, Religion.
- 4 G. Martin, Kant's Metaphysics and Theory of Science, trans. P.G. Lucas, Manchester : U.P., 1955, p.7. Cited as Martin, Kant.
- 5 de Vleeschauer, Development, p.14.
- 6 Ibid., p.9. Cf. R.K. Merton, "Puritanism, Pietism and Science", in C.A. Russell, ed., Science and Religious Belief: A Selection of Recent Historical Studies, London : U.P., 1973, p.27 and p.36f. Cited as Russell, Science.
- 7 Brooks, Voltaire, p.34.
- 8 Barber, Leibniz, p.98.
- 9 Ibid., p.123f, on "Christian Wolff and his followers".
- 10 de Vleeschauer, Development, p.10-11; cf. Al-Azm, op.cit., p.140f.
- 11 de Vleeschauer, Development, p.14.
- 12 Kant's first published work, "Thoughts about the true estimation of living forces" of 1747, is a discussion of some of Leibniz' work which had been published in 1686 and subsequently, in the first literary and scientific review published in Germany, the Acta Eruditorum, begun in Leipzig in 1682. Cf. G. Rabel, Kant, Oxford: Clarendon, 1963, p.3, and p.8. Cited as Rabel, Kant.
- 13 Leibniz, Theodicy, p.277-8. A letter of Leibniz' of 1714, referring to the Protagaea, also indicated his independence of "scriptural" principles. Leibniz, Selections ed. D.P. Wiener, New York : Scribner & Sons, 1966, p.199-200, and another letter of 1710, p.506. Cited as Wiener, Leibniz. Cf. J.T. Merz, A History of European Thought in the Nineteenth Century, New York : Dover, 1965, 11:1, 280 f.

- 14 Lovejoy, Chain, p.256. Cf. Bentley Glass, Forerunners, p.37-38. A.D. White, A History of the Warfare of Science with Theology, New York: Dover, 1960, I, 58, suggested that this view of Leibniz' was sufficiently well known for the Jesuits in Vienna in 1712 to defeat his attempt to found an Academy of Science there.
- 15 Bentley Glass, Forerunners, p.51f. Cf. Barber, Leibniz, p.158-9, and p.166-7.
- 16 I. Kant, The Only Possible Argument for the Existence of God, in Essays and Treatises on Moral, Political and Various Philosophical Subjects, from the German by the translator of the Principles of the Critical Philosophy, London: W. Richardson 1798, II, 270-1. Cited as Kant/Richardson, Essays and Kant, Only Possible Argument.
- 17 Wollheim, Hume, p.190.
- 18 Wiener, Leibniz p.184f and cf. another fragment, p.92 of 1671, in which the principle is mentioned in connection with the principle of sufficient reason. Also, Lovejoy, Chain, p.144f and p.256f.
- 19 Wiener, Leibniz p.188.
- 20 Ibid., p.187.
- 21 Rabel, Kant, p.9-10, and a full translation of the paper is available in I. Kant, Universal Natural History and Theory of the Heavens, trans. W. Hastie, introd. Milton K. Munitz, Ann Arbor: Michigan U.P., 1969, pp.3-11. For Kant's later views on cosmology in the first Critique cf. Milton K. Munitz, Space, Time and Creation, New York: Collier, 1957, pp.150-154. Kant's work is cited as Kant, Universal Natural History.
- 22 Rabel, Kant, p.11-12.
- 23 Kant, Universal Natural History, p.11. Cf. Barber, Leibniz, p.144-5.
- 24 Rabel, Kant, p.11, from "Does the earth grow old?" We may note his remark, p.12, "I have not dealt as decisively with the problem as the enterprising mind of a bold scientist would wish. I have examined it critically, as the character of the problem requires. I have tried to clarify the conception one may form of such slow changes."
- 25 W. Hastie, Kant's Cosmogony, Glasgow: Maclehose, 1900, p.lv. W Hastie was a Professor of Divinity. Cited as Hastie, Cosmogony.
- 26 E. Cassirer, Rousseau, Kant, Goethe, trans. J. Gutmann, P.O. Kirstellar, J.H. Randall, U.S.A.: Princeton U.P., 1963, p.71. Cited as Cassirer, Rousseau etc.
- 27 F.A. Paneth, "Thomas Wright and Immanuel Kant, Pioneers in Stellar Astronomy", Royal Institution of Great Britain, lecture of April 6th, 1951, pamphlet pp. 1-12.
- 28 Kant, Universal Natural History, p.xv, and cf. pp.169-180.

- 29 C.F. von Weizsäcker, The Relevance of Science, p.123-5, noting the importance of Kant's work for the development of astrophysics, and the comment, "I think he is right in thinking that he argues according to the Christian idea of creation."
- 30 Kant, Universal Natural History, p.11.
- 31 Kant, Only Possible Argument, p.237f.
- 32 Kant, Universal Natural History, p.18.
- 33 Ibid., p.17.
- 34 Ibid., p.18.
- 35 Ibid., p.19.
- 36 Ibid., p.20.
- 37 Ibid., p.23.
- 38 Ibid., p.29 N.B. the comment of the translator, on p.27, on Kant's use of another English work, making the point, perhaps, that it was not necessary to hold to the literal truth of the Mosaic cosmogony. Kant's remarks on p.53 and p.64 indicate that he would think that the newer understanding of the universe rendered a Mosaic cosmogony inadequate.
- 39 Ibid., p.135.
- 40 Ibid., p.136.
- 41 Ibid., p.139.
- 42 Ibid., p.140.
- 43 Ibid., p.141.
- 44 Ibid., p.143.
- 45 Ibid., p.145.
- 46 Ibid., p.143-4.
- 47 Ibid., p.145.
- 48 Ibid., p.147.
- 49 Ibid., p.148.
- 50 Ibid., p.149.
- 51 Ibid., p.150.
- 52 Ibid., p.151. On Pope and von Haller, quoted in Kant's chapter, cf. P. Hazard, European Thought in the Eighteenth Century, Harmondsworth: Pelican, 1965 p.338. Cited as Hazard, European Thought. And on von Haller, Stafleu, Linnaeus, p.245f. Cf. Lovejoy, Chain, p.193-4, and pp.265-268, on the Universal Natural History as a "temporalized version of the principle of plenitude."

- 53 Ibid., p.155.
- 54 Ibid., p.41.
- 55 Ibid., p.151.
- 56 Ibid., p.151-2.
- 57 Ibid., p.154.
- 58 Ibid., p.155.
- 59 Ibid., p.156. Hastie, Cosmogony, p.xcvii-iii: "So Kant reaches his sublime contemplation 'of the Creation in the whole extent of its Infinitude in space as well as in Time,' and exhibits it, in his seventh chapter, with a loftiness of conception and an imaginative grasp that 'takes in all Nature with an easy span,' and is not surpassed in all literature."
- 60 Kant, Universal Natural History, p.165.
- 61 Ibid., p.166.
- 62 Ibid., p.167. Cf. Kant's self-criticism of the appeal to the deity in connection with the "chain" in Kant / N.K.S. Critique, p.426.
- 63 Translated in F.E. England, Kant's Conception of God, New York : Humanities Press, 1968. Cited as England, Kant.
- 64 Ibid., p.187, p.228f.
- 65 Ibid., p.247, p.251.
- 66 Martin, Kant, p.73.
- 67 England, Kant, p.230f.
- 68 Ibid., p.235f, especially p.237. On p.250, Kant rejects Manichaeism in a sentence.
- 69 Ibid., p.137-8, referring to p.236 of his translation.
- 70 Ibid., p.236.
- 71 Hazard, European Thought, p.340.
- 72 Brooks, Voltaire, p.12.
- 73 Barber, Leibniz, p.111, discusses the operation of the divine choice in the Essay on Man, but also suggest that Pope's approach whilst a posteriori, seems to view evil as "illusion".
- 74 Kant/Richardson, Essays, II, 93f. Cited as Kant, Earthquake. Cf. Kendrick, Lisbon, p.131f.

- 75 Kant, Earthquake, p.93.
- 76 Ibid., p.96.
- 77 Ibid., p.153.
- 78 Ibid., p.134.
- 79 Ibid., p.139.
- 80 Ibid., p.140.
- 81 Ibid., p.141. Cf. p.151 of vol. 11 of the Kant/Richardson Essays, from the 1762 work, The False Subtlety of the Four Syllogistic Figures.
- 82 Rabel, Kant, p.40-42. Voltaire's Candide was published in 1758, and Barber, Leibniz p.231f comments on the significance of the setting of the work in Germany.
- 83 Rabel, Kant, p.42.
- 84 Kant/Richardson, Essays, 11, p.218f. There is a brief summary of the work in I. Kant, Critique of Practical Reason and other Works on the Theory of Ethics, trans. T.K. Abbott, London: Longmans, 1967, p.xxviif; and a discussion in L. Goldmann, Immanuel Kant, trans. R. Black, London: N.L.B., 1971, pp.73-84.
- 85 Kant, Only Possible Argument, p.222-223.
- 86 N.K. Smith, A Commentary to Kant's Critique of Pure Reason, 2nd ed., London : Macmillan, 1962, p.487, noted that the centre of Kant's problem when thinking of the "Transcendental Ideal" was seen to be the relationship of things to totality. Kant was wary of a doctrine of pantheism, or of misinterpretation of immanence such as to jeopardise what he understood to be a proper understanding of "creation".
- 87 Kant, Only Possible Proof, p.257, in a passage important for Coleridge. Cf. note 267 of the chapter on Coleridge.
- 88 Kant, Only possible Proof, p.261.
- 89 Ibid., p.318. Cf. Voltaire, Philosophical Dictionary, trans. and ed. T. Besterman, Harmondsworth: Penguin, 1971, pp.205-7 on "End, Final Causes".
- 90 Kant, Only Possible Argument, p.276-7.
- 91 S. Hampshire, Spinoza, Harmondsworth: Penguin, 1953, pp.42-48.
- 92 Kant, Only Possible Argument, p.282-3.
- 93 Ibid., p.285.
- 94 Ibid., p.308f.

- 95 Ibid., p.295.
- 96 Ibid., note on p.293. Cf. Note 264 of the chapter on Coleridge.
- 97 Ibid., p.301-2, and p.314f.
- 98 Ibid., p.304.
- 99 Ibid., p.319.
- 100 Ibid., p.320.
- 101 Ibid., p.349. Cf. the essay of 1764, Enquiry Concerning the Clarity of the Principles of Natural Theology and Ethics, in I. Kant, Selected Pre-Critical Writings, trans. and introd., G.B. Kerford and D.E. Walford, Manchester: U.P., 1968, p.30, on God's being "present to all things in all places where things are." And cf. the essay of 1768, Concerning the Ultimate Foundation of the Differentiation of regions in space, p.37. Cited as Kant, Pre-Critical Writings, Martin, Kant, p.15 wrote on Leibniz' understanding of space as phaenomena dei, a representation of God's thinking, and Kant's problem with this. Cf. Kant/N.K.S., Critique, p.71.
- 102 Kant/N.K.S., Critique, p.22; and some consequences for theology, pp.601-603. Cf. P.F. Strawson, The Bounds of Sense, London : Methuen, 1966, pp.207-235; D.P. Dryer, Kant's Solution for Verification in Metaphysics, London : Allen & Unwin, 1966, pp.486-496.
- 103 Ibid., p.646, p.650, p.666. Then on "Ideas", p.318-319, p.323f, p.550-551.
- 104 Rabel, Kant, p.46-50. Cf. Kant, Religion, p.18, footnote.
- 105 Cassirer, Enlightenment, p.149f.
- 106 Rabel, Kant, p.47.
- 107 Ibid., p.49.
- 108 Bentley Glass, Forerunners, p.59.
- 109 A.O. Lovejoy, "Kant and Evolution", pp.173-207, of Bentley Glass, Forerunners. Cited as Lovejoy, "Kant".
- 110 Rabel, Kant, pp.68-71.
- 111 Ibid., p.69-70.
- 112 Cassirer, Rousseau, etc., p.25.
- 113 Lovejoy, "Kant", p.200.
- 114 Rabel, Kant, p.338f.
- 115 Ibid., p.339.

- 116 Ibid., p.338. Cf. F.P. van de Pitte, "Kant as Philosophical Anthropologist", p.515 of L.W. Beck, ed., Proceedings of the Third International Kant Congress, Dordrecht : Reidel, 1972.
- 117 Lovejoy, "Kant", p.205.
- 118 Ibid., p.202f.
- 119 I. Kant, The Contest of Faculties. A Renewed Attempt to Answer the Question: 'Is the Human Race Continually Improving?', in H. Reiss, ed., Kant's Political Writings, trans. H.B. Nisbet, London: C.U.P., 1970, p.185. Cited as Kant/Reiss, Political Writings.
- 120 Rabel, Kant, p.71.
- 121 Ibid., p.339.
- 122 Ibid., p.71.
- 123 Ibid., p.95. L.W. Beck, German Philosophy p.390, drew attention to the importance of the points being made in the lecture for Herder.
- 124 Lovejoy, "Kant", p.178.
- 125 Rabel, Kant, pp.98-100.
- 126 Ibid., p.98. Cf. Kant/N.K.S. Critique p.540.
- 127 Ibid., p.100.
- 128 Ibid., p.99. Cf. J.D. McFarland, Kant's Concept of Teleology, Edinburgh U.P., 1970, p.57f, and note 243 of this section.
- 129 Rabel, Kant, pp.143-146; and a complete translation is available I. Kant, On History, ed. L.W. Beck, trans. L.W. Beck, R.E. Anchor, E.L. Packenheim, U.S.A.: Bobbs-Merrill, 1963, pp.27-53. Cited as Kant, On History. A translation of Herder's book into English was made by T. Churchill, as Outlines of a Philosophy of the History of Man, London: J. Johnson, 1800. In ch.V of Book XV, p.462f we find: "A wise Goodness disposes the Fate of Mankind, therefore there is no nobler Merit, no purer and more durable Happiness, than to cooperate in its Designs." And writing of a right understanding of Providence, p.463, he urged that Providence was not to be employed "as a hobgoblin in the order of things, as the agent of his narrow designs, as the ally of his pitiful follies; so that the whole would remain eternally without a master! The God, whom I seek in history, must be the same as in nature; for man is but a small part of the whole; and his history, like that of the grub, is intimately interwoven with that of the web he inhabits. In it, therefore, natural laws must prevail, that are inherent in the essence of things: and with which the deity is so far from being able to dispense, that he reveals himself in his supreme power, with invariable wisdom, goodness, and beauty, even in those which himself has founded. Everything, that can take place upon Earth, must take place upon it, provided it happens according to rules,

that carry their perfection within themselves." And on p.466, "The laws that sustained the mundane system, and formed each crystal, each worm, each flake of snow, formed and sustained also the human species: it made its own nature the basis of its continuance, and progressive action, as long as men shall exist. All the works of God have their stability in themselves, and in their beautiful consistency: for they all repose, within their determinate limits, on the equilibrium of contending powers, by their intrinsic energy, which reduces them to order. Guided by this clue, I wander through the labyrinth of history, and everywhere perceive divine harmonious order: for what can anywhere occur, does occur, what can operate, operates. But reason and justice alone endure: madness and folly destroy the Earth and themselves." And, finally, on p.467, "there is no nobler use of history than this: it unfolds to us as it were the counsels of Fate, and teaches us, insignificant as we are, to act according to God's eternal laws. By teaching us the faults and consequences of every species of irrationality, it assigns us our short and tranquil scene on that great theatre, where Reason and Goodness, contending indeed with wild powers, still, from their nature, create order, and hold on in the path of victory."

For Herder's place in the history of German thought; see for example, C. Sutton, The German Tradition in Philosophy, London: Weidenfeld & Nicolson, 1974, p.38f. A.O. Lovejoy, Essays in the History of Ideas, Baltimore: Johns Hopkins, 1948, pp.166-183, "Herder and the Enlightenment Philosophy of History."

- 130 Rabel, Kant, p.150-152.
- 131 Beck, German Philosophy, p.389; and for his discussion of "Herder's spinozism", pp.385-392. Cf. Cassirer, Enlightenment, pp.230-233, and A.O. Lovejoy, "Herder: Progressionism without Transformism", pp.207-222 in Bentley Glass, Forerunners, especially p.219f on Herder's criticism of the views of Monboddo. Cf. the notes on p.28-9 of Kant's review, in On History, which show that Kant was wrong to impute to Herder "evolutionism" to which he was not, in fact, committed. On Herder's interest in Moscati's thesis, cf. p.31f.
- 132 E. Benz, Evolution and Christian Hope: Man's Concept of the Future from the Early Fathers to Teilhard de Chardin, trans. H.G. Frank, London: Gollancz, 1967, p.64.
- 133 Kant/Reiss, Political Writings, Contest of Faculties, p.184.
- 134 Kant, On History, p.36.
- 135 Lovejoy, "Kant", p.190, on Kant's here having "repudiated evolutionism with the tremulous emotion of a child frightened by a hobgoblin".
- 136 Kant, On History, p.37.
- 137 Rabel, Kant, p.151.
- 138 Lovejoy, "Kant", p.185.
- 139 Rabel, Kant, p.151.

- 140 Ibid., pp. 184-189.
- 141 Ibid., p.187. And for the way in which Linnaeus' views changed, cf. Stafleu, Linnaeus, p.134f.
- 142 Ibid., p.188.
- 143 Kant, Pre-Critical Writings, pp. 45-93.
- 144 Ibid., p.78-79, and p.83, and note 101 of this section. Martin, Kant, p.61; cf. Wiener, Leibniz p.289-90, and p.497f. Cf. H.E. Allison, trans. and ed., The Kant-Eberhard Controversy, Baltimore : John Hopkins, 1973, p.94. Cited as Allison, Kant-Eberhard.
- 145 Martin, Kant, p.6-7. And cf. note 59 of this section on Kant. Also, D.M. MacKinnon, "Coleridge and Kant", in Coleridge's Variety ed. J. Beer, London: Macmillan, 1974, pp.193-196 has a helpful exposition of the Dissertation. MacKinnon wrote, p.196, on this particular point: "No one reading the Dissertation, after submitting to the discipline of the first Kritik, finds it easy to enter in to the earlier work's peculiar fusion of rarefied quasi-logical argument with eloquent aspiration. Yet a close study of the text of the Kritik shows the extent to which Kant remained haunted by the dream of the sort of transformation of human knowledge in which, set free from the conditions through which alone he then supposed it possible, men might enjoy not simply comprehensive synoptic vision but the sort of insight which would render perspicuous to their understanding their very experience itself. One might say that he saw human beings beset by a craving to 'jump out of their cognitive skins'."
- 146 Cf. note 43f of this section on Kant.
- 147 Kant, Pre-Critical Writings, p.90-91. On God, cf. p.60, and p.76-7.
- 148 F. Copleston, A History of Philosophy, VI : II, Kant, New York : Image, 1964, p.7f.
- 149 A new edition was produced in 1787, with additions made in response to demands for clarification, a new preface to cope with the charge of scepticism, and whole new sections.
- 150 Kant/N.K.S., Critique, p.538.
- 151 Ibid., p.541.
- 152 Ibid., p.543-4; and Stafleu, Linnaeus, p.28, on Linnaeus' aphorism, "nature makes no jumps" (crossed out in Linnaeus' own copy of the Philosophia botanica).
- 153 Ibid., p.548. Cf. A.C. Ewing, A Shorter Commentary on Kant's Critique of Pure Reason, London : Methuen, 1938, p.258: "Kant, though he lived before the scientific establishment of the doctrine of evolution, was very interested in the notion of evolution as a possibility, and if he had been a contemporary of Darwin he would probably have pointed to evolution as a case where a regulative idea, that of continuity of species, suggested and encouraged the search for partial realisations of it even against the apparent empirical evidence, i.e. although extant species were quite distinct, and so led to the eventual finding

of new empirical evidence which justified the search, e.g. that of fossils." It is undoubtedly fair to say that Kant was "interested" in the notion, but he thought he had good reasons not to support it. What Ewing is right in indicating is the way in which the old idea of the "continuity" of species was transposed into the notion of evolution.

- 154 Kant/N.K.S., Critique, p. 548.
- 155 Ibid., p.379, "no organ, no faculty, no impulse, indeed nothing whatsoever is either superfluous or disproportioned to its use"; and cf. notes 234-5 of this section, and Wellheim, Hume, p.189.
- 156 Wiener, Leibniz, p.449f; cf. Stafleu, Linnaeus, p.25f.
- 157 For the influence of Leibniz on Lessing for one, cf. H. Chadwick, Lessing's Theological Writings, Palo Alto : Stanford U.P., 1951, p.11.
- 158 Cf. the "Appendix to the transcendental Dialectic", p.532f of Kant/N.K.S., Critique; and Stafleu, Linnaeus, p.68.
- 159 E. Cassirer, The Problem of Knowledge : Philosophy, Science and History since Hegel, trans. W.H. Woglom and C.W. Hendel, New Haven: Yale U.P., 1969, p.133. Cited as Cassirer, Problem of Knowledge.
- 160 Allison, Kant-Eberhard, p.160.
- 161 Kant/N.K.S., Critique, p.282.
- 162 Ibid., p.667, and p.313. Beck, German Philosophy^{p.451,} pointed out that it was in this period of his life that Kant was seriously studying Plato. Cf. Kant, Pre-Critical Writings, p.60, p.83, of the Inaugural Dissertation, and p.113 from a letter.
- 163 Kant/N.K.S., Critique, p.486.
- 164 Ibid., p.313.
- 165 Ibid., p.596. Cf. note 234 of this section.
- 166 Ibid., p.284.
- 167 Rabel, Kant., p.70-1.
- 168 N.K. Smith, Commentary, p.xxxii-xxxiii. Cf. R.P. Wolff, "Kant's Debt to Hume via Beattie", Journal of the History of Ideas, XXI, (1960), 117-123.
- 169 Kant/N.K.S., Critique, p.218f.
- 170 Ibid., p.606-7.
- 171 Ibid., p.607.
- 172 Ibid., p.611.

- 173 J.G. Hamann, Werke, Wien: Verlag Herder, 1961, III, 245-274. Cf. W.M. Alexander, J.G. Hamann: Philosophy and Faith, The Hague : Nijhoff, 1966, p.100, on Hamann's translation of the Dialogues, and his having originally planned to append his own critique of Hume to it - a project rendered redundant by Kant. Clearly, Hamann was taking Hume seriously long before other Germans seem to have been aware of him. On p.129-130, Alexander wrote of Hamann's reaction to Part II of the Dialogues : "For Hamann Hume has admirably illustrated what occurs when faith is abstracted from life, and held only in thought."
- 174 N.K. Smith, Commentary, p.540.
- 175 N.K. Smith, Dialogues, p.30. Cf. Kant/N.K.S., Critique, p.597.
- 176 Kant/N.K.S., Critique, p.518.
- 177 D. MacKinnon, "Kant's Agnosticism", Blackfriars, XXVIII, No. 327, (1947), 256-262, p. 260.
- 178 I. Kant, Prolegomena to Any Future Metaphysics that will be able to present itself as a Science, trans. P.G. Lucas, Manchester : U.P., 1966. Cited as Kant, Prolegomena.
- 179 Ibid., p.6-7, p.9, p.12.
- 180 Ibid., p.116f.
- 181 Ibid., p.116.
- 182 Ibid., p.123.
- 183 Ibid., p.124. Cf. I. Kant, The Critique of Judgment, trans. J.C. Meredith, Oxford : Clarendon, 1969, p.223, from the "Dialectic of Aesthetic Judgment", and p.132f, "the type of assurance in a teleological proof of the existence of God". Cited as Kant, Judgment. Cf. Martin, Kant p.169-70, on Kant's development of the scholastic tradition.
- 184 Kant Prolegomena, p.129.
- 185 Kant/N.K.S., Critique, p.596.
- 186 Ibid., p.597.
- 187 Ibid., p.646.
- 188 Ibid., p.650.
- 189 Ibid., p.648.
- 190 Ibid., p.513. Cf. note 101 of this section.
- 191 Ibid., p.566.
- 192 Ibid., p.318.

- 193 S. Korner, Kant, Hammondsworth: Penguin, 1955, p.122f. Cited as Korner, Kant, and Kant/N.K.S. Critique, p.550.
- 194 Kant/N.K.S., Critique, p.554.
- 195 Ibid., p.566.
- 196 Ibid., p.490. Cf. A Farrer, Finite and Infinite, London: A. and C. Black, 1964, p.40: "The notion of God as Ens Realissimum if that means a pool of all possible predicates somehow synthetised into one being is the most abjectly vulgar of theological ideas. We do not know how these predicates are contained in the mode of perfection which is somehow their archetype, and to enumerate them is to give an inventory of the world from which we have drawn them, not of the God to whom we knew not how we should assign them. We must begin the other way about, and having determined as best we may the nature of the divine activity, assign it exempli gratia such a detail as our imagination can integrate with it."
- 197 Kant/N.K.S., Critique, p.492.
- 198 Ibid., p.492-3.
- 199 Ibid., p.517.
- 200 Ibid., p.526.
- 201 Ibid., p.531.
- 202 Ibid., p.533-4.
- 203 Ibid., p.551.
- 204 Ibid., p.555.
- 205 Kant/Richardson Essays, I, 317-338. Cited as Kant, Conjectural History.
- 206 Lovejoy, "Kant", p.190f. Although Lovejoy, p.174-5 knew Cassirer's work, Rousseau etc. and criticised him for misunderstanding a point Kant makes in the Critique of Judgment he did not notice that Cassirer could have helped him in turn to avoid his own mistaken assessment of the essay under discussion, - unless he thought Cassirer mistaken here too. Cassirer wrote, p.25, "Kant framed no hypothesis concerning the original state of mankind. If he once ventures a step in this direction, in the essay on the Conjectural Beginning of Human History (1786), he declared emphatically that he was proposing no strict scientific theory but 'a mere extension of the imagination accompanied by reason'."
- 207 Kant, Conjectural History, p.334.
- 208 Ibid., p.325-6.
- 209 Ibid., p.336-7.
- 210 Cf. note 84 of this section. Cited as Kant, Practical Reason.

- 211 Ibid., p.149f.
- 212 I. Murdoch, The Sovereignty of Good, London: Routledge & Kegan Paul, 1970, p.81. Cited as I. Murdoch, Sovereignty.
- 213 Kant, Practical Reason, p.151-2.
- 214 Ibid., p.152.
- 215 Ibid., p.151, and cf. p.154.
- 216 Ibid., p.177.
- 217 I. Murdoch, Sovereignty, p.81. Cf. Kant's Fundamental Principles of the Metaphysics of Morals, of 1785, in Abbott, op.cit., notes p.17-18, p.28, p.44.
- 218 Kant, Practical Reason, p.221.
- 219 Ibid., p.222. Cf. Martin, Kant, p.163 and de Vleeschauer, Development, p.17 on the difference between his position in the Practical Reason and the Opus Postumum. Cf. Kant/N.K.S. Critique, p.641f.
- 220 Kant, Practical Reason, p.228. In a note on the same page Kant maintains that God's attributes of being "holy law giver (and creator), the good governor (and preserver), and the just judge, ... include everything by which God is the object of religion".
- 221 Ibid., p.236.
- 222 Ibid., p.246.
- 223 Ibid., p.229.
- 224 Ibid., p.260. Cf. H.W. Cassirer, A Commentary on Kant's Critique of Judgment, London: Methuen, 1938, p.92-3.
- 225 I. Murdoch, Sovereignty, p.83. Cf. the comments of J. Pieper, Death and Immortality, London: Burns & Oates, 1969, p.110.
- 226 Allen W. Wood, Kant's Moral Religion, Ithaca: Cornell U.P., 1970, p.155f. Cf. W.H. Walsh, "Kant's Moral Theology", Proceedings of the British Academy, XLIX, (1963), 263-289.
- 227 Kant, Judgment, p.121. All references are to the "Critique of Teleological Judgment" unless otherwise stated.
- 228 Kant/N.K.S., Critique, p.649.
- 229 Ibid., p.568.
- 230 Ibid., p.567.
- 231 Ibid., p.563.
- 232 K rner, Kant, p.207. Cf. K. Jaspers, The Great Philosophers, trans. R. Manheim, ed. H. Arendt, London: Hart-Davis, 1962, p.289.

- 233 Kant, Judgment, p.4.
- 234 The "Introduction" to the whole work as printed in Meredith's edition, p.21. Cf. also, p.28, from the "Critique of Teleological Judgment": "The principle of reason is one which it is competent for reason to use as a merely subjective principle, that is as a maxim: everything in the world is good for something or other; nothing in it is in vain; we are entitled, nay incited, by the example that nature affords us in its organic products, to expect nothing from it and its laws but what is final when things are viewed as a whole." J. Kemp, The Philosophy of Kant, London : O.U.P., 1968, p.113, points out that the maxim that nature does nothing in vain is more carefully re-stated by Kant, Judgment, p.24-5 as "an organised natural product is one in which every part is reciprocally both end and means." Kant's comment on this definition is: "In such a product nothing is in vain, without an end, or to be ascribed to a blind mechanism of nature." Kemp provides an extensive analysis of the first "Introduction" to the whole work, p.97f of his book. That introduction was the one not originally published by Kant because of its length. Cf. I. Kant, First Introduction to the Critique of Judgment, trans. J. Haden, U.S.A. : Bobbs-Merrill, 1965. p.40 of that latter work of Kant's included his comment on what could be said on the crystalline lens in the eye.
- 235 The "Introduction" in Meredith, p.28.
- 236 Ibid., the "Introduction" to the "Critique of Teleological Judgment", p.3.
- 237 Ibid., p.4-5.
- 238 Ibid., p.16, from the "Critique of Teleological Judgment".
- 239 Ibid., p.22. Cf. p.18-19.
- 240 Ibid., p.29 and p.85.
- 241 Ibid., p.30.
- 242 Ibid., p.153.
- 243 Ibid., p.54; cf. p.27. Cf. Kemp, The Philosophy of Kant, p.115-116 on the fundamental difference, in Kant's view, between the physical sciences being due to a fundamental and permanent feature of the human intellect.
- 244 Ibid., p.63.
- 245 Ibid., p.63. Cf. D.M. MacKinnon, The Problem of Metaphysics, London: C.U.P., 1974, p.7-8, on Kant at this point, who, he says, is "in no sense arguing for or against the existence of God; rather, he is helping his readers to attain a firmer purchase-hold on the limits of their characteristically intellectual activity. If God exists, then he knows what he himself creates, and therefore what he knows is immediately transparent to him. In the Critique of Judgment, what Kant is chiefly concerned to bring out is that God (again if he exists) does not have to argue inductively, to carry out experiments, to revise conceptions in the light of further observation; whereas we need to do all these things. Yet Kant is also making, in this passage, the much

more general point that our understanding does not create its own objects; this we come to grasp when we contrast our understanding with an understanding that does create its own objects." Cited as MacKinnon, Metaphysics.

- 246 Kant, Judgment, p.66.
- 247 Ibid., p.67.
- 248 Lovejoy, "Kant", p.100.
- 249 Kant, Judgment, p.79, note.
- 250 Lovejoy, "Kant", p.199, and cf. note 256 of this section.
- 251 Kant, Judgment, p.78.
- 252 Ibid., p.83.
- 253 Ibid., p.84.
- 254 Cf. p.67, and note 247 of this section.
- 255 Ibid., p.85.
- 256 Lovejoy, "Kant", p.199.
- 257 Ibid., p.175. Cf. note 152 of this section.
- 258 Rabel, Kant, p.279.
- 259 E. Cassirer, The Question of Jean-Jacques Rousseau, trans. Peter Gay, New York: Columbia U.P., 1954, p.35.
- 260 Cassirer, Problem of Knowledge, p.127.
- 261 Kant, Judgment, p.88. Cf. Kant, Practical Reason, p.229.
- 262 Kant, Judgment, p.89.
- 263 Ibid., p.90.
- 264 Ibid., p.92-3. Cf. p.97.
- 265 Ibid., p.98.
- 266 Kant, Practical Reason, p.222, p.228.
- 267 Kant, Judgment, p.111.
- 268 Ibid., p.121. Cf. note 188 of this section.
- 269 Ibid., p.129.
- 270 Ibid., p.155. Cf. MacKinnon, Metaphysics pp.64-5.
- 271 Kant, Judgment, p.144-5.

- 272 Ibid., p.159, and cf. p.113-114 of the "Critique of Aesthetic Judgment".
- 273 de Vleeschauer, Development, p.140f.
- 274 Ibid., p.151f.
- 275 Ibid., p.163, and cf. Wiener, Leibniz, 354, and N. Rescher, Leibniz, p.157.
- 276 Martin, Kant, p.161.
- 277 de Vleeschauer, Development, p.145.
- 278 Allison, Kant-Eberhard, p.160. Cf. Kant/N.K.S., Critique, p.310, p.654.
- 279 de Vleeschauer, Development, p.149.
- 280 Allison, Kant-Eberhard, p.159-60.
- 281 Martin, Kant, p.79-80.
- 282 de Vleeschauer, Development, p.151.
- 283 I. Kant, What is Enlightenment? in LW. Beck, Kant's Critique of Practical Reason and other Writings in Moral Philosophy, Chicago:U. P., 1949, pp.286-292. Cf. Barth, Protestant Theology, p.46f.
- 284 I. Kant, What is Orientation in Thinking? in Beck, op.cit., pp.293-305.
- 285 Kant, Religion, p.xxxiif.
- 286 Lindsay, Kant, p.10f.
- 287 Kant, Religion, p.7, p.124, p.147. The discussion of censorship continued in The Metaphysics of Morals of 1797, "The Theory of Right" p.150, in Kant/Reiss, Political Writings. Cf. note 133 of this section.
- 288 Cf. note 3 of this section.
- 289 Kant, Religion: Book III, "The Victory of the Good over the Evil Principle and the Founding of a Kingdom of God on earth"; Book IV, "Concerning Service and Pseudo-Service under the Sovereignty of the Good Principle, or, concerning Religion and Clericalism."
- 290 Ibid., p.10.
- 291 Ibid., p.99, a note on "Manichaeans", and p.131 on Zoroaster. Cf. N.K. Smith, Commentary, p.609f on Kant's writing of his Opus Postumum material as Nietzsche was beginning Zarathustra, p.640. Cf. in the Religion also, p.39, 50, 52, 73, 77-8, and p.cxxv, p.cxxix of the "Introduction", and Farrer, Love Almighty, on "Adam and Lucifer", p.132f.

- 292 Kant, Religion, for example, p.22, p.27, p.30, p.51.
- 293 Ibid., the note on p.119.
- 294 Ibid., p.5.
- 295 Kant/Richardson, Essays, II, 159-188. A modern translation is now available in M. Despland, Kant on History and Religion, Montreal : McGill-Queen's U.P. 1973, pp.283-297.
- 296 Kant/Richardson Essays, II, 172-3. Cf. MacKinnon, Metaphysics, p.125.
- 297 Kant/Richardson Essays, II, 174-5.
- 298 Ibid., p.177-8.
- 299 Ibid., p.178. Cf. Kant's note on p.181-2.
- 300 A. Farrer, "A Starting-Point for the Philosophical Examination of Theological Belief", in B. Mitchell, ed., Faith and Logic, London: Allen & Unwin, 1958, p.24-25, for a criticism of Kant, and Farrer's comments on "providence" throughout his work Faith and Speculation London : A. & C. Black, 1967.
- 301 Collins, God, p.197.
- 302 Kant, Religion, p.98. Cf. V. Preller, Divine Science and the Science of God : A Reformulation of Thomas Aquinas, Princeton: U.P., 1967, p.177-8, and MacKinnon, Metaphysics, p.9.
- 303 Cassirer, The Question of Jean-Jacques Rousseau, p.82.
- 304 Cassirer, Rousseau etc., p.39f, and Enlightenment, p.153f.
- 305 Kant, Religion, p.113f.
- 306 Kant/Reiss, Political Writings, p.45.
- 307 Ibid., p.53. Cf. D. MacKinnon, Borderlands of Theology, London : Lutterworth, 1968, p.158: "In a way, one's verdict on philosophy of history as an enterprise will stand or fall with the value we attach to this kind of struggle to find a language in which to expound the mystery of evil", referring to Forsyth's The Justification of God. Also L. Krieger, "Kant and the Crisis of Natural Law", Journal of the History of Ideas, XXVI, (1965), 191-210, on Kant's essays on history of the 1780's; H. Arendt, Between Past and Future, Cleveland: Meridian, 1961, p.82f; E. Frank, Philosophical Understanding and Religious Truth, London : O.U.P., 1949, p.117.
- 308 Also in Kant/Reiss, Political Writings, On the Common Saying : This may be true in Theory, but it does not apply in Practice, of 1793, especially perhaps the section, "On the relationship of Theory to Practice in International Right", p.88 : "It is a sight fit for a god to watch a virtuous man grappling with adversity and evil temptations and yet managing to hold out against them." But the "spectator" will quickly tire if the "play" is to go on in the same way for ever. And p.91 where he asserts that men should look to Providence to create the circumstances in which man's hopes and

desires may be fulfilled.

- 309 Kant/Richardson, Essays, II, 422-444, and a modern translation in Kant, On History, pp.69-85.
- 310 Kant/Richardson, Essays, p.427f.
- 311 Ibid., p.431, note.
- 312 Ibid., p.439.
- 313 I. Kant, On Perpetual Peace, trans. M.C. Smith, New York : Macmillan, 1915, especially the "First Supplement : Concerning the Guarantee of Perpetual Peace."
- 314 Ibid., p.143, text and note.
- 315 Ibid., note 145.
- 316 Ibid., p.147. Cf. Kant, Judgment, p.15-16. Cf. note 238 of this section.
- 317 Kant, Perpetual Peace, p.151.
- 318 Ibid., p.182.

Section II

Malthus to Coleridge

A. Malthus

There were several late eighteenth-century attempts in England to cope with theodicy, and we may look at the ones which seem to be taking notice of Hume's "problems" in their very different ways, and then at what little Coleridge had to say about theodicy, since he knew not only of Hume's work, but something of Leibniz' and Kant's as well.

One of the attempts to cope with theodicy was that of Malthus, whose Essay on the Principle of Population, as it affects the Future Improvement of Society, with remarks on the Speculations of Mr. Godwin, M. Condorcet, and other writers,¹ appeared in 1798. It is true that this essay is only in part an attempt to construct an a posteriori theodicy, but Malthus does seem to be trying to comment both favourably and unfavourably on some of Hume's topics which had come up in his Dialogue, and is therefore worth looking at.

Malthus' work was published anonymously, because it was an attempt to criticise a facile optimism prevalent in his time about the perfectibility of human institutions, and because it offered a theodicy which some readers would not recognise as such. Malthus said in his introduction that the "view which he has given of human life has a melancholy hue; but he feels conscious, that he has drawn these dark

tints, from a conviction that they are really in the picture; and not from a jaundiced eye, or an inherent spleen of disposition."² He wanted to draw attention to the principal difficulty which lay in the way to the improvement of society. The flicker of the enlightenment in England, which he described as "the ardent and unshackled spirit of inquiry that prevails throughout the lettered, and even unlettered world" provided him with his opportunity to raise his problem:³

It is, undoubtedly, a most disheartening reflection, that the great obstacle in the way to any extraordinary improvement in society, is of a nature that we can never hope to overcome. The perpetual tendency in the race of man to increase beyond the means of subsistence, is one of the general laws of animated nature, which we can have no reason to expect will change. Yet, discouraging as the contemplation of this difficulty must be to those whose exertions are laudably directed to the improvement of the human species, it is evident, that no possible good can arise from any endeavours to slur it over, or keep it in the background. On the contrary, the most baleful mischiefs may be expected from the unmanly conduct of not daring to face truth, because it is unpleasing. Independently of what relates to this great obstacle, sufficient yet remains to be done for mankind, to animate us to the most unremitted exertion. But if we proceed without a thorough knowledge, and accurate comprehension of the nature, extent, and magnitude, of the difficulties we have to encounter, of if we unwisely direct our efforts towards an object, in which we cannot hope for success; we shall not only exhaust our strength in fruitless exertions, and remain at as great distance as ever from the summit of our wishes; but we shall be perpetually crushed by the recoil of this rock of Sisyphus.⁴

He maintained that his most important argument was not new, and that the principles on which it depended had been explained in part by Hume⁵ (whom he clearly admired for his clearness of perception) and more at large by Dr. Adam Smith and others. Mere supposition, "the probable realization of which cannot be inferred upon any just philosophical grounds"⁶ is put out of court. What he wanted to look at are those laws which could only be altered by "an immediate

act of power in that Being who first arranged the system of the universe; and for the advantage of his creatures, still executes, according to fixed laws, all its various operations."⁷ These laws he first indicated as follows:

Through the animal and vegetable kingdom, nature has scattered the seeds of life abroad with the most profuse and liberal hand. She has been comparatively sparing in the room, and the nourishment necessary to rear them. The germs of existence contained in this spot of earth, with ample food, and ample room to expand in, would fill millions of worlds in the course of a few thousand years. Necessity, that imperious all pervading law of nature, restrains them within the prescribed bounds. The race of plants, and the race of animals shrink under this great restrictive law. And the race of man cannot, by any efforts of reason, escape from it. Among plants and animals its effects are waste of seed, sickness, and premature death. Among mankind, misery and vice. The former, misery, is an absolutely necessary consequence of it. Vice is a highly probable consequence, and we therefore see it abundantly prevail, but it ought not, perhaps, to be called an absolutely necessary consequence.⁸

The importance of this argument for him was that he saw "no way by which man can escape from the weight of this law which pervades all animated nature."⁹ This is the foundation of his argument against the perfectibility of human society. And in another chapter he added that though the vices of man were sufficient in many circumstances to keep the population down, nature also has sickly seasons, epidemics, pestilence and plague to offer, and famine, "the last, the most dreadful resource of nature."¹⁰ The problem was an urgent one because "the period when the number of men surpass their means of subsistence has long since arrived."¹¹ Chapter viii,¹² in which this statement is made, and chapter ix,¹³ are the most central to the argument, for reasons which will be mentioned later.

In chapter ix, it is clear that what Malthus wants to do, given this context, is to distinguish between subjects with which no real

progress can be made from those where progress has been marked, certain and acknowledged.¹⁴ Systems were to be founded on facts and not facts bent to systems.¹⁵ It was for him important to stress that the

constancy of the laws of nature, and of effects and causes, is the foundation of all human knowledge; though far be it from me to say, that the same power which framed and executes the laws of nature may not change them all 'in a moment, in the twinkling of an eye'. Such a change may undoubtedly happen. All I mean to say is, that it is impossible to infer it from reasoning. If without any previous observable symptoms or indications of a change, we can infer that a change will take place, we may as well make any assertion whatever, and think it as unreasonable to be contradicted, in affirming that the moon will come into contact with the earth tomorrow, as in saying that the sun will rise at its usual time.¹⁶

Given that constancy it was for him absurd, because there was no reliable evidence for it, to suppose that "the limit of human life is undefined; because you cannot mark its precise term, and say so far exactly shall it go and no further; that therefore its extent may increase for ever, and be properly termed, indefinite or unlimited."¹⁷

There could not for example, be no limit whatsoever to the selective breeding of Leicestershire sheep. Were that breeding to continue for ever, the sheep will never have heads and legs of the size appropriate to a rat.¹⁸ "It cannot be true, therefore, that among animals, some of the offspring will possess the desirable qualities of the parents in a greater degree; or that animals are indefinitely perfectible."¹⁹

Another example could be taken from the selective breeding involved in the cultivation of a garden flower from a wild one.²⁰ There was a fundamental fallacy in the argument "which infers an unlimited progress, merely because some partial improvement has taken place," and because its limit could not be precisely ascertained.²¹

On the other hand it was not impossible to suppose that "by an attention to breed, a certain degree of improvement, similar to that among animals, might take place among men."²² However, he doubted whether intellect could be communicated, though he conceded that size, strength, beauty, complexion, and even longevity might be transmissible to a degree. What was necessary was to discriminate between a small improvement, the limit of which was undefined, and an improvement really unlimited. Malthus knew of no well-directed attempts to control the "breed" of a family, "except in the ancient family of the Bickerstaffs, who are said to have been very successful in whitening their skins, and increasing the height of their race by prudent marriages, particularly by that very judicious cross with Maud, the milk-maid, by which some capital defects in the constitutions of the family were corrected." Moreover an improvement in the human race as a whole would involve "condemning all the bad specimens to celibacy".²³

What is interesting is that in chapter xviii he showed that he was prepared to abandon the "Butlerian" view that the world is "a state of trial and school of virtue, preparatory to a superior state of happiness"²⁵ and offer another view, which displayed the world as "a mighty process for awakening matter into mind."²⁶ It is this view which offered a correction of Hume, and enabled him to start talking about God's goodness, in relation to the laws of nature which otherwise so appalled him. Hume had hit on a clue, that of mind arising from matter, but had not seen what it implied. Malthus' view appeared to him "to be more consistent with the various phenomena.

of nature which we observe around us, and more constant to our ideas of the power, goodness, and foreknowledge of the Deity,"²⁷ but he was still suspicious of any claim to a fully rational comprehension of things:

It cannot be considered as an unimproving exercise of the human mind to endeavour to 'Vindicate the ways of God to man', if we proceed with a proper distrust of our own understandings, and a just sense of our insufficiency to comprehend the reason of all that we see: if we hail every ray of light with gratitude; and when no light appears, think that the darkness is from within, and not from without; - and bow with humble deference to the supreme wisdom of him, whose 'thoughts are above our thoughts', 'as the heavens are high above the earth'.²⁸

The fundamental point to which he returned repeatedly was that we must reason from nature to God and not attempt to argue the other way round. So he embarks on another correction of Hume:

The moment we allow ourselves to ask why some things are not otherwise, instead of endeavouring to account for them, as they are, we shall never know where to stop; we shall be led into the grossest, and most childish absurdities: all progress in the knowledge of the ways of providence must necessarily be at an end; and the study will even cease to be an improving exercise of the human mind. Infinite power is so vast and incomprehensible an idea, that the mind of man must necessarily be bewildered in the contemplation of it. With the crude and puerile conceptions which we sometimes form of this attribute to Deity, we might imagine that God could call into being myriads, and myriads of existences; all free from pain and imperfection; all eminent in goodness and wisdom; all capable of the highest enjoyments; and unnumbered as the points throughout infinite space.²⁹

There was no need for these "vain and extravagant dreams of fancy".³⁰

What he saw was "a constant succession of sentient beings, rising apparently from so many specks of matter, going through a long and sometimes painful process in this world; but many of them attaining, ere the termination of it, such high qualities and powers, as seem to indicate their fitness for some superior state."³¹ We should not,

therefore, "exalt the power of God at the expense of his goodness," but rather conclude "that even to the Great Creator, Almighty as he is, a certain process may be necessary, a certain time, (or at least what appears to us as time) may be requisite, in order to form beings with those exalted qualities of mind which will fit them for his high purposes".³² We might suppose therefore, that "the various impressions and excitements which man receives through life, may be considered as the forming hand of his Creator, acting by general laws, and awakening his sluggish existence, by the animating touches of the Divinity, into a capacity of superior enjoyment. The original sin of man, is the torpor and corruption of the chaotic matter in which he may be said to be born."³³ This was the employment which is "surely worthy of the highest attributes of the Deity."³⁴ The probability that this was the right supposition is reinforced if we could thus account "even to our narrow understandings, for many of those roughnesses and inequalities in life, which querulous man too frequently makes the subject of his complaint against the God of nature."³⁵ So in attempting to deal with physical evil, he mentioned that pain and physical want were necessary to produce mind:

To furnish the most unremitted excitements, and to urge man to further the gracious designs of Providence by the full cultivation of the earth, it has been ordained, that population should increase much faster than food. This general law, (as it has appeared in the former parts of this essay) undoubtedly produces much partial evil; but a little reflection may, perhaps, satisfy us, that it produces a great overbalance of good.³⁶

Here Malthus returned to his theme of the constancy of general laws, and his denial of the interference of God in natural processes. "If

in the ordinary course of things, the finger of God were frequently visible; or to speak more correctly, if God were frequently to change his purpose, (for the finger of God is, indeed, visible in every blade of grass that we see) a general and fatal torpor of the human faculties would probably ensue."³⁷ To him it seemed in every way probable "that even the acknowledged difficulties occasioned by the law of population, tend rather to promote than impede the general purpose of Providence."³⁸

The extremes of excitement, or the lack of it, however, as of riches or poverty, might not be favourable to the growth of mind, "but it is contrary to the analogy of all nature, to expect that the whole of society can be a middle region."³⁹ In chapter xix⁴⁰ he explained his hopes for this "middle region" of society, as being the area in which intellectual improvement might be most expected. It was nature, in her infinite variety, which was the stimulus here.

The shades that are here and there blended in the picture, give spirit, life, and prominence to her exuberant beauties; and those roughnesses and inequalities, those inferior parts that support the superior, though they sometimes offend the fastidious microscopic eye of short-sighted man, contribute to the symmetry, grace, and fair proportion of the whole.⁴¹

Variety could exist without inferior parts, or apparent blemishes, and "nature is admirably adapted to further the high purpose of the creation and to produce the greatest possible quantity of good".⁴²

Thus the "darkness" that obscured metaphysical subjects was itself a further stimulus to knowledge, and 'revelation' might damp the wings of man's intellect.⁴³ Any actual infringement of the general

laws of nature, however, appeared "in the light of the immediate hand of God mixing new ingredients into the mighty mass, suited to the particular state of the process, and calculated to give rise to a new and powerful train of impressions, tending to purify, exalt, and improve the human mind."⁴⁴ Such a revelation of the divine will was attended with doubts and difficulties, but this was no argument against the divine origin of the scriptures which were suited to the improvement of human faculties, and the moral amelioration of mankind.⁴⁵

Malthus saw that built into his work was the assumption that it was impossible that evil should ever be removed from the world, since God needed evil in its physical aspect to form matter into mind. He maintained that the weight of evil, the necessity expressed in his "law" existed not to create despair but activity, and "the continual variations in the weight, and the distribution of this pressure keep alive a constant expectation of throwing it off."⁴⁶ Man's exertions in his circle of influence would enable him, most probably, to improve and exalt his own mind, and fulfil the will of his Creator.⁴⁷ This was Malthus' ground for maintaining that it was our duty to adopt whatever schemes of social improvement seemed to be appropriate despite the lack of confidence he evidently felt about their ultimate importance for anyone other than the particular individuals who might be involved.⁴⁸

Considering that this first essay was written without any attempt to present supporting "evidence" for Malthus' main thesis,⁴⁹ it may be

taken as a good example of the kind of thinking in relation to some theological topics of a reasonably well-educated curate of the day, who came from a home where his father knew Hume and Rousseau and Godwin,⁵⁰ who had a mind formed by the thinking of the past, and brought it to bear on a contemporary problem as he saw it. It was this combination of abilities which Paley saw as resulting in a piece of work complementary to his own, Natural Theology. The revised version of Malthus' Essay which he brought out in 1803 under his name, is a very different piece of work. It is this version, now called An Essay on the Principle of Population, or a View of its Past and Present Effects on Human Happiness, which made him important in the nineteenth century, not as a writer of theodicy, but as a demographer, economist and sociologist. It created for Malthus as many friends as enemies, (and the later approval of Mill), and had Malthus adopted as a prophet of the secularists.⁵¹ This second version was to run into many editions, and Malthus' "law" was to be described by the Lord Chief Justice as an "irrefragable truth" in 1887 during the hearing of the Bradlaugh-Besant case.⁵² In the short time between the writing of the two books Malthus had amassed a lot of material from a great variety of sources, including histories both ancient and modern, and accounts of voyages and expeditions. Material culled from Buffon could be put together with Hume's essay on "The Populousness of Ancient Nations" which he now used more extensively. Reference could also be made to Paley's writings on morality, and his natural theology which had recently come out⁵³ in which Malthus' own first essay was cited with approval. He now also revealed that he had indeed read Hume's

Dialogues, and that he had taken as one of his principles Hume's statement that "almost all the moral as well as natural evils of human life arise from idleness."⁵⁴ Although his work was different in character from the earlier version he wanted to make it clear that he did not absolutely repudiate what he had said there, but by drawing on the material he now found to be available, he wanted to give his thesis a more practical and permanent interest.⁵⁵ This accounts both for the material he had adopted from the older essay into the new one, and for what he had omitted from that older work, because that material did not suit the different plan of treating the subject which he had now adopted. Theodicy was no longer a manageable topic. The paragraph about Nature scattering the seed of life was kept,⁵⁷ and is to be found at the very beginning of the new work. It is also easy to find echoes of themes of his earlier work,⁵⁸ including his theological reflections,⁵⁹ none of which are important in this new version. In fact, were it not for having looked at the earlier material, one would easily dismiss them as expressions of conventional piety which could be of no importance to the writer. What this work reflects is an inability to relate his theology to his other knowledge, and yet a reluctance to discard that theology altogether, however incoherent it was. It may be significant that chapter xviii disappeared, despite the author's earlier conviction that it did represent what was happening in the natural order, and so, inevitably, did chapter xix. The one major section that was kept was chapters viii and ix of the first work, which now appears as one chapter,⁶⁰ "Of systems of Equality-Wallace-Condorcet", with some minor alterations of wording.

Both Darwin and Wallace are on record as maintaining that it was their reading of Malthus that provided them with their interpretation of what they were seeing and recording on their respective voyages and expeditions. What is not clear is whether it was the first or second version of Malthus' work that they read. However, given the stir created by the second version, and the fact that the essay of 1803 went through four more editions in Malthus' lifetime alone, it is fair to surmise that it is this one they read. Even this essay, however, was seen by a few to raise the old theological issues. Thomas Doubleday's work of 1842, The True Law of Population shown to be connected with the good of the People,⁶¹ stated in its "Preface" the author's "general conviction of the benevolence of the Deity, and the wonderful providence by which, under the agency of an unseen law, unrecognised and unthought of, the happiness of mankind is often regulated and achieved upon a scale of moral government, of which the human eye can only see portions, and which the human intellect can only apprehend in part."⁶² Like Paley, one postulate fundamental for his reasoning, was the goodness of God,⁶³ and on this basis he tackled Malthus' mistakes. And M.T. Sadler's two volume works of 1830 The Law of Population,⁶⁴ with a quotation from Pope on the title page, criticised Malthus precisely because his work "lowers the character of the Deity in that attribute, which, as Rousseau has well observed, is the most essential to him, his goodness, or otherwise impugns his wisdom..."⁶⁵ This writer preferred a picture of "the omnipotent Father, grasping in his almighty hand that golden chain, bright with benevolence and mercy, by which he sustains from the heights of eternity his

universal offspring." God had not left his offspring to be regulated by the inflictions of Malthus' "Manichean principle."⁶⁶ Sadler and Doubleday in effect inform us about one reason why Malthus dropped the themes of theodicy from the second version of his essay, though he was not careful enough to remove all reference to the Deity from it. A Deity responsible for Malthus' "law" and the theodicy to which it was related, was not, it seemed, a deity to be worshipped for his goodness.

Malthus

- 1 J.R. Malthus, Essay on the Principle of Population, as it affects the Future Improvement of Society, London: J. Johnson, 1798. Reprinted for the Royal Economic Society with notes by J. Bonar, London: Macmillan, 1926. Cited as Malthus, Essay.
- 2 Ibid., p. iv.
- 3 Ibid., p. 1.
- 4 Ibid., p. 347.
- 5 Ibid., p. 8. Cf. p. 57, and also his reference there to Hume's Essay, "On the Populousness of Ancient Nations", Hume, Essays, p. 381f.
- 6 Malthus, Essay, p. 10.
- 7 Ibid., p. 12.
- 8 Ibid., p. 14-15. Cf. Butler, Analogy, p. 93-4.
- 9 Malthus, Essay, p. 16.
- 10 Ibid., p. 139.
- 11 Ibid., p. 153.
- 12 Ibid., pp. 142-154.
- 13 Ibid., pp. 155-172.
- 14 Ibid., p. 162, note.
- 15 Ibid., p. 158-9.
- 16 Ibid., p. 159-60. Cf. pp. 239-40, 249.
- 17 Ibid., p. 163.
- 18 Ibid., p. 164-5.
- 19 Ibid., p. 165.
- 20 Ibid., pp. 165-7 and pp. 273-275.
- 21 Ibid., p. 169.

- 22 Ibid., p. 170.
- 23 Ibid., p. 171.
- 24 Ibid., pp. 348-371.
- 25 Ibid., p. 349. Cf. p. 353 "A state of trial seems to imply a previously formed existence, that does not agree with the appearance of man in infancy, and indicates something like suspicion and want of foreknowledge, inconsistent with those ideas which we wish to cherish of the Supreme Being."
- 26 Ibid., p. 348, part of the chapter summary.
- 27 Ibid., p. 349.
- 28 Ibid., p. 349-50.
- 29 Ibid., p. 350-1.
- 30 Ibid., p. 351.
- 31 Ibid., p. 351-2.
- 32 Ibid., p. 352. Cf. p. 375f.
- 33 Ibid., p. 353-4.
- 34 Ibid., p. 355.
- 35 Ibid., p. 356.
- 36 Ibid., p. 361-2. Cf. J. Bonar, Malthus and his Work, London: Macmillan, 1885, p. 39 on his use of Stüssmilch's statistics. Cited as Bonar, Malthus.
- 37 Malthus, Essay, p. 362.
- 38 Ibid., p. 366.
- 39 Ibid., p. 367.
- 40 Ibid., pp. 372-396.
- 41 Ibid., p. 377-8.
- 42 Ibid., p. 379.
- 43 Ibid., pp. 380-4.
- 44 Ibid., p. 392.
- 45 Ibid., p. 393-4.

- 46 Ibid., p.395.
- 47 Ibid., p.396.
- 48 Ibid., pp.389-91. It is consonant with his reasoning, he thinks, that "those beings which come out of the creative process of the world in lovely and beautiful forms, should be crowned with immortality, while those which come out misshapen, those whose minds are not suited to a purer and happier state of existence, should perish, and be condemned to mix again with their original clay."
- 49 Ibid., p. xiii-xiv of Bonar's "Notes", quoting Malthus' introduction to his second version, referring to his first essay: "It was written on the spur of the occasion, and from the few materials which were within my reach in a country situation."
- 50 J.R. Malthus, An Essay on the Principle of Population, or a View of its Past and Present Effects on Human Happiness, T.H. Hollingsworth, ed., London : Dent, 1973, p. ix of Hollingsworth's "Introduction". Cited as Hollingsworth, Essay.
- 51 Ibid., p. xxix-xxx.
- 52 C.R. Drysdale, The Life and Writings of Thomas R. Malthus, 2nd ed., London : G. Standring, 1892.
- 53 Malthus, Essay, p.213, quoting Paley as maintaining that morality is "the will of God, as collected from general expediency." Cf. Hollingsworth, Essay, p.166, p.171, p.252-3; and Bonar, Malthus, p.324.
- 54 Malthus, Essay, p.249. Cf. Wollheim, Hume, p.183.
- 55 Malthus, Essay, p. xiv of Bonar's "Notes". Cf. Bonar, Malthus, pp. 38-40.
- 56 Malthus, Essay, p.xvi of Bonar's "Notes".
- 57 Hollingsworth, Essay, p.6.
- 58 Ibid., p.59, p. 309.
- 59 Ibid., p.151, p. 168.
- 60 Ibid., pp. 1-10 (as ch. I) of Book III. The footnote of p.161 of the first version of the essay is put at the end of the new chapter.

- 61 T. Doubleday, The True Law of Population shown to be connected with the Good of the People, London: Simpkin, Marshall & Co., 1842.
- 62 Ibid., p. x.
- 63 Ibid., p. xi.
- 64 M.T. Sadler, The Law of Population, London: J. Murray, 1830.
- 65 Ibid., I, 4-5.
- 66 Ibid., p. 24-5.

B. Erasmus Darwin

Another "philosopher" who was influenced by both Linneaus and David Hume was Charles Darwin's grandfather, Erasmus. A certain amount of attention has been paid to his contribution to the development of the theory of evolution as expressed by Charles Darwin. As one writer, Desmond King-Hele,¹ remarked, Erasmus is generally credited, together with Lamarck and his grandson Charles, as being one of the three most influential contributors to the theory.² King-Hele also noted that Erasmus was far more aware of the religious and philosophical implications of evolution than was his grandson, and this assessment in particular needs looking at carefully. Erasmus was by profession neither philosopher, theologian nor naturalist, but a medical practitioner who was philosophically-minded. He was a member of the Lunar Society which included men such as Galton and Wedgwood, themselves members of families allied in marriage to his own, and he was a member of some of the Literary and Philosophical Societies being formed up and down the country in the 1770's and after. His inaugural address to the society he himself founded in Derby in 1784 included the following statement:

As we are fashioned and constituted by the niggard hand of Nature with such imperfect and contracted faculties, with so few and such imperfect senses; while the bodies which surround us are indued with infinite variety of properties; with attractions, repulsions, gravitations, exhalations, polarities, minuteness, irresistance, etc. which are not cognizable by our dull organs of sense, or not adapted to them; what are we to do? Shall we sit down contented with ignorance, and after we have procured our food, sleep away our time like the inhabitants of the woods and pastures? No, certainly! - since there is another way by which we may indirectly become acquainted with those properties of bodies which escape our senses; and that is by observing and registering their effects upon each other. This is the

tree of knowledge, whose fruit forbidden to the brute creation has been plucked by the daring hand of experimental philosophy ... I hope at some distant time, perhaps not very distant, by our own publications we may add something to the common-heap of knowledge; which I prophesy will never cease to accumulate so long as the human footstep is seen upon the earth.³

His particular contribution to the common heap of knowledge was in the first instance his Zoonomia; or, the Laws of Organic Life of 1794.⁴ Charles Darwin's short biographical essay on his grandfather,⁵ included the information that the Zoonomia had been in preparation for many years before its publication, and that Erasmus had thought of publishing it anonymously as early as 1775. And he wrote to Charles' father in 1792: "I am studying my 'Zoonomia', which I think I shall publish, in hopes of selling it, as I am now too old and hardened to feel a little abuse"⁶ The work was dedicated to virtually the only body in England which provided a scientific training and education - the College of Physicians - together with the Royal Philosophical Society and the two universities, and "to anyone else who studies the operation of the mind as a science or practises medicine as a profession." A poem dedicated to Erasmus by one Dewhurst Bilsbarrow of Trinity College, Cambridge, also formed part of the introductory matter.⁷ This poem concluded with the lines :

"Till, link by link with step aspiring trod,
You climb from NATURE to the throne of GOD,
- So saw the Patriarch with admiring eyes
From earth to heaven a golden ladder rise;
Involved in clouds the mystic scale ascends,
And brutes and angels crowd the distant ends."

The purpose of thus placing the poem was to allow Erasmus Darwin to give the first volume of the Zoonomia a superficially theological framework of reference. The last paragraphs related what he had⁸

said in the body of the work to what he was prepared to write about the "final cause" of all,

the motive, for the accomplishment of which the preceding chain of causes was put into action. The idea of a final cause, therefore, includes that of a rational mind, which employs means to effect its purpose ... This perpetual chain of causes and effects, whose first link is rivetted to the throne of GOD, divides itself into innumerable diverging branches, which, like the nerves arising from the brain, permeate the most minute and most remote extremities of the system, diffusing motion and sensation to the whole.

Modern discoveries in chemistry and geology he went on, served to illustrate God's power, and need not lead to atheism. He drew to a pious conclusion by the use of ^a composite quotation from the Psalms. On various occasions in the work he appeared to be trying, however superficially, to relate what he had to say about "nature" to God,⁹ as he did in his "preface", which indicated one of his most important themes. He there said that he wanted to unravel a theory of diseases by means of what he called a comparison of animal life, having previously classified it into orders, genera and species.

"The great CREATOR of all things has infinitely diversified the works of his hands, but has at the same time stamped a certain similitude on the features of nature, that demonstrates to us, that the whole is one family of one parent. On this similitude is grounded all rational analogy ..."¹⁰ He also remarked that this theory "appears to have been shadowed or allegorized in the curious account in sacred writ of the formation of Eve from a rib of Adam."¹¹

Erasmus not only used Linnaeus' Systema Naturae but claimed to

have the authority of Linnaeus on his side not for the notion of the fixity of species, but for the theory that so far as vegetables at least were concerned, very few were originally created and that the complex forms now known arose because of the "perpetual contest for light and air above ground, and for food and moisture beneath the soil ... from climate or other causes." Erasmus was prepared to apply the same kind of explanation to the "tribes of animals", and indeed to write that "as the earth and ocean were probably peopled with vegetable productions long before the existence of animals; and many families of these animals long before other families of them, shall we conjecture that one and the same kind of living filament is and has been the cause of all organic life?"¹² The strength of the case for regarding him as a precursor of Lamarck and Charles Darwin lies specially in one section of the work, where he illustrated his thesis,¹³ and the emphasis he there gave to certain points. He took some of his clues from what he saw happening to animals under domestication and selective breeding, as well as from the changes which he believed were "in part produced by their own exertions in consequence of their desires and aversions, of their pleasures and pains, or of irritations, or of associations; and many of these acquired forms or propensities are transmitted to their posterity." And there are three particular "objects of desire", which "have changed the forms of many animals by their exertions to gratify them" - namely lust, hunger, and security.¹⁴ He carefully dissociated his theory from any theory of "preformation", or at any rate from one of its cruder versions which was current.

Many ingenious philosophers have found so great difficulty in conceiving the manner of the reproduction of animals, that they have supposed all the numerous progeny to have existed in miniature in the animal originally created; and that these infinitely minute forms are only evolved or distended as the embryo increases in the womb. This idea, besides its being unsupported by any analogy we are acquainted with, ascribes a greater tenuity to organized matter than we can readily admit; as these included embryos are supposed each of them to consist of the various and complicate parts of animal bodies: they must possess a much greater degree of minuteness, than that which was ascribed to the devils that tempted St. Anthony; of whom 20,000 were said to be able to dance a saraband on the point of the finest needle without incommoding each other.¹⁵

As well as claiming the authority of Linnaeus, Darwin cited Hume, together with Locke and Berkeley, as an authority on "ideas".¹⁶ He also derived some clues from Hume which suggested to him that in his development of what he understood Linnaeus to be proposing he was on the right lines:

The late Mr. David Hume, in his posthumous works, places the powers of generation much above those of our boasted reason; and adds, that reason can only make a machine; and probably from having observed, that the greatest part of the earth has been formed out of organic recrements ... he concludes that the world itself might have been generated rather than created; that is, it might have been produced from very small beginnings, increasing by the activity of its inherent principles, rather than by a sudden evolution of the whole by the Almightyfiat.

No doubt Hume himself would have thought Erasmus' speculative extrapolation from his views absolute nonsense, but the latter's words are interesting evidence of the way someone could read the Dialogues shortly after their publication. Erasmus continued:

What a magnificent idea of the infinite power of THE GREAT ARCHITECT! THE CAUSE OF CAUSES! PARENT OF PARENTS! ENSENTIUM! For if we may compare infinities, it would seem to require a greater infinity of power to cause the causes of effects, than to cause the effects themselves. This idea is analogous to the improving excellence observable in every part of the creation; such as in the progressive increase of the solid or habitable parts of the earth from

water; and in the progressive increase of the wisdom and happiness of its inhabitants; and is consonant to the idea of our present situation being a state of probation, which by our exertions we may improve, and are consequently responsible for our actions.¹⁷

Having paid necessary tribute to piety he made the comment that "the greatest part of the earth has been formed out of organic recrements", together with some remarks which one is hard put to decide whether he could possibly have meant seriously:

As the habitable parts of the earth have been and continue to be, perpetually increasing by the production of sea-shells and corallines, and by the recrements of other animals, and vegetables; so from the beginning of the existence of this terraqueous globe, the animals, which inhabit it, have constantly improved, and are still in a state of progressive improvement. This idea of the gradual generation of all things seems to have been as familiar to the ancient philosophers as to the modern ones; and to have given rise to the beautiful hieroglyphic figure of the $\Pi\rho\omicron\tau\omicron\nu\ \omega\omicron\nu$, or first great egg, produced by NIGHT, that is, whose origin is involved in obscurity, and animated by $\epsilon\pi\omicron\varsigma$, that is, by DIVINE LOVE; from whence proceeded all things which exist.¹⁸

One must emphasise, however, that both the occasional expression of religious sentiment, and the ideas about "evolution" form a very small part indeed of Erasmus' work. What he was seeking was "A theory founded upon nature, that should bind together the scattered facts of medical knowledge, and converge into one point of view the laws of organic life". Such a comprehensive view could contribute to society in a variety of ways, in encouraging good men to be doctors, in enabling the public to distinguish good from bad medicine, and above all, it "would teach mankind in some important situations the knowledge of themselves".¹⁹ His discussion of "human sentiments" in volume 11 was always under the control of this interest in self-knowledge.

He described as "intellectual cowardice" the kind of credulity that

had been instilled into people about miracles, for example, with regard to which he said, "the golden rule of David Hume may be applied with great advantage. 'When two miraculous assertions oppose each other, believe the less miraculous.'"²⁰ He also dismissed the terror of hell as a belief "derogatory to the Creator of all things."²⁴ When he came to discuss "Pity", however, it is noteworthy that he regarded it as the foundation of our moral sense and the source of all our virtues. Man's sympathy with animals would lead him never to kill them, were it not apparent that the condition of all creatures was properly expressed in the "first law of nature", as "Eat or be eaten". He commented that "We cannot long exist without the destruction of other animal or vegetable beings ...", but urged people to distinguish between the sympathy to be acted upon with regard to the remediable evils of life, and the fortitude necessary to cope with irremediable evils.²²

The themes and interest of Erasmus in writing this work were clearly the same as those of Malthus, but should probably be read as parallel examples of the kind of "philosophy" being produced in England in the late eighteenth century. There is no reason to suppose with C.D. Darlington,²³ that Erasmus' work actually prompted that of Malthus, since the latter's concern initially was with a certain kind of social and political philosophy related to theology, and Erasmus' concern was with medicine. Another point is that the success of the Zoonomia (three editions in seven years and translation into French, German, Russian and Italian) may have resulted in its being an important

influence on Lamarck. However, the kind of thinking which came to be known as "lamarckianism", perhaps with some injustice to Lamarck himself, was exhibited in one section of Thomas Brown's Observations on the Zoonomia of 1798,²⁴ prior to the knowledge of Lamarck's work in England. Erasmus' hypothesis of generation rather than creation was a just opinion, this critic asserted, "if the inconceivable be the source of the magnificent".²⁵ The idea of the "single living filament" was a bold, a priori idea, attractive in its simplicity, but it was not clear how the filament was supposed to contain within itself, or to produce, the present different species.²⁶ The writer continued:

Dr. Darwin seems to consider the animals of former times, as possessing powers, much superior to those of their posterity. They reasoned on their wants; they wished; and it was done. The boar, which originally differed little from the other beasts of the forest, first obtained tusks, because he conceived them to be useful weapons, and then, by another process of reasoning, a thick, shield-like shoulder, to defend himself from the tusks of his fellows. The stag in like manner, formed to himself horns, at once sharp, and branched for the different purposes of offence and defence. Some animals obtained wings, others fins, and others swiftness of foot; while the vegetables exerted themselves, in inventing varied modes of concealing, and defending their feeds and honey.

His criticism of Darwin was that no-one could set bounds to this kind of argument. And, "If we admit the supposed capacity of producing organs by the mere feeling of a want, man must have greatly degenerated, or been originally inferior in power." No amount of wishing will now enable man to grow wings, and the same observation applies to other animals, in whom "no improvements of form have been observed ... since the first dawnings of zoology." They too, must have lost the power of production, rather than to have attained what they desired.

"If we may be allowed to judge, from their situation, the hare has still, in the chase, the same reason, as the birds of old, to wish for wings, and the dove for greater swiftness of flight, to escape from the pursuing hawk; Yet the scale of inferiority still subsists; and such is the order of nature, that the strength of all is supported by the weakness of all."²⁷ There was in this kind of criticism no argument about the "fact" of a certain "hierarchy" in creatures. And "hierarchy" was mentioned in connection with an awareness that this necessarily involved the destruction of one creature by another. Also, as in the work of Erasmus Darwin himself as well as in that of Malthus, there was a recognition that man's awareness of this destruction was one of the miseries of human life, which might be made tolerable only by exertions to improve man's lot. Such exertion was in accord with the general tendency exhibited by creatures as a whole.

In his Phytologia; or the Philosophy of Agriculture and Gardening²⁸ of 1800, Erasmus produced another version of his thesis about the formation of geological strata, and urged the view that the progressive building up of strata gave pleasure to those organised beings which formed them. This time he concluded: "We hence acquire this sublime and interesting idea; that all the calcareous mountains in the world, and all the strata of clay, coal, marl, sand, and iron, which are incumbent on them, are MONUMENTS OF THE PAST FELICITY OF ORGANIZED NATURE! - AND CONSEQUENTLY OF THE BENEVOLENCE OF THE DEITY!"²⁹ Shortly after drawing this edifying corollary, when he embarked on

a discussion of Linnaean classification, he proposed that the "mutability or uncertainty of the numbers of the organs of reproduction belonging to individual flowers, would seem to arise from an attempt of all organized beings towards greater perfection ...". And he wrote of "the perpetual progress of all organised beings from less to greater perfection existing from the beginning of time to the end of it! a power impressed on nature by the great Father of all."³⁰ This remark was presumably his way of trying to make his speculations acceptable to his more pious readers. The more one reads of Erasmus Darwin's work, the more one is driven to the conclusion that he thought of himself as essentially a practical man who necessarily had to treat of a theology which did not matter to him personally to make his work publicly acceptable. Yet he did not ignore the other side of the picture labelled "the happiness of organic life".³¹ The law of life, as he said in Zoonomia, is "eat or be eaten", so he could draw a picture of the world as "one great slaughter house, one universal scene of rapacity and injustice!" His particular parody of design-theology appeared when he wrote that a philosopher had visited his library and observed that no statesman or hero could propagate as much misery as might be supposed:

Thus, if a Russian army, in these insane times, after having endured a laborious march of many hundred miles, is destroyed by a French army in defence of their republic, what has happened? Forty thousand human creatures dragged from their homes and their connexions cease to exist, and have manured the earth; but the quantity of organized matter, of which they were composed, presently revives in the forms of millions of microscopic animals, vegetables, and insects, and afterwards of quadrupeds and men; the sum of whose happiness is perhaps greater than that of the harassed soldiers, by whose destruction

they have gained their existence! Is not this a consoling idea to a mind of universal sympathy?

And a friend had observed with reference to a project of draining land in order to provide pasture for oxen, that to do so involved destroying a "thousand free republics or ants, and ten thousand rational frogs, besides innumerable aquatic insects, and aquatic vegetables."

The importance of Erasmus' work lies in three points. One is the view of Erasmus' awareness of the implications of his work held by King-Hele; another is the popularisation in his own time of Darwin's view of life through his transposition of that vision into poetry; and the third is the way in which Erasmus may have provided for his grandson a pattern of a lamentably inadequate theology to be related to his study of nature, as effectively as he provided him with the themes of the study of nature itself. It is true that Erasmus realised there could be criticism of his views on religion, but this is different from saying that he was aware of the religious and philosophical implications of his theory of evolution. He seems not to have had a belief in a creator, such as one finds in Paley, which would have enabled him to interpret his material so that it seemed to have a meaningful reference to God. Hesketh Pearson quoted a letter of his of 1745 which perhaps represented his earlier "orthodoxy". Darwin's letter was written on the death of his father and in it he said ;

That there exists a superior ens entium, which formed these

wonderful creatures, is a mathematical demonstration. That He influences things by a particular providence, is not so evident. The probability, according to my notion, is against it, since general laws seem sufficient for that end. Shall we say no particular providence is necessary to roll this Planet round the Sun, and yet affirm it necessary in turning up cinq and quatorze, while shaking a box of dice or giving each his daily bread? The light of Nature affords us not a single argument for a future state; this is the only one, that it is possible with God, since He who made us out of nothing can surely re-create us; and that He will do this is what we humbly hope ...³²

Having looked at some of the material from his prose works, one can see how it would come about that a Biographical Memoir³³ written of him as an honorary member of the Literary and Philosophical Society of Newcastle-upon-Tyne would suggest that there was reason to suspect that he was not a believer in divine revelation, and that he thought belief to be a private affair between a man and his maker. Not long before his death a friend pressed him about his religion, and Darwin said that "it was natural to extend our wishes and views beyond the present scene, and that it was right to pursue such measures as are likely to secure our happiness in another world; but let us not hear anything about hell",³⁴

Oddly enough, in view of the way in which he is now regarded as his grandson's precursor in the field of evolutionary theory, the writer of the memoir nowhere refers to that theory precisely, but only perhaps by implication in his description of Darwin as a "medical philosopher" and a "philosophical agriculturalist",³⁵ This may suggest that his ideas were not always taken too seriously, though they had been widely disseminated through his published poetry. King-Hele³⁶ remarked of Darwin's last poem, The Temple of Nature³⁷ of 1803 that "It is a

splendid achievement, at a time when biological science was by modern standards so primitive, to have described the origin and development of life in a way which is still largely acceptable." That it was meant to state in poetic form the evolutionary thesis of the Zoonomia is clear, both from the poem itself, and from some of its "philosophical notes". Darwin said:

But it may appear too bold in the present state of our knowledge on this subject, to suppose that all vegetables and animals now existing were originally derived from the smallest microscopic ones, formed by spontaneous vitality? and that they have by innumerable reproductions, during innumerable centuries of time, gradually acquired the size, strength, and excellence of form and faculties which they now possess? and that such amazing powers were originally impressed on matter and spirit by the great Parent of Parents! Cause of Causes! Ens Entium! 38

Canto iv, headed "Of Good and Evil",³⁹ included a reference to one of his standard examples:

"The wing'd Ichneumon for her embryo young
Gores with sharp horn the caterpillar throng.
The cruel larva mines its silky course,
And tears the vitals of its fostering nurse."

So the world appeared to him as in the Phytologia to be one great slaughter house,⁴⁰ and he asked:

"Ah where can Sympathy reflecting find
One bright idea to console the mind?
One ray of light in this terrene abode
To prove to Man the Goodness of his God?"⁴¹

The answer was to be found in human achievements.

According to King-Hele, the poem The Botanic Garden of 1789-92 was the chief source of Erasmus' fame during his own lifetime,⁴² and King-Hele praised him particularly because "no one has ever excelled him in writing couplets crammed with scientific information which

yet read easily and epigrammatically."⁴³ Here one finds in the poem the material about the course of the development of the earth's surface which he had already sketched in the Zoonomia. We may note, incidentally, that King-Hele approved of Darwin more than he did of Hutton, on whom Darwin was dependent for much of his information about geology. King-Hele said that Hutton was "obsessed with the question of whether the excellent geological system he propounds shows signs of divine wisdom."⁴⁴ But between the publication of this poem, popular though it was, and the publication of the Temple of Nature much had been done to destroy Darwin's reputation, not only as a poet but as a "natural philosopher" - hence, perhaps, the caution of the writer of the Memoir. His enemies were those who were frightened of change of opinion in religion as in politics.⁴⁵ Mockery of him, together with the sensible criticism of him continued in such works as Paley's Natural Theology; different styles of poetry; the fact that some of his ideas were embodied in medical and agricultural works which would be superseded; - all these made him unattractive as a guide, and a doubtful authority. Only within his own family was he still so respected that his work was to provide a framework of reference for that of his grandson, both for his biology and for his theism. We may now turn to Paley as one of Erasmus Darwin's critics, who saw how much the latter had been influenced by Hume, and who therefore could attempt to deal with both of them together.

Erasmus Darwin

- 1 D. King-Hele, Erasmus Darwin, London: Macmillan, 1963.
Cited as King-Hele, Darwin.
- 2 Ibid., p. 82.
- 3 Hesketh Pearson, Doctor Darwin, London: Dent, 1930, p. 201-2.
Cited as Pearson, Darwin. Cf. Wollheim, Hume, p. 181-2.
- 4 Erasmus Darwin, Zoonomia; or, the Laws of Organic Life, London:
J. Johnson, 1794. Cited as Darwin, Zoonomia.
- 5 Included in E. Krause, The Life of Erasmus Darwin, being an
Introduction to an Essay on his Scientific Works, 2nd ed.,
London: J. Murray, 1887. Krause's essay, p. 131f was originally
published in a German periodical in 1879.
- 6 Ibid., p. 1-2.
- 7 Darwin, Zoonomia, I, vii-viii.
- 8 Ibid., p. 532.
- 9 Ibid., p. 109, p. 199, p. 505.
- 10 Ibid., p. 1.
- 11 Ibid., p. 489.
- 12 Ibid., p. 507. Cf. p. 498-9. Also E. Darwin, Botanic Garden,
London: J. Johnson, 1799, p. iiif on the Linnaean system, and
p. x on Linnaeus' "preface" to his Natural Orders. Cited as
Darwin, Botanic Garden.
- 13 Darwin, Zoonomia, I, 500-508. Cf. King-Hele, Darwin, pp. 67-72.
- 14 Darwin, Zoonomia, I, 503. Cf. Wollheim, Hume, p. 179.
- 15 Ibid., p. 489-90. Cf. Wollheim, Hume, p. 122.
- 16 Darwin, Zoonomia, I, p. 52 and p. 184.
- 17 Ibid., p. 509.
- 18 Ibid., p. 528-9.
- 19 Ibid., p. 2. Cf. II, 411.

- 20 Darwin, Zoonomia, II, 410f.
- 21 Ibid., 379.
- 22 Ibid., p. 383.
- 23 C.D. Darlington, Darwin's Place in History, Oxford: Blackwell, 1959, p. 12f. Cited as Darlington, Darwin.
- 24 Thomas Brown, Observations on the Zoonomia, Edinburgh: J. Johnson, 1798.
- 25 Ibid., p. 433f.
- 26 Ibid., p. 463.
- 27 Ibid., p. 466-7.
- 28 E. Darwin, Phytologia; or the Philosophy of Agriculture and Gardening, London: J. Johnson, 1800.
- 29 Ibid., p. 559-60.
- 30 Ibid., p. 567.
- 31 Ibid., p. 556f.
- 32 Pearson, Darwin, p. 5-6.
- 33 Anon, Biographical Memoir of Dr. Darwin, an Honorary Member of the Literary and Philosophical Society, from the Monthly Magazine of May and June 1802, reprinted in the Reports etc. of the Literary and Philosophical Society of Newcastle-on-Tyne, (1799-1802), II.
- 34 Ibid., p. 462.
- 35 Ibid., p. 459-60.
- 36 King-Hele, Darwin, p. 120.
- 37 E. Darwin, The Temple of Nature; or, the Origin of Society: A Poem, with Philosophical Notes, London: J. Johnson, 1803. Cited as Darwin, Temple. Cf. Irwin Primer, "Erasmus Darwin's Temple of Nature: Progress, Evolution, and the Eleusinian Mysteries", Journal of the History of Ideas, XXV, (1964), 58-76.
- 38 Darwin, Temple, p. 38 of the notes.
- 39 Ibid., p. 129f. Cf. Darwin, Phytologia, p. 360.

- 40 Darwin, Temple, p. 134.
- 41 Ibid., p. 141.
- 42 King-Hele, Darwin, p. 97.
- 43 Ibid., p. 98.
- 44 Ibid., p. 103.
- 45 Ibid., p. 134f.

C. Paley

What one finds in William Paley's Natural Theology¹ of 1802 is flat contradiction of Hume's scepticism about reason in its operation in this subject area; the exhibition of some of Darwin's views as nonsense; and some agreement with points found in Malthus' first essay, though the whole approach of Paley to nature was different in temper from that of Malthus. It has already been noted that A.E. Taylor's criticism of Hume included his recommendation of "the sound common sense of the almost universally discredited Paley Nature is, to be sure, not a gigantic 'knitting-loom', but, when all is said, nature is more like a knitting loom than it is like an animal or vegetable." This meant that both nature and knitting-loom are "structures which have a significance relative to something beyond themselves; both are instrumental to something."² This view re-affirmed the approval of Paley that was common not only during his own lifetime, but for long afterwards. For example, of Paley's Natural Theology Charles Darwin said that he hardly ever admired a book more, and that formerly he could almost have said it by heart.³ And T.H. Huxley described Paley as "the acute champion of teleology", and said that Paley at least had no difficulty in admitting that the "production of things" was the result of "trains of mechanical dispositions fixed beforehand by intelligent appointment and kept in action by a power at the centre, that is to say, he proleptically accepted the modern doctrine of Evolution - and his successors might do well to follow their leader, or at any rate to attend to his weighty reasonings, before rushing into an antagonism

which has no reasonable foundation."⁴ His attraction for Huxley was partly to be explained by the fact that Paley was fascinated by the work of the anatomists, and therefore provided a theology for men such as Sir Richard Owen - a theology which Huxley came to see was irrelevant for scientific work, yet undeniably interesting. Paley also represented an antidote to the gloom and scepticism on the one hand, and the hedonism on the other, which Hume indicated in the Dialogues. It is as though he was endeavouring to present Linnaeus' deity in a new kind of context. But if someone were to find Erasmus Darwin's minimal theism more manageable than Paley's (because anything could be said about nature in relation to it);-- put Paley's "facts" into Darwin's kind of theoretical framework; find something to say about "principles of order" and "laws" that would commend itself - then it might be found that the problem of theodicy would remain but would be firmly ruled out of "science". So Shaw commented: "If only some genius, whilst admitting Paley's facts, could knock the brains out of Paley by the discovery of a method by which watches could happen without watchmakers, that genius was assured of such a welcome from the thought of his day, as no natural philosopher had ever enjoyed before."⁵ The work of Charles Darwin and others, however, did not mean that Paley's point of view was immediately discredited - if even that supposed enemy of religion, Huxley, could commend him in such warm terms and mean what he said, how much more would those who would read Paley as a complement to Butler.⁶ The Bridgewater treatises were a direct continuation of Paley's tradition, and generations of undergraduates

at Cambridge⁷ drilled themselves through the Natural Theology and his other works. It was at Cambridge that Charles Darwin found in Paley one of the few authors he could read with interest. There were some, like Coleridge, who hated Paley - Shelley for one is reported to have claimed that he would rather be damned with Plato and Bacon than go to heaven with Paley and Malthus.⁸ But on the whole Paley was approved, and presented in his Natural Theology perhaps the most important example of the theology the scientists were going to have to teach themselves to do without.

In his work, Paley straightaway stated his case, and having done so, employed the same points throughout his argument. The reader is never allowed to forget Paley's position. All the illustrations are linked to what he stated at the beginning, as are his criticisms of both Hume and Erasmus Darwin, so that the reader should ultimately be convinced by the accumulation of material and its coherence, that Paley's fundamental argument must be right.

Paley shrewdly picked out something relatively small but complex, a watch⁹ - to instance as his first illustration and to engage his reader's interest. Ignorance of the details of how such an object was made "exalts our opinion of the unseen and unknown artist's skill, if he be unseen and unknown, but raises no doubt in our minds of the existence and agency of such an artist, at some former time, and in some place or other."¹⁰ Nor was the argument destroyed if the watch sometimes keeps time irregularly, or if we cannot under-

stand every detail of its operation.¹¹ To try to account for it by saying that the "watch" must of itself have had "some internal configuration or other" is meaningless. No man in his senses would think of accounting for it in such a way; nor would he find explanation in terms of "a principle of order" intelligible. "He never knew a watch made by the principle of order; nor can he even form to himself an idea of what is meant by a principle of order, distinct from the intelligence of the watchmaker." It was, moreover, a "perversion of language" to describe a "law" as the "efficient operative cause" of something. A law is the mode by which an agent proceeds, an order according to which a power acts.¹² And so long as a man knows something about the law in question, even if he does not comprehend it fully, he need not have a total distrust of his knowledge.¹³ Paley next elaborated his example of the watch so that the watch became a self-propagating one, from the examination of which the observer must conclude that "that an artificer had been originally employed and concerned in the production"¹⁴ of the very first of these self-propagating machines. No infinite regress would produce "self-support."¹⁵ It was plainly atheism to maintain "that no art or skill whatever has been concerned in the business, although all other evidence of art and skill remain as they were."¹⁶ His other major example was that of the eye¹⁷ in what seems so far to be his examination of some of the points made in the first three parts of Hume's Dialogues. It is as though he was now saying that a self-propagating watch was a better example than that of the self-propagating vegetable library, so that it was Cleanthes' example of

the eye that was the sound one to employ. Paley embarked on a detailed survey of the structure and contrivance of the eye in his attempt to find a "cure for atheism".¹⁸ And in a digression he tackled the question of the need for such complex contrivances.¹⁹ The criticism with which he was dealing was that "Contrivance, by its very definition and nature, is the refuge of imperfection. To have recourse to expedients, implies difficulty, impediment, restraint, defect of power."²⁰ There may be answers to this of which we are ignorant, he affirmed, but "one answer is this: It is only by the display of contrivance, that the existence, the agency, the wisdom of the Deity, could be testified to his rational creatures. This is the scale by which we ascend to all the knowledge of our Creator which we possess, so far as it depends upon the phenomena, or the works of nature." God limits his power in order to allow for the exercise and exhibition of the laws which he has made.²¹ Further, whatever other illustrations were to be employed,²² Paley insisted that irregularities and imperfections were of no weight when the existence of the creator was under consideration, though they did matter when his attributes were being reviewed. Problems to do with the attributes of God

are then to be taken in conjunction (the attention is not to rest upon them, but they are to be taken in conjunction) with the unexceptionable evidence which we possess, of skill, power and benevolence, displayed in other instances; which evidences may, in strength, number, and variety, be such, and may so overpower apparent blemishes, as to induce upon us, upon the most reasonable ground, to believe, that these last ought to be referred to some cause, though we be ignorant of it, other than defect of knowledge or of benevolence in the author.²³

Reference to a cause implied that chance was excluded "from the present disposition of the natural world." - "Universal experience is against it. What does chance ever do for us?"²⁴ It would not account even for "appearances of organisation far short of those of the eye, such as we observe in fossil shells, petrified bones, or other substances which bear the vestiges of animal or vegetable recrements, but which, either in respect to utility, or of the situation in which they are discovered, may seem accidental enough."²⁵ That Erasmus Darwin for one was now the target becomes evident, and Paley's arguments against him were similar to those of Thomas Brown. The point of view Darwin represented "has the same effect as the resolving of things into chance".²⁶ Darwin had proposed that present creatures are the relict of others, "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." Paley thought there was no reason to discuss the question of the extinction of some species - since there was no evidence for it. Nor was it credible that every conceivable variety was even possible.²⁷ According to Paley, "Upon the supposition here stated, we should see unicorns and mermaids, sylphs and centaurs, the fancies of painters, and the fables of poets, realised by examples."²⁸ Such a concept of variety, moreover, "rejects all plan", which seemed to Paley to be exemplified in the distribution of creatures into genera and species, "which distribution is not an arbitrary act of the mind, but founded in the order which prevails in external nature."²⁹ Darwin's idea, of animals proposing uses for organs to themselves, was also ridiculed: "None of the senses

fundamentally depend upon the election of the animal; consequently, neither upon his sagacity, nor his experience. It is the impression which objects make upon them, that constitutes their use."³⁰ The disposition of the animal in relation to its surroundings is "a concerted and contrived relation".³¹ "The web-foot determines, you say, the duck to swim; but what would that avail, if there were no water to swim in?" So he firmly concluded: "Faculties thrown down upon animals at random, and without reference to the objects amidst which they are placed, would not produce to them the services and benefits which we see: and if there be that reference, then there is intention." Nor would Darwin's absurd hypothesis answer for plants in which parts answer their uses, "without any concurrence from the will or choice of the plant."³² When Paley reverted to his point about limitations of human reason at this stage of his discussion it was because he wanted to make it clear that a posteriori design theology was not the speculative kind of thinking proposed by Darwin. It was not to be supposed that theism could be equated with such an untrustworthy hypothesis. There was a security and a sense that could be found in and through the exercise of coherent argument of the sort Paley found to be warranted. "I take it to be a general way of infusing doubts and scruples into the mind, to recur to its own ignorance, its own imbecility: to tell us that upon these subjects we know little; that little imperfectly; or rather, that we know nothing properly about the matter."³³ Therefore, since the "mechanical" parts of the human frame which may be "the coarsest portions of nature's workmanship",³⁴

were thought by him to be the most "proper" to the argument he embarked on an extensive review of the human body, sometimes picking his examples very cleverly - the pivot joints of the neck on which the head rests,³⁵ the perforation of tendons to allow for another tendon to pass through it.³⁶ "There is nothing, I believe, in a silk or cotton mill, in the belts, or straps, or ropes, by which motion is communicated from one part of the machine to another, that is more artificial, or more evidently so, than in this perforation."³⁷ From time to time he referred to his fundamental points of criticism of other views. On Darwin again, for example:

There is no room for pretending that the action of the parts may have gradually formed the epiglottis; I do not mean in the same individual, but in a succession of generations. Not only the action of the parts has no such tendency, but the animal could not live, nor consequently the parts act, either without it, or with it in a half-formed state. The species was not to wait for the gradual formation or expansion of a part which was, from the first, necessary to the life of the individual.³⁸

He could also sometimes write what now seems to be absurd "explanation", but it is an injustice to him to quote such passages in isolation. When he wrote about the wisdom of the creator seen in the way different items of a body contribute together "to one effect and one use", he said of the spleen that "It is possible, in my opinion, that the spleen may be merely a stuffing, a soft cushion to fill up a vacancy or hollow, which, unless occupied, would leave the package loose and unsteady ..."³⁹ And in connection with beauty, another of the Creator's concerns, he wrote of how over the whole body "is drawn an integument, which converts the disgusting materials

of a dissecting-room into an object of attraction to the sight ..."⁴⁰

He arrived about a third of the way through his book⁴¹ at his distinctive way of indicating what he meant by the divine activity in creation. "I can hardly imagine to myself a more distinguishing mark, and, consequently a more certain proof of design, than preparation, i.e. the providing of things beforehand, which are not to be used until a considerable time afterwards: for this implies a contemplation of the future, which belongs only to intelligence." So he once more made use of the example of the eye. "The eye is of no use, at the time when it is formed. It is an optical instrument made in a dungeon; constructed for the refraction of light to a focus, and perfect for its purpose, before a ray of light has had access to it; geometrically adapted to the properties and action of an element, with which it has no communication. It is about indeed to enter into that communication: and this is precisely the thing which evidences intention."⁴² The eye was prepared not for any gradual progress or advance on its own part but for the precise moment of the animal's birth. And when he came to elaborate on the theme of the relations of parts to one another he remarked: "Can any relation be more simple, yet more convincing, than this, that the eyes are so placed as to look in the direction in which the legs move and the hands work?"⁴³ Another way in which he emphasised this was in his assertion that the works of the Deity are known by "expedients". The snail, lacking wings, feet or thread can climb up and adhere to plants "by means of a sticking-plaster".⁴⁴ And of the provision of

the means of growth for the lobster he asks: "How was the lobster to extricate himself from his present confinement? how was he to uncase his buckler, or draw his legs out of his boots?" - and described what he knew of the lobster's change of shell.

Returning to Erasmus Darwin Paley repeated that it was not variety alone, "distinct from every other reason"⁴⁶ that was a motive in the mind of the Creator. There is variety, but it is controlled and modified by an elementary competition. "To this great variety in organised life, the Deity has given, or perhaps there arises out of it, a corresponding variety of animal appetites. For the final cause of this, we have not far to seek. Did all animals covet the same element, retreat or food, it is evident how much fewer could be supplied and accommodated than what at present live conveniently together, and find a plentiful subsistence." Unity of purpose is thus maintained under a variety of patterns.⁴⁷ So, "We can perceive, that if the seeds of plants were more strongly guarded than they are, their greater security would interfere with other uses."⁴⁸ Some species of animals might suffer for lack of food, plants might overrun the soil and seeds not have room to grow. There is a balance maintained, the result of which is "that out of the many thousand different plants which cover the earth, not a single species, perhaps, has been lost since the creation."⁴⁹ Therefore he directly cited Darwin's Phytologia⁵⁰ for criticism. Darwin had not disproved contrivance but had only attempted to eliminate it from his discussion. (Paley could also use Darwin's examples, from the notes in the Botanic Garden⁵¹, when they suited his own purposes in writing.)

Paley was hesitant about how to cope with material provided by the astronomers. Astronomy served to exhibit the magnificence of the Deity's operation,⁵² but man was destitute of the means of examining the constitution of the heavenly bodies, - the "very simplicity of their appearance is against them." In other words, the astronomers did not furnish Paley with so many advantageous examples. He could congratulate man for the knowledge he had of astronomy, however, and thus reinforce his basic insistence on the adequacy, though not absolute sufficiency, of man's reason in relation to the project in hand.⁵³

Whether illustration was to be drawn from the insect world or from the heavens, Paley's conviction remained the same. "Contrivance, if established, appears to me to prove everything which we wish to prove." He was at this stage prepared to talk about the "personality" of the Deity, as distinguished from "nature" or some such "principle". Such terms, as he had already explained, seemed to be intended to "admit and to express an efficacy, but to exclude and to deny a personal agent." And personality required mind, of which he said that we had no authority to limit its properties to any particular corporeal form, or to any particular circumscription of space.⁵⁴ To grasp the notion of God's self-sufficiency was to see the mistake of attributing "eternity" to the present universe, and understanding the meaning of "contrivance" would show the absurdity of that attribution.⁵⁵ To label, or "name" Paley's "power at the centre"⁵⁶ as "generation" elicited from him the statement that the truth is that "generation is

not a principle, but a process"⁵⁷. Against Hume, it was not a word which would "explain" the formation of the world with the lucidity it had when applied to the coming into being of groups of plants and animals. The a posteriori argument to a divine agent seemed to him to be so cogent as to be "not only popular but vulgar", and this was the only reason why those minds "which are habitually in search of invention and originality, feel a restless inclination to strike off into other solutions and other expositions."⁵⁸

Back to Darwin yet again he noted as an example of what he had said, "Another system which has lately been brought forward, and with much ingenuity", - that of "appetencies".⁵⁹ He hesitated to label this system as atheistic because the original propensities of things "are, in the plan itself, attributed to the ordination and appointment of an intelligent and designing Creator".⁶⁰ But it was atheistic in that "in the formation of plants and animals, in the structure and use of their parts, it does away with final causes". So he proposed: "Give our philosopher these appetencies; give him a portion of living irritable matter (a nerve, or the clipping of a nerve), to work upon: give also to his incipient or progressive forms, the power, in every stage of their alteration, of propagating their like; and, if he is to be believed, he could replenish the world with all the vegetable and animal productions which we at present see in it."⁶¹ There was a total lack of evidence for such suppositions, and "How will our philosopher get at vision, or make an eye?"⁶² One must conclude that

upon the whole, "after all the schemes and struggles of a reluctant philosophy, the necessary resort is to a Deity. The marks of design are too strong to be gotten over. Design must have had a designer. That designer must have been a person. That person is GOD."⁶³

Passing the attributes of God under review,⁶⁴ Paley devoted a separate section to God's goodness,⁶⁵ resting his case on two observations: that contrivance was beneficial, and that there was a preponderance of pleasure over pain. Therefore, against Hume he maintained that "one great cause of our insensibility to the goodness of the Creator, is the very extensiveness of his bounty. We prize but little what we share only in common with the rest, or with the generality of our species." But it was these "common benefits" which were the "great things".⁶⁷ It was in those things "which are so common as to be of no distinction, that the amplitude of the Divine benignity is perceived." And quoting from his "Moral Philosophy"⁶⁸ he affirmed that pain and misery were never objects of contrivance in nature.⁶⁹ "We never discover a train of contrivance to bring about an evil purpose." What then could be said of "venomous animals", which belonged to the category of animals that prey on one another? "These properties of animals, wherever they are found, must, I think, be referred to design; because there is in all cases of the first, and in most cases of the second, an express and distinct organisation provided for the producing of them."⁷⁰ We cannot avoid the difficulty by saying the effect was not intended, but have to ask the question whether it be ultimately evil.⁷¹ Addressing himself specifically to

Linnaeus' problem about serpents as the latter had described it, he paraphrased Linnaeus' points - that the venomous bite of the snake serves its own good; that less than a tenth of snakes are so armed; that such a selective arming of some guards the whole tribe, so that since they are rarely distinguishable as poisonous by some external mark, all are avoided.⁷² The point at which he balked was Linnaeus' comment that "when the Indian poisonous snake ... bites at a considerable age, there is no appeal."⁷³ Paley believed that the "case of bites, which produce death in large animals (of stings I think there are none) to be very few." Even the bite of a rattlesnake would not usually be mortal.⁷⁴ Further, he was confident that problems concerning the relationship between man and some animals would not arise were it not for the fact that human beings insist on invading the environments of other creatures. "We invade the territories of wild beasts and venomous reptiles, and then complain that we are infested by their bites and stings." There are "natures" proper to different situations.⁷⁵ "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."⁷⁶ Of animals devouring one another he remarked: "Is it then to see the world filled with drooping, superannuated, half-starved, helpless, and unhelped animals, that you would alter the present system of pursuit and prey?" Animals have no anticipation of danger to render their lives miserable.⁷⁷ So this matter ought to be considered "in strict connection with another property of animal nature, viz. superfecundity." Superfecundity is a

provision of the Deity "to keep the world always full", and it allows the species of animals to vary in proportion to different situations afforded for room and food.⁷⁸ But superfecundity, "though of great occasional use and importance, exceeds the ordinary capacity of nature to receive or support its progeny. All superabundance supposes destruction, or must destroy itself." So, "thinnings must take place by the actions of animals on one another. And nature studiously guards against the loss of any species from the universe: Though there may be the appearance of failure in some of the details of Nature's works, in her great purposes there never are. Her species never fail. The provision which was originally made for continuing the replenishment of the world, has proved itself to be effectual through a long succession of ages."⁷⁹ So he could express his confidence that "The whole tendency of nature is towards gratification and enjoyment; which is, in other words, the goodness of its Author towards his sensitive creation."⁸⁰

Having established to his satisfaction an understanding of what was to be meant by the benevolence of the deity in the context of his a posteriori theology he turned to the origin of evil, for which he said, there was no solution which reached to all cases of complaint.⁸¹ He suggested that the most "comprehensive" solution was that which came from the consideration of general rules, both those we comprehend, and those we do not. General laws, "however well set and constituted, often thwart and cross one another" and from this some "particular inconveniences" arise. Then follows a paragraph in which he paid

attention to explanation in terms of the evils of "imperfection",⁸² of which he furnished a brief description:

It is probable, that creation may be better replenished by sensitive beings of different sorts, than by sensitive beings all of one sort. It is likewise probable, that it may be better replenished by different orders of beings rising one above another in gradation, then by beings possessed of equal degrees of perfection. Now a gradation of such beings, implies a gradation of imperfections. No class can justly complain of the imperfections which belong to its place in the scale, unless it were allowable for it to complain, that a scale of being was appointed in nature; for which appointment there appear to be reasons of wisdom and goodness.

Both the explanation in terms of general laws, and that in terms of imperfection, are "the two metaphysical answers which have been given to this great question. They are not the worse for being metaphysical, provided they be founded (which I think they are) in right reasoning; but they are of a nature too wide to be brought under our survey, and it is often difficult to apply them in the detail."⁸³ This is Paley's sole comment in this work on "metaphysical" theology and its possible validity. (He would, presumably, still have recommended Law's translation of King's book, together with its notes on Bayle and Leibniz etc., though⁸⁴ made it clear in his memoir of Law that this particular service Law rendered to theology was not comparable in value with that proffered through many of his other writings.⁸⁴) A metaphysical theology would not it seems have supported Paley through his last illnesses, which Clarke suggested were still in his mind when he wrote the passages in the Natural Theology about pain and death and their functions.⁸⁵ He recovered sufficiently to write his final observations which showed how he and Malthus were at any rate initially in support of one another.

It has already been indicated that Paley was at least aware of problems to do with population, food supply and environment. Malthus apparently had converted him from the view that "The quantity of happiness in any country is best measured by the number of people", by his Essay of 1798, but even so, when discussing Malthus' opinions somewhat briefly in the last part of the Natural Theology, "it cannot be said that he subjected his earlier opinions to a thorough revision. His natural cheerfulness could not be damped by the depressing prospect opened up by Malthus."⁸⁶ What he had to say about Malthus appeared in the course of some of his comments on society, comments which were still part and parcel of a proper theodicy. For him, "engagement" was the great principle of human satisfaction, and in its pursuit evil was to be put into perspective.⁸⁷ He would have none of Hume or Erasmus Darwin's complaints about "higgard nature". For rational occupation, which he defined as "the very material of contented existence," there would be no place left, "if either the things with which we had to do were absolutely impracticable to our endeavours, or if they were too obedient to our uses. A world, furnished with advantages on one side, and beset with difficulties, wants, and inconveniences on the other, is the proper abode of free, rational, and active natures, being the fittest to stimulate and exercise their faculties." It is from the "refractoriness" of the objects with which men have to deal that the seed and principle of physical evil arises.⁸⁸ With regard to "civil evils", he drew attention in a note to "a late treatise upon population" which he thought should inspire the endeavour to ameliorate conditions.⁸⁹

There might be limits fixed by nature both to happiness and to the number of people who could partake of it, "but they are limits not yet attained, nor even approached, in any country of the world." And those limits would only be concerned with the provision of animal wants, since there are many ways of increasing human happiness, "communicable without restriction of numbers",⁹⁰ On the other hand, he did not want "incessant, universal, indefatigable activity" which could be dangerous to society. So Mr. Hume's assertion, in his posthumous dialogues, that idleness was the root of the many evils from which men suffered, needed careful qualification to distinguish unwanted idleness from desirable ease.⁹¹

When he turned to the meaning of "providence"⁹² he defended the notion for its importance to piety. It "applies to the consolation of men's minds, to their devotions, to the excitement of gratitude, the support of patience, the keeping alive and the strengthening of the very motive for endeavouring to please our Maker."⁹³ The most reasonable view of human life which had been suggested was that which regarded it as a state of probation. If such a suggestion was a matter of "religion" rather than of "philosophy", that in itself ought not to preclude our employing the tradition, "if it should turn out to be the case, that the more religious our views are, the more probability they contain."⁹⁴ Philosophy and religion are coherent, for "if one train of thinking be more desirable than another, it is that which regards the phenomena of nature with a constant reference to a supreme intelligent Author. To have made this the ruling, the habitual, sentiment of our minds, is to have lain the foundation of

everything which is religious. The world thenceforth becomes a temple, and life itself one continued act of adoration."⁹⁵ We understand God to be arranging the planetary systems, and also "concerting and providing an appropriate mechanism, for the clasping and reclasping of the filaments of the feather of the humming bird."⁹⁶ There is no sign of his diminution of care "by multiplicity of objects, or of distraction of thought by variety. We have no reason to fear, therefore, our being forgotten, or overlooked, or neglected."⁹⁷

In view of Coleridge's criticism of Paley following on from the former's denunciation of Hume, Malthus, and Erasmus Darwin, it is perhaps worth paying particular attention to this thesis of Paley's on the care of God, as he understood it, for each individual creature. There was some justification for Huxley's view of Paley which would lend support to the proposal that Coleridge's dislike of Paley's theology was well-grounded from a "religious" standpoint. But Paley's God seems to have had an interest in the welfare of his creatures, an interest to which Huxley would not have found it helpful to refer when making the points of his own argument. It was not, for Paley, simply that the first original "watch" went on producing subsequent "watches", but that each subsequent "watch" was also related to its "watchmaker" proper, the creator of the original. God was not ordinarily "absent" from his world, and verbal abstractions such as "law" and "principle of order" should be recognised for what they were -- expressions of what Paley insisted was the immediate activity of God.

Paley

- 1 William Paley, Natural Theology, or Evidence of the Existence and Attributes of the Deity, collected from the Appearances of Nature, in Works IV, London, 1819. Cited as Paley, Natural Theology.
- 2 Taylor, "Symposium", p. 204-5. Cf. T. McPherson, The Argument from Design, Edinburgh: Macmillan, 1972, p. 56. Cited as McPherson, Design.
- 3 F. Darwin, ed., The Life and Letters of Charles Darwin, London: J. Murray, 1888, II, 219. Cited as Darwin, C. Darwin.
- 4 Ibid., T.H. Huxley, "On the reception of the Origin of Species", p. 202.
- 5 G.B. Shaw, Back to Methuselah, p. xl.
- 6 M.L. Clarke, Paley: Evidences for the Man, London: S.P.C.K., 1914, pp. vii-viii, and p. 97. Cited as Clarke, Paley.
- 7 Ibid., p. 127f.
- 8 Ibid., p. 128.
- 9 Paley, Natural Theology, p. 1f.
- 10 Ibid., p. 3.
- 11 Ibid., p. 4.
- 12 Ibid., p. 5. Cf. p. 47 and p. 55.
- 13 Ibid., p. 6.
- 14 Ibid., p. 8.
- 15 Ibid., p. 10.
- 16 Ibid., p. 13.
- 17 Ibid., p. 14f.
- 18 Ibid., p. 26.
- 19 Ibid., p. 30f.
- 20 Ibid., p. 31.
- 21 Ibid., p. 32.

- 22 Ibid., p. 33f.
- 23 Ibid., p. 45.
- 24 Ibid., p. 49. Cf. 401f.
- 25 Ibid., p. 48-9.
- 26 Ibid., p. 50.
- 27 Ibid., p. 51.
- 28 Ibid., p. 50.
- 29 Ibid., p. 51.
- 30 Ibid., p. 53.
- 31 Ibid., p. 54.
- 32 Ibid., p. 55.
- 33 Ibid., p. 58. Cf. p. 14.
- 34 Ibid., p. 22.
- 35 Ibid., p. 73.
- 36 Ibid., p. 112.
- 37 Ibid., p. 113.
- 38 Ibid., p. 141.
- 39 Ibid., p. 152-3.
- 40 Ibid., p. 155.
- 41 Ibid., p. 198.
- 42 Ibid., p. 202.
- 43 Ibid., p. 211.
- 44 Ibid., p. 222.
- 45 Ibid., p. 223.
- 46 Ibid., p. 270.
- 47 Ibid., p. 271.

- 48 Ibid., p. 277.
- 49 Ibid., p. 278.
- 50 Ibid., p. 281.
- 51 Ibid., p. 284.
- 52 Ibid., p. 297f.
- 53 Ibid., p. 299.
- 54 Ibid., p. 320, and p. 325f.
- 55 Ibid., p. 323f.
- 56 Ibid., p. 329f.
- 57 Ibid., p. 330.
- 58 Ibid., p. 333-4.
- 59 Ibid., p. 337.
- 60 Ibid., p. 338.
- 61 Ibid., p. 339.
- 62 Ibid., p. 344.
- 63 Ibid., p. 345.
- 64 Ibid., p. 346f.
- 65 Ibid., p. 355.
- 66 Ibid., p. 356.
- 67 Ibid., p. 363.
- 68 Ibid., p. 364.
- 69 Ibid., p. 365.
- 70 Ibid., p. 366.
- 71 Ibid., p. 367.
- 72 Ibid., p. 369.
- 73 Hagberg, Linnaeus, p. 191, from Linnaeus' Oeconomia Naturae.

- 74 Paley, Natural Theology, p. 368.
- 75 Ibid., p. 369.
- 76 Ibid., p. 370.
- 77 Ibid., p. 371.
- 78 Ibid., p. 372.
- 79 Ibid., p. 375-6. Cf. Tuveson, Millenium, p. 147f. on Paley's being responsible for the re-issue of E. Law's book of 1745, Considerations of the Theory of Religion. Tuveson suggests that in Law's book is found a certain "metaphysics of competition" - "This amiable contest, and perpetual struggle, must certainly make more for the good of the whole, than if all had been passive, and absolutely fixed in any degree of knowledge and perfection; or limited unalterably in any state."
- 80 Paley, Natural Theology, p. 377.
- 81 Ibid., p. 385.
- 82 Ibid., p. 386-7.
- 83 Ibid., p. 387-8.
- 84 William Paley, A Short Memoir of the life of Edmund Law D.D., London, 1800.
- 85 Clarke, Paley, pp. 55-6. Cf. Natural Theology, p. 389f.
- 86 Clarke, Paley, p. 87.
- 87 Paley, Natural Theology, p. 393.
- 88 Ibid., p. 394.
- 89 Ibid., p. 395.
- 90 Ibid., p. 396.
- 91 Ibid., p. 400-1.
- 92 Ibid., p. 408f.
- 93 Ibid., p. 410.
- 94 Ibid., p. 411-12.
- 95 Ibid., p. 420-1.
- 96 Ibid., p. 422.
- 97 Ibid., p. 423. Cf. McPherson, Design, p. 12f; p. 72.

D. Coleridge

Coleridge's search for a theology engaged him in an examination of the work of Hume and some of his successors, and drove him to look at German theology. It is especially true in his case, that to look at what he said about theodicy and nature is to discern only one thread of his extraordinarily diverse interests. Coleridge seems to have wanted to find a way of talking about religion which was intellectually respectable. Though he had little to say that was constructive on the particular topic of a theology, and a theodicy in particular, related to nature, he was important for his attention to the work of the great German theologians, and for whatever he did to alert others to their work. And he stands on the brink of the era when the changes in people's view of things would have to be made.

What Coleridge had learned since 1801 when he began to study philosophy seriously ¹ may be found in his public lectures, his published works, his letters to his friends and in his notebooks. (No attempt is made in this study to look at his poetry.) One has always to bear in mind both Coleridge's versatility and range of capabilities and the other projects on which he worked from time to time, the problems he had with his health, and his life-long struggle with "indolence".² Both correspondence and notebooks refer to projects which rarely materialised. Also, whilst Coleridge must be given some credit for alerting the English to the work of Kant in particular, his own reaction to that work is sometimes difficult to assess. The same must be said

of his concern with the work of Leibniz. He spotted the central problems of the great philosophers, but his own reaction to them is often disappointing. One interpretation of this problem has been given by W.J. Bate:³

The overriding philosophical interest of Coleridge, from the time he became a disciple of David Hartley at Cambridge until the end, was in unity of interpretation, unity of feeling, unity of relationship of every sort, but with no sacrifice of the claims of diversity He goes from one side of the path to the other ... from the empirical and scientific to the spiritual and idealistic, then back again, with further insights, in the hope of finding a more capacious frame of reference.

Be that as it may, one finds that in 1818 Coleridge was depressed by the prospect of having to lecture in public, though he acknowledged⁴ that "lecturing is the only means by which I can enable myself to go on at all with the great philosophical work to which the best and most genial hours of the last twenty years of my life have been devoted. Poetry is out of the question. The attempt would only hurry me into that sphere of acute feelings, from which abstruse research, the mother of self-oblivion, presents an asylum." Coleridge's lectures⁵ on philosophy of 1819 were taken down in shorthand but he never brought them out in print despite his recognition of the desirability of having such a work available to the public, as it could contain more than his audience had heard.⁶ So only the "prospectus"⁷ of the lectures would be briefly available. The lectures were attended by an audience which included William Hamilton. K. Coburn made the comment that Hamilton learned from Coleridge the importance of precision in language,⁸ and Hamilton's own statement of the point was used by J.S. Mill as a motto for the first book of his Logic.⁹ Coburn also drew attention

to the importance and novelty of lectures of this kind:¹⁰

The historical consideration of philosophers in public lectures was in itself something of an innovation. True, English philosophy and philosophers had been dealt with by Hazlitt in a course of Lectures in 1812. But had anyone in England in Coleridge's lifetime had the temerity to give a course of public (not university) lectures on the ancient, mediaeval and modern philosophers? Is it safe to suggest that perhaps half the names he mentioned were heard of by half the audience for the first time?

There had in fact been lectures on the philosophy of Kant given in London, which will be discussed when attention is turned to Coleridge's interest in Kant. But there was one history of philosophy available which Coleridge's audience could have read. William Enfield had in 1791¹¹ produced his History, drawn from the work of Bruckner. Despite its shortcomings, Enfield seems to have seen the problem facing contemporary philosophers rather as Kant saw it, though without mentioning him by name. So he wrote¹² in his "preface", that man's attention to the great questions of the origins of things, the nature of God, of the soul, of morals, were to be approached with caution and diffidence in view of the great variety of discussion there had been about them:

Perhaps, too, men's researches into these subjects, have now been carried to such extent, and every argument upon them has been so thoroughly discussed, that it may be possible to determine, with sufficient precision, how far it is possible for the human faculties to proceed in the investigation of truth, and why it can proceed no further. Possibly the time may not be far distant, when an end will be put to fruitless controversy, by distinctly ascertaining the limits of the human understanding. If this desirable point be ever attained, it is obvious that one of the means of accomplishing it must be, an accurate attention to the manner in which different sects in philosophy and religion have, from time to time, arisen, and to the various causes of diversity of opinion.

It is not evident from his text that Enfield himself was up to this task, but he performed a useful service in drawing attention to certain

subject areas and the names of philosophers concerned with them. For example, when writing "Of the philosophy of the Persians",¹³ which included a description of Zoroaster and of what he had to say about the origin of evil, he provided footnote references to Bayle's Dictionary articles relevant to the subject, and to Leibniz' Theodicy, in one of its French editions. Of the Dictionary itself, he wrote¹⁴ of it in the course of his outline history of Bayle's life and works, that it was "the chief monument of his learning, genius, and wit, and an indisputable proof of his propensity towards scepticism." Enfield made it clear with reference to Bayle's discussion of "evil" that he regarded the tradition which Bayle represented with distaste. Bayle's writings, he maintained,¹⁵

betray a mind impressed with little sympathy for religion and tend to foster that kind of scepticism which is most pernicious. Upon a comparison of the writings of modern sceptics, it will appear, that they have adapted this method of philosophising upon very different grounds, and for very different purposes: but in whatever form scepticism appears, or from whatever cause it springs, it may be confidently pronounced hostile to true philosophy; for its obvious tendency is to invalidate every principle of human knowledge, to destroy every criterion of truth, and to undermine the foundations of all science, human and divine.

One may suppose that Enfield was also making clear his view of Hume and any who took his views seriously. Leibniz¹⁶ was given a whole chapter to himself in Enfield's work, and the latter listed a number of Leibniz' minor papers of which Bruckner had been aware, as well as referring to the Theodicy and Leibniz' correspondence with Clarke. Enfield praised Leibniz whilst listing as his major fault his "fondness for the conjectural method of philosophising, and the facility with which he admitted hypotheses unsupported by induction and experiment."¹⁷ In his summary of Leibniz' philosophy he wrote of Leibniz' deity that he

is "always determined in his choice by sufficient reason; and this can only be found in the degrees of perfection of possible worlds. His wisdom knows, his goodness chuses, and his power produces the best possible world."¹⁸

Coleridge's reading of Enfield probably provided him with some useful directions¹⁹ in which to search up to the beginning of the eighteenth century, which was all that Enfield had set out to cover, but Coleridge made a criticism²⁰ of Enfield indicating a fault which he himself in his lectures intended to correct. Enfield's work needed methodical criticism, in the sense that although it was good to approach the relevant material historically, careful attention also needed to be given to the changes in philosophical thinking, and to explanation of those changes - which was to say no more than Enfield himself had said in his "Preface".

But Coleridge did have something more constructive to offer: "Few and unimportant would the errors of men be, if they did but know, first what they themselves mean: and secondly, what the words mean by which they attempt to convey their meaning - and I can conceive no subject so well fitted to exemplify the mode and the importance of these two points as the History of Philosophy treated as in the scheme of these Lectures."²¹ In 1820 he wrote that "I, herein imitating Leibnitz, have been in the habit of considering what the meaning of the words rightly & scripturally defined, might be ..."²² However, despite this promising programme, attention to his letters and notebooks reveals how very limited the

lectures were in indicating the scope of Coleridge's concerns, especially in view of his long interest in philosophy. This is also true of some of his prose works, especially the Biographia Literaria²³ of 1817, originally devised as a preface to a new edition of his poems;²⁴ and the Aids to Reflection begun in 1825.²⁵ Also important for this study is his Hints towards the formation of a more comprehensive theory of Life.²⁶ This latter work was begun²⁷ in 1816 for his surgeon friend Gilman, perhaps to supersede Erasmus Darwin's philosophical works for the benefit of the medical profession, but it was not published until 1848, under the editorship of another physician who had become a friend of Coleridge's.²⁸ So one finds in the various Coleridgean sources that there is available a wealth of evidence which indicated the possibility of a new approach by means of which crucial theological beliefs could be related to nature. Yet although Coleridge rejected some philosophical points of view he never on the other hand seems to have assimilated from either Leibniz or Kant in particular a method which would have enabled him to make more than a minimal contribution to thinking about these particular issues. Part of the reason for this may be that he lacked the ability to do so - the great "opus" he planned never materialised. His "indolence", perhaps based in his ill-health, may have had something to do with it - yet he did find the energy to pick up a variety of nature-philosophy which was to prove as fruitless to refute Paley, as to point a new direction for study. It may be that he realised that he could not cope with this kind of programme, and also, that it was not the kind of theological thinking that he most needed.

Hume was the arch-enemy of religion for Coleridge,²⁹ and it is to the latter's credit that he spotted that the answer to Hume was not to be found in the school of "evidence" writers, however brilliant some of them might be. So for example, Coleridge wrote to a friend in 1798:³⁰

Have you given over the thoughts of editing Butler's analogy³¹ with notes? - If the Unitarian Society would publish it in their tracts, I would willingly & immediately undertake it with you - adding a disquisition on Hume's system of Causation - or rather of non-causation. This is the pillar, & confessedly, the sole pillar, of modern Atheism - if we could clearly and manifestly detect the sophisms of this system, I think, that Butler's Analogy aided by well placed notes would answer irresistably all the objections to Christianity founded on a priori reasonings - & these are the only reasonings that infidels³² use even with plausibility.

By "a priori reasonings" it is clear that Coleridge meant Hume's discussion of the cause-effect problem. To someone for whom "true metaphysics are nothing else but true divinity" Hume's tenets were indeed "impious and pernicious".³³ Coleridge pointed out in his philosophical lectures,³⁴ paraphrasing Kant's comment in his Prolegomena, how important it was to grasp the point of what Hume had said. Coleridge himself had for a long time been alert to the importance of the principle of causality for theology, irrespective of Hume's particular formulation of the problem. In Coleridge's "allegoric vision" in his Bristol lectures³⁵ of 1795 he talked of "an old dim eyed Man" studying nature. The old man was continually applying his microscope to the study of nature "and seemed greatly delighted in counting the Irregularities which were made visible by it ... " Coleridge said of him:

He spoke in diverse Tongues and unfolded many Mysteries, and among other strange Things he talked much about an infinite

Series of Causes - which he explained to be - a string of blind men of which the last caught hold of the skirt of the one before him, he of the next, and so on till they were all out of sight; and that they all walked straight without making one false step.

To the enquiry about who was at the head to guide them, the man replied, "No one, but that the string of blind men went on for ever without a beginning for though one blind man could not move without stumbling, yet that infinite Blindness supplies the want of sight."³⁶

The same illustration re-appears in the Biographia Literaria and in one of the Lay Sermons.³⁷ One may note here that it is in Coleridge's earliest writings and letters, that one finds themes of interest which are expressed in much the same way years later, though sometimes in a different kind of context. On the subject of Hume, he had decided on his view of him long before the philosophical lectures were given, not only because of the importance to Coleridge of the principle of causality as it needed to be interpreted to be of service to his theology, but also, one must presume, as a result of his reading of the Dialogues themselves. In 1799 he wrote:

It is fashionable among our philosophizers to assert the existence of a surplus of misery in the world/which in my opinion is no proof, that either systematic Thinking or unaffected Self-observation is fashionable among them. - But Hume wrote - and the French imitated him - and we the French - and the French us - and so philosophisms fly to and fro - in series of imitated Imitations - Shadows of shadows of shadows of a farthing Candle placed between two Looking-glasses. ³⁸

Coleridge was also acutely aware of the influence of some of the post-Humean philosophers of his day, and held them in the same contempt and dislike. He had read Malthus' first Essay before he left England for Germany, and found the work "exceedingly illogical".³⁹ He himself

could not support any theory which proposed that vice and misery were intended by Providence as the counterpose to the increase in population. Then he found in Germany how popular Stüssmilch's work had remained. Although this author also had disliked the kind of theory objected to by Coleridge, the latter was not satisfied, he said, with a confutation which was somewhat simply based on the idea that since the theory "militated against the Glory & Goodness of God"⁴⁰ it must therefore be false. Coleridge still hoped for the possibility of another kind of reply which would include a different interpretation of population studies. And on his return to England in 1800 he found himself dedicating two mornings and one whole day a week to a project of his own, "on the possible Progressiveness of Man & on the principles of Population",⁴¹ so he clearly thought an important issue was at stake. When Malthus' second essay was published he thought that a summary of what Malthus had to say "would make a sensible first sentence of an Essay in a Newspaper on the subject of population"⁴² but nothing more. His own comments on Malthus' second essay seem to be of little interest, even to an historian of economic thought,⁴³ though Southey seems to have used them for his own review of the work.⁴⁴ Malthus became fixed in Coleridge's mind as a much-loathed "oracle",⁴⁵ in the popular estimation.

So far as Erasmus Darwin was concerned, Coleridge did not initially think that he was one of those, together with Malthus and Hume, who were likely to destroy the spiritual values of England.⁴⁶ He credited him with some virtues,⁴⁷ and even as late as 1803 could still think

of him as having some ability as a poet.⁴⁸ But from 1796 onwards he clearly disliked Darwin for his carelessness about religion, for all that he was so knowledgeable and inventive on other subjects.⁴⁹ This was the more irritating in that he knew that Darwin had been impressed by a note in Hutton's introduction to his Theory of the Earth which had stressed the importance of finding appropriate principles of explanation for each area of discussion.⁵⁰ So he remarked that Darwin seemed to be typical of those infidels who "talk of a subject infinitely important, yet are proud to confess themselves profoundly ignorant of it." He continued: "Dr. Darwin would have been ashamed to have rejected Hutton's theory of the earth without having minutely examined it; yet what is it to us how the earth was made, a thing impossible to be known, and useless if known?"⁵¹ He there voiced, perhaps, the view of those who could not see that new developments in science were likely to make any difference to their theological thinking, and who for that very reason, would be ignored by those who did. Darwin was "an atheist by intuition", who all at once had made up his mind on such important subjects "as whether we be the outcasts of a blind idiot called Nature, or the children of an all-wise and infinitely good God; whether we spend a few miserable years on this earth, and then sink into a clod of the valley, or only endure the anxieties of mortal life in order to fit us for the enjoyment of immortal happiness." Anyone who shared what seemed to be Hume's views as exhibited in the Dialogues was one of Coleridge's targets for criticism. But it may also be the case that Coleridge had some scathing comments to make about Darwin in his own lectures⁵² on philosophy, because he remembered Darwin's telling him

that he would like to know a young man who had a metaphysical turn of mind and who would read up on the opinions of philosophers and give Darwin a syllabus of their views. He had no wish to provide Darwin with more justification for his "ignorance". Another remark of 1790 is important to bear in mind for the future development of Coleridge's thought. He said: "A Physician who should be even a Theist, still more a Christian, would be a rarity indeed. I do not know one and I know a great many Physicians. They are shallow Animals: having always employed their minds about Body and Gut, they imagine that in the whole system of things there is nothing but Gut and Body ..."⁵³ And a month later, he wrote that "true or false, Heaven is a less gloomy idea than Annihilation! - Dr. Beddoes and Dr. Darwin think that Life is utterly inexplicable, writing as Materialists."⁵⁴ Coleridge, as the rest of this letter showed, was already toying with definitions of "life". So he was beginning to form the arguments he would employ in his lectures and his Theory of Life, and would disagree with anyone who proposed that mind was merely a function of structure. Concerning "nature" he asked: "Is it here that she begins to deceive us when she bids us believe that ours is a mixed nature, belonging in part to the earth, and like it transient, but belonging like our reason and like its magnificent products, the sciences, to a higher and more permanent state of existence?"⁵⁵

William Lawrence⁵⁶ was to represent in public life the physiological understanding of "function" by the time Coleridge was giving his lectures. Lawrence had himself given a set of lectures bearing on the subject before the Royal College of Surgeons. Lawrence had represented more in

those lectures than that view alone, however. When he published his material in 1819 as Lectures on Physiology, Zoology and the Natural History of Man, he thereby precipitated a controversy of no mean proportions.⁵⁷ He eventually withdrew this work from circulation, though enjoyed public acclaim later in his life for his work as a surgeon. Darlington⁵⁸ supposed that part of the problem Lawrence created for himself, given the accusation that his work contradicted the "plain sense" of scripture, lay in the way he presented his material - he quoted his predecessors as supporting authorities and did not hesitate to point out to the society of his day the implications of what he was saying. If he was right about "selection" it might well be possible to "improve" men by "breeding". What Lawrence was doing, as T.H. Huxley⁵⁹ writing in 1894 saw so clearly, was discussing in public "the position of the human species in zoological classification". He cited his friend Sir William Lawrence, as one of those who had been "well-nigh ostracised for his book On Man, which now might be read in a Sunday school without surprising anybody." Coleridge, however, had no favourable opinion of those who proposed that the human race developed from a race of monkeys.⁶⁰ It reminded him of the story of a French lady, who heard of a dead man who had walked a league with his head under his arm. She then overheard someone else say, "What! a league!" in a tone of surprise. "Aye!" said the lady, "the first step was the thing."⁶¹

Coleridge's search for an alternative way of talking about life, and the kind of approach he therefore developed was to a limited degree

only displayed in one of the philosophical lectures, though indications of his approach appeared elsewhere,⁶² and it was discussed with his select group of pupils,⁶³ and in correspondence with his friends. In the lectures, a unique opportunity to air any views of which he was really confident, Coleridge made little of his ideas, perhaps because he still believed that he would one day complete a great work in which his theology and philosophy of nature could be united and displayed in all their detail. So what he had to offer in public at this stage would have little impact compared for instance with the succession of comments on Lawrence's works produced by his clerical detractors.

Paley, like Hume, Darwin and Malthus was also rejected by Coleridge as a contemporary "authority" on the meaning of life. Paley was not controversial, like Malthus, nor in some respects discredited, like Darwin, and those who knew about Hume may have thought that Paley had replied to his criticisms satisfactorily. It was difficult, to say the least, to criticise Paley without having a worked out and publishable alternative to offer. Aids provided some of the answers,⁶⁴ in terms of seeing that "evidence" might mean little without "doctrine", but even as late as 1827⁶⁵ Coleridge was still struggling with some undefined issues of what he referred to as the philosophy and history of Christianity. His own initial problem with Paley was that he represented the kind of theology to which Coleridge had himself once been committed, as in his theological lectures in Bristol in 1795, and long found attractive.⁶⁶ Yet 1796 found him already planning a work⁶⁷ which would include "strictures on Godwin, Paley, &c, &c" and in 1803 he wrote

that he could produce "a dashing Review" of the Natural Theology.⁶⁸

The real point for Coleridge was his horror of what he called the disease of his "discussing, calculating, prudential age", and its blindness to the nature and importance of principles",⁶⁹ which he planned to discuss in the Friend.⁷⁰ Paley, with Hume, "had increased the number of infidels"⁷¹ because they had not taught people "to value actions primarily as the language & natural effect of the state of the agent."⁷² Men should consider "what they are instead of merely what they do; so that the fig-tree may bring forth its own fruit from its own living principle, and not have the figs tied on to its barren sprays by the hand of outward Prudence & Respect of Character." The influence of Paley could never have been so pervasive "if thinking men had been habitually led to look into their own souls, instead of always looking out, both of themselves, and of their nature."⁷³ By 1806 when this remark was written Coleridge was already well read in some of the work of Kant, and some information about the initial attraction of Kant for Coleridge may be reflected in the remark. On the Natural Theology itself, he did see how Hume's comments about the adequacy of human reason to produce a proof of God could be turned against Paley. So in his philosophical lectures⁷⁴ he referred to Hume's "theological spider".⁷⁵ Ms. Coburn's notes⁷⁶ on the lecture show that Coleridge had annotated his copy of Tenneman's History of Philosophy⁷⁷ to make the point that in terms of Paley's logic, "Spiders would conclude, that Houses &c were spun out of Men's Bellies ..." So he commented:

What if a man should assert that Mills were made by Corn-grinding, and shortly after declare that both the Grinding and the Ground Corn

were the proper and Immediate Effects or Results of the Mills? And yet Paley in his Natural Theology, first, assumes Intelligence (meaning the power and exercise of Understanding) as the Cause of Organization - and shortly after, states Organization as the Cause of Understanding - i.e. that Understanding or Intelligence is the Property or Result of its own Effects. The Grandfather being his own Grandchild!

In his theological criticism of Paley one may also see where he could derive support from his reading, for example, of Kant's work of 1764, the Enquiry concerning the clarity of the principles of natural theology and Ethics, in its emphasis on the divine omnipresence.⁷⁸ Coleridge wrote in 1817: "What indeed but the wages of Death can be expected from a Doctrine which degrades the Deity into a blank Hypothesis, and that the Hypothesis of a clock-work-maker ..." The result, for Coleridge, was "a Godless Nature and a Natureless abstract God, now an extramundane homo magus, from whom the world had its being ..." ⁷⁹ What he for his part wanted was "to demonstrate the hollowness and falsehood of the Corpuscular Theory and of every other scheme of Philosophy which commences with matter as a jam datum, or under any disguise substitutes the Lockian, and Newtonian - From God we had our Being - for the Pauline - In whom we move and live and have our Being."⁸⁰ So in his Biographia he commented on "the mechanical system of philosophy which has needlessly infected our theological opinions, and teaching us to consider the world in its relation to God, as of a building to its mason, leaves the idea of omnipresence a mere abstract notion in the state-room of our reason."⁸¹

Hume was rejected by Coleridge on the issues of the role of reason in belief, and for his pessimism. Malthus and Erasmus Darwin also seemed to lack confidence in the divine goodness, though both proposed, in

their different ways, a kind of speculative theism, related to the "evidence" as they saw it. Paley at least attempted to offer a God who could be worshipped, and it was to him in particular that Coleridge seems to have been unjust - and he could have pressed Paley into service against both Malthus and Darwin. Coleridge also professed an interest in science, though his interests were more wide-ranging than Paley's, but Paley distinguished carefully between what was useful to his kind of argument and what was not. Coleridge made almost every scrap of information available to him serve his purposes, and he could have learned something from Paley here. Paley's strength seemed to lie not only in the attention he gave to the sciences which told him about "structure" in relation to the specific contexts in which those structures were to be found, but also in the way in which he did from time to time in the Natural Theology try to take account of what might constitute evidence against the goodness of God. Further, it was an unfair reading of Paley to suppose that all he had to say about the relationship of God to the world had been said by means of the watch-watchmaker illustration, or for that matter, that of the eye. He had tried to say something about the divine omnipresence by emphasising the careful attention given by God to every creature. On the other hand, Paley did not express his understanding of God's relationship to the world by the use of anything resembling the "metaphysical" vocabulary which Coleridge borrowed from his contemporaries in Germany. It may be that it is in this connection that one may discern Coleridge's continuing problem with Paley, especially if Coleridge had noted Paley's comments about the kind of person who would not rest content with design theology but who must restlessly search for apparently novel ways of arriving at the same

objective - the cure for atheism. A metaphysical-theological view of nature would have to be worked out in the most convincing detail if it were to supercede Paley's view of things. In so far as Paley was appealing to "good sense" and to readily describable and comprehensible facts, it would perhaps be easier to re-present those facts than to embark on metaphysical abstraction from them. Coleridge knew, even if Paley did not, how strange some of the distinctively Leibnizian features of metaphysics seemed to anyone other than Leibniz. And he may have realized that Leibniz' public reputation during his lifetime did not depend upon works of metaphysics, but upon a work which kept metaphysics in the background. Coleridge may have thought he could say the right things about God and the right things about nature, and succeed where a great predecessor had been too cautious to succeed. As it happened, Paley had pointed out the difficulties, and he could not prove Paley wrong. Coleridge could not find God as a result of his discussion of nature, and he could not write anything as effective as the Natural Theology. It was either to be Paley's theory of nature, or none at all, or a theology hardly worth the name, as re-presented by Erasmus Darwin's grandson.

We may now turn to Coleridge's search for alternatives, in his *readings* of the great German philosophers. What one finds is plenty of evidence of his breadth of reading, and equally, evidence of his incapacity to grasp and operate with the distinctively Kantian contribution to a method of approach to God and nature. It might be said that in fact he changed his own views remarkably little as a result of his reading,

and his own contributions to theology, as in Aids, for example, were not derived from the Germans, though illustrated by material culled from their work, but from his own genius brought to bear on his reading of scripture and the great "divines" of his own English tradition.⁸² We begin with Coleridge's theological lectures of 1795 of which S.K. Barth wrote:⁸³ "Not surprisingly, it is the problem of evil which affords Coleridge his entrée into the political and social ramifications of revealed religion." The production of the lectures perhaps provided him with his first opportunity to sort out his view of the problem. In 1794 he replied to a friend: "Your remark of the Physical Evil in the long Infancy of men would indeed puzzle a Pangloss - puzzle him to account for the wish of a benevolent heart like your's to discover malignancy in its Creator".⁸⁴ And, "I would ardently, that you were a Nécessitarian ^{and} (believing in an all-loving Omnipotence) an Optimist."⁸⁵ He meant by "optimist" - "by having no will but the will of Heaven, ... we call in Omnipotence to fight our battles!"⁸⁶ The lectures of 1795 raised and dismissed all notions of deity other than those of a single and all-loving omnipotence:

By Deity we mean a creative or at least an organizing Intelligence. This Deity is either indifferent or malignant or benevolent or a mixture of both. An indifferent Deity is a contradiction in terms, or rather another word for No Deity. He that created must have created with some view or other. A malignant Deity the experience of all our senses shows to be an Absurdity - he must be therefore either benevolent or a mixture of the two Principles - If these two principles are unequally met in all powerful Beings, the strongest must overpower the weaker. Deity would therefore become either totally one or totally the other. But if equally met he could not act at all. Nothing therefore remains but the hypothesis of total Benevolence.⁸⁷

With this as his basis, he went on to develop a view of pain as the stimulus to the removal of moral evil.⁸⁸ Yet the contemplation of nature

seems also in his view to be effective to this end.⁸⁹

Almost all the physical Evil in the World depends on the existence of moral Evil - and the long-continued contemplation of the latter does not tend to meliorate the human heart. - The pleasures, which we receive from rural beauties, are of little Consequence compared with the Moral Effect of these pleasures - beholding constantly the Best possible we at last become ourselves the best possible. In the country, all around us smile Good and Beauty - and the Images of this divine *καλὸν ἄγαθον* are miniaturized on the mind of the beholder, as a Landscape on a Convex Mirror.⁹⁰

So in the 1795 lectures he said he could weep for "the deadened and petrified Heart of that Man who could wander among the fields in a vernal Noon or summer Evening and doubt his Benevolence! The Omnipotent has unfolded to us the Volume of the World, that there we may read the Transcript of himself. In Earth or Air the meadow's purple stores, the Moons mild radiance, or the Virgins form Blooming with rosy smiles, we see pourtrayed the bright Impressions of the eternal Mind."⁹¹ Such a view of nature would understandably find the approach of the scientists at least irrelevant if not intolerable. In 1816-17 he wrote "... But God created a world or he expressed the infinite finitely - ... The Darkness of Gravity & the Splendor of Light, produce the lovely form, & awful Substance of Life ..."⁹² He wrote that inanimate nature was "fixt Life",⁹³ and in 1818, "The most pregnant historic Symbol on Earth is a Coral Bank on a Stratum of Coal - or rather a quarry of veined Marble on a coal stratum."⁹⁴ All was to be seen in relation to the divine creator's activity. "... the Diamond, thick, and hard, yet transmits all Light & retains for itself the light of the God of Day ... Ideas in man to the signatures of God, or the Ideas in Nature, as the Eye to its objects - known only by the coincidence of vision and reflection".⁹⁵

1796 found him considering the production of an epic poem on the Origin of Evil⁹⁶ - the Ancient Mariner. Bate wrote⁹⁷ of the way in which the subject had been eluding and intriguing Coleridge for months:

For if we postulate a universe pervaded by 'one life', then - as in monistic and pantheistic religions generally - we seem confined to one of two choices in an attempt to understand evil, neither one of which satisfies both the mind and the heart. That is, we must either admit evil as an inevitable part of the fabric and thus qualify our conception of a benevolent God, or else we are encouraged to explain it away as something other than 'evil' (i.e. as something not so bad after all). No one knew this better than Coleridge himself, and as the years passed he was to grow even less satisfied with either of these alternatives.

Just as Coleridge had launched himself into dealing with these and other theological topics, the opportunity presented itself for him to travel in Germany in 1798. Most of the attention given to this journey by writers on Coleridge focusses on his discovery of Kant, but given his existing concern with the problem of evil and his view of nature, it is also profitable to take notice of his discovery of Leibniz. Leibniz was the writer of the Theodicy as Coleridge no doubt already knew. It may be that he now discovered him as a metaphysician, and that it was the work of Leibniz and his non-Kantian followers which was ultimately at least as important to Coleridge as the work of Kant himself. At any rate, it may be not without significance if one were to find that it was the work of Kant before 1771 which Coleridge attempted to take seriously, rather than the work published after that date. It is only too easy to make the mistake of assuming that it is the "critical" Kant now valued by us which he found to be of help to him. If he had adopted Kant's "critical" standpoint, it would be difficult to make sense for example, of some of the passages from his notebooks already quoted. It may also be the case

that he could not cope with Leibniz either - but only with some of his less able successors, and these latter would properly have been the targets of the "critical" Kant.

Given Bate's description of "the overriding philosophical interest of Coleridge" which has already been quoted, one may perhaps postulate that Coleridge would have liked to have become the English Leibniz. He referred in the Biographia⁹⁸ to Leibniz' criterion of a true philosophy, that it would at once explain and collect the fragments of truth scattered through systems apparently unrelated to one another and proceeded to quote from one of Leibniz' works, though in his own translation. He also made this clear to himself in his notebooks. There Coleridge wrote⁹⁹ in 1810 that philosophy must

explain to us, and bring into distinct and harmonious conceptions all those feelings, ... convictions, & instincts vital or spiritual, which all men possess as men, which we cannot lose altogether without losing our human nature, or pretend to despise without introducing a discord & contradiction between the principles of Thought & those of Action, which ought to be in closest harmony - A genuine philosophy will manifest itself therefore by its perfect congruence in substance with the catholic creed of Human Nature - quod semper, quod ubique, quod ab omnibus - and by shewing the beauty and rationality of this creed, and thus elevating opinion into surety even where it is not susceptible of certainty ...

Also,¹⁰⁰ "the ultimate grounds of all must remain inexorable or men must cease to be progressive. Our Ignorance with all the intermediates of obscurity is the condition of our ever-increasing knowledge." Moreover, Coleridge wrote of his feelings on seeing a bust of Leibniz in Hanover in 1799¹⁰¹ in a way which finds no echo in his praise of Kant. The bust "impressed on my whole soul a sensation which has ennobled and enriched it! - It is the face of a God! & Leibnitz was almost more than a man in

the wonderful capaciousness of his Judgment & Imagination!" That he could share Leibniz' convictions was shown when he wrote home on the death of his child¹⁰² that he could not believe "in this moving stirring and harmonious universe" that the child's life had ceased. The "living God is every where, & works every where - and where is there room for Death?" He could not believe that God himself uses his own power vainly:

That like a child he builds palaces of mud and clay in the common road, and then he destroys them, as weary of his pastime, or leaves them to be trod under by the Hoof of Accident? - That God works by general laws are to me words without meaning or worse than meaningless - Ignorance and Imbecility, and Limitation must wish in generals - What and who are these horrible shadows necessity and general law, to which God himself must offer sacrifices - hecatombs of Sacrifices? I feel a deep conviction that these shadows exist not - they are only the dreams of reasoning Pride, that would find solutions for all difficulties without Faith! - that would make the discoveries which lie thick sown in the path of the eternal Future unnecessary; and so conceiting that there is sufficiency and completeness in the narrow present, weakens the presentiment of our wide and ever widening Immortality! - and God works in each for all - most true - but more comprehensively true is it, that he works in all for each.

(Precisely the same concern with "necessity and general law" reappear in Aids.¹⁰³)

More information about Coleridge's view of Leibniz is contained in a letter¹⁰⁴ which was drafted, but not actually despatched, and which survived among his papers. This is one of the letters which marked the period in 1801 when Coleridge began what he hoped would be a serious programme of philosophical study, and which was to lead to his philosophical lectures. Coleridge thought that the bitterness and contempt¹⁰⁵ with which Leibniz was treated "not only by Newton's Understrappers but by the whole English Literary Public" had not wholly subsided. Leibniz was thought

of as "a visionary & fantastic Fellow" and his notions of "Plenum, pre-established Harmony" had been misrepresented,¹⁰⁶ though Coleridge conceded that these concepts were "too repugnant to our common sense" and perhaps too strange to survive their inventor.¹⁰⁷ And ;¹⁰⁸

Voltaire in that jumble of Ignorance, Wickedness, & Folly, which with his usual Impudence he entitled a Philosophical Dictionary, made it epidemic with all the No-thinking Freethinkers throughout Europe, to consider Locke's Essay as a modest common sense System, which taught but little indeed - & yet taught all that could be known/& held it up in opposition to the dreams of the Philosophy of Leibniz, whose mortal sin in the Mind of Voltaire & his Journey-men was, not his monads,¹⁰⁹ but that intolerable Doctrine of the Theodicee, that the system of the Universe demanded not only the full acquiescence of the Judgement in its perfection, but likewise the deepest devotion of Love & Gratitude.

On a journey which included a stay at Durham, he found the Cathedral librarian completely ignorant even of Leibniz' name,¹¹⁰ but despite such evidence of a lack of interest on the part of his countrymen, Coleridge's interest in Leibniz and in the latter's understanding of the question of evil remained unabated:¹¹¹

To return to the Question of Evil - woe to the man, to whom it is an uninteresting Question - tho' many a mind, overwearied by it, may shun it with Dread/and here, N.B. scourge with deserved and lofty Scorn those Critics who laugh at the discussion of old Questions - ... The assertion that there is in the essence of the divine nature a necessity of omniform harmonious action, and that Order and System/not number - in itself base and disorderly and irrational - define the creative Energy, determine and employ it - and that number is subservient to order, regulated, organized, made beautiful and rational, an object both of Imag. and Intellect, by Order - this is no mere assertion it is ... strictly in harmony with the Fact, for the world appears so - and it is proved by whatever proves the Being of God - Indeed, it is involved in the Idea of God. -

In 1804 he was proposing to produce a work himself, entitled "Consolations and Comforts from the exercise and right application of the

Reason, the Imagination, and the moral Feelings, addressed especially to those in Sickness, Adversity, or Distress of mind, from speculative Gloom."¹¹² The first part of this work was to be practical and the second speculative, "& will contain a new Theodicee, & what will perhaps appear to many a new Basis of Morals".¹¹³ The struggle with this project clearly continued for years, without coming to a successful conclusion,¹¹⁴ at least in the sense that Coleridge did not produce a theodicy which was some kind of answer to the problem of physical evil. In fact he said himself¹¹⁵ that Aids provided neither a "positive" proof of the Trinity, nor a metaphysical examination of the origin of evil. Of this latter topic, and that of the creation of the visible world he remarked: "These as absolutely requiring the habit of abstraction, and severe Thinking, I have reserved for my larger work" - which never appeared. The passage in Aids which refers to the "origin of evil" may have been written under the influence of Coleridge's reading of Kant, and seems to represent a break with the theology of the Theodicy. Coleridge wrote:

The Origin of Evil, meanwhile, is a question interesting only to the Metaphysician, and in a system of moral and religious Philosophy. The Man of sober mind, who seeks for truths that possess a moral and practical interest, is content to be certain, first, that Evil must have had a beginning, since otherwise it must either be God, or a co-eternal and co-equal Rival of God; both impious notions, and the latter foolish to boot. 2dly, That it could not originate in God; for if so, it would be at once Evil and not Evil, or God would be at once God (that is, infinite Goodness) and not God - both alike impossible positions. Instead therefore of troubling himself with this barren controversy, he more profitably turns his inquiries to that Evil which most concerns himself, and of which he may find the origin.¹¹⁶

Coleridge here seems to have spotted the "manichean" character of what Leibniz had said about God. He does not refer his reader to at least one relevant essay of Kant's, (on the failure of Leibniz' kind of attempt to justify God) which had been available in English for some

years, and which Coleridge had read, either in translation or in the original, as we shall see later.

On the other hand Coleridge had found that "leibnizian"-style metaphysics cohered best with his own fundamental assumptions,¹¹⁷ and he was prepared to make use of it. (It was when he turned from metaphysics to "biblical" theology that he found Kant's work helpful in some respects.¹¹⁸) Although it seems that Coleridge turned to some of Kant's successors for his "nature-philosophy", rather than grapple with their Leibnizian sources, there are brief indications of his knowledge of Leibniz' work here and there,¹¹⁹ providing information that Coleridge was well aware of the Leibnizian notion of "entelechy and of the lex continui".¹²⁰ Perhaps the clearest example of the way in which he employed Leibnizian vocabulary outside a work intended for publication is in the letter of 1817¹²¹ already quoted for its criticism of Paley:

For it is not of a dead machine that I speak; but I am endeavouring to trace the Genesis, the ~~Physis~~, the *Natura rerum*, the Birth of Things: and this under the disadvantage of beginning (as far as the mere science is concerned) with the lowest, per ascensum: whereas the only true point of view is that of Religion, namely, per descensum. Observe too, that the two great poles of manifestation are Continuity (Lex Continui) and Individuation - the latter being the final cause of nature, or her object, from the Coral which is almost confounded with Nature to the Man of Genius and genial Goodness, the maximum of Individuation in the present Life; yet so as that the whole process is cyclical tho' progressive, and the Man separates from Nature only that Nature may be found again in a higher dignity in the Man. For as the Ideal is realized in Nature, so is the Real idealized in man.

However, although such a passage employs Leibnizian concepts Coleridge fought shy of any extensive discussion of Leibniz in public,¹²² whether in his philosophical lectures or in the Biographia.¹²³ Coleridge was aware

of the work of Oken (a disciple of Schelling) and Cuvier for example,¹²⁴ and he may have thought that since he was confronted with facts unknown to Leibniz, he ought to look for help to his own contemporaries. One of his most important sources was the work of Schelling himself.¹²⁵ In 1816, about the time he was thinking about his Theory of Life, Coleridge seems still to have admired¹²⁶ the latter as one of those who, with Kant, had treated natural history, comparative anatomy and chemistry in terms of a new system. On the other hand by 1817 he admitted that he suspected that Schelling might not always be in earnest in what he wrote,¹²⁷ and by 1818 he was writing¹²⁸ severely of Schelling's work. Hence he was increasingly critical of the metaphysical material of his own Biographia.¹²⁹ The point seems to be that whilst evidence abounds as to Coleridge's interest in the science of his day, his inevitable reaction to it was to proceed with an exercise in metaphysical abstraction¹³⁰ despite his problem about its coherence with his biblical theology. So for example in one of his notebooks he wrote:¹³¹ "If we assume, as all the facts accumulated by the genius and industry of the constellation of great Minds, who with John Hunter as their Morning Star, have founded the science of Comparative Anatomy & Physiology, authorize us to assume, a graduated scale of ascent from the minimum of consciousness ... up to the highest imaginable perfection of consciousness that can exist in a Creature ..."

Such a technique could accommodate most new "facts", it seemed, though with one important exception, as we have seen - the suggestion that man was "the last metamorphosis, the gay Image, of some lucky species of Ape or Baboon".¹³² Against Darwin, and priding himself on his having

arrived at his point of view without experiment¹³³ Coleridge proposed that "the harmony between the vegetable and animal world, was not a harmony of resemblance, but of contrast; and that their relation to each other was that of corresponding opposites." Given this principle, he could safeguard the special status he wished to accord to man whatever other concessions he might make to "evolutionary" thinking. This presumably meant that his medical friends might find his Theory of Life of much less use to them than the work of Lawrence. Unless they had received a letter from him, his friends would not be aware of Coleridge's sources, since he did not in his works, explain what they were, nor did he acknowledge the direct quotations he made from them. Bate proposed¹³⁴ the thesis that Coleridge was embarrassed by his dabblings in the philosophy of "organicism", in that he could not find a way of reconciling this "philosophy" with his developing understanding of Christian orthodoxy. "As he sought to assemble his ideas, his old habit of vicariousness, of serving as usher for what he could not feel completely free to advance himself, reasserted itself more strongly, though now in a distorted, almost somnambulistic way. He instinctively reached out for another to take his place, as if to say to his inner censor that it was not he but Schelling, or someone else he happened to be reading, who was speaking thus ... " There is some truth in this, though it does not quite explain the manner of presentation of the speculative passages in the Biographia, nor the absence in the philosophical lectures of a full discussion of these German contemporaries of whom he was so aware. It may rather be that he wanted to conceal the sources of his apparent originality. And he may have misdirected his reader's attention

to a philosopher such as Kant who was important for some points of Coleridge's theology, but who would not have regarded with approval, at least in his post-critical period, Coleridge's particular variety of speculation.

One may now ask the question as to what, if anything, is contained that is of any special significance for the purposes of this study, in the Theory of Life. Coleridge was, after all, immensely proud of it :

I cherish, I must confess, a pet system, a bye blow of my own Philosophizing; but it is so unlike to all the opinions and modes of reasoning grounded on the atomic, Corpuscular and mechanic Philosophy, which is alone tolerated in the present day, and which since the time of Newton has been universally taken as synonymous with Philosophy itself - that I must content myself with caressing the heretical Brat in private - under the name of the Zoödynamic Method - or the Doctrine of Life.¹³⁵

Coleridge may in fact have been trying to overcome what Farrer described¹³⁶ as the bifurcation that had taken place in the seventeenth century between science and sense, by refusing, like Leibniz and some of his successors, "to identify the real nature of things with what either sort of description appeared to describe". He wanted to find for himself "that wonderful concordance of man with the world surrounding him" about which Leibniz in his own way had been so eloquent. For Coleridge, metaphysics therefore "is a genus generalissimum, comprizing all evidence transcending that of Sense - or rather the Sciences that have this for their object".¹³⁸ He wanted in the Theory of Life not merely to explain life but to account for it,¹³⁹ and by this he meant stating something prior to nature as its ground or cause, "and to this, in the question of Life, I know no possible answer, but GOD. To account for a thing is to see into the principle of its possibility, and from that principle to evolve its being." This

also appears in Aids where he wrote:¹⁴⁰ "The moment we assume an Origin in Nature, a true Beginning, and actual First - that moment we rise above Nature, and are compelled to assume a supernatural Power. (Gen. l.v.l.)" When he turned to explanation of nature,¹⁴¹ he understood that explanation to "consist in the reduction of the idea of Life to this simplest and most comprehensive form or mode of action; that is, to some characteristic instinct or tendency, evident in all its manifestations, and involved in the idea itself." On the assumption that this could be done, "it will be required to present an ascending series of corresponding phenomena as involved in, preceeding from, and so far therefore explained by, the supposition of its progressive intensity and of the gradual enlargement of its sphere". So Nature in Aids is defined¹⁴² as "A Power subject to the Law of Continuity (Lex Continui. In Natura non datur Saltus.)" And further, "Nature is a Line in constant and continuous evolution. Its beginning is lost in the Super-natural: and for our understanding, therefore, it must appear as a continuous line without beginning or end." The explanation would be even more perfect, he wrote,¹⁴³ "should the necessity of this progression and of these ascending gradations be contained in the assumed idea of life". Then the explanation would "only" have to add "the conditions common to all its phenomena, and those appropriate to each place and rank, in the scale of ascent, and then proceed to determine the primary and constitutive forms, i.e. the elementary powers in which this tendency realizes itself under different degrees and conditions." Coleridge attempted to distinguish what he was doing from an exercise in nomenclature,¹⁴⁴ quite clearly understanding Linnaeus' point about its function. He seemed to think that his own purpose was in some way superior, since

he indicated that knowledge of "the common character of a whole class in the nomenclature of botany" did not provide an "understanding" of a particular plant as he himself would want to understand it. He also distinguished¹⁴⁵ himself from the inventor and maker of any "machine" of the world,

who knows its moving power, or perhaps himself constitutes it, who is, as it were, the soul of the work, and in whose mind all its parts, with all their bearings and relations, had pre-existed long before the machine itself had been put together. In him therefore would reside, what it would be presumption to attempt to acquire, or to pretend to communicate, the most perfect insight not only of the machine itself, and of all its various operations, but of its ultimate principle and its essential causes. The mysterious ground, the efficient causes of vitality, and whether different lives differ absolutely or only in degree, He alone can know who not only said, 'Let the earth bring forth the living creature, the beast of the earth after his kind, and it was so;' but who said, 'Let us make man in our image, who himself breathed into his nostrils the breath of Life, and man became a living soul.'

Coleridge suggested that his own position was that of the simple inquirer, seeking for the minimal number of principles of explanation which would render nature intelligible.

So to the question "What is Life?" he was tempted to reply, "What is not Life that really is?" The reality of things lay in their relation to other things as their sufficient cause,¹⁴⁶ since, as he remarked, all admit that "life" does not necessarily imply consciousness or sensibility. So he suggested¹⁴⁷ that "The aborescent forms on a frosty morning, to be seen on the window and pavement, must have some relation to the more perfect forms developed in the vegetable world." This "wider view" of life "fills up the arbitrary chasm between physics and physiology", and presumably between any and every "science". Coleridge insisted:¹⁴⁸ "The only danger lies in the leaping from low to high,

with the neglect of the intervening gradations." Then followed an expansion of the statement he made in his letter of 1817 that the whole process of nature was cyclical though progressive. He asserted that the one proof of the essential vitality of nature was "that she does not ascend as links in a suspended chain, but as the steps in a ladder; or rather she at one and the same time ascends as by a climax, and expands as the concentric circles on the lake from the point to which the stone in its fall had given the first impulse." Living things,¹⁴⁹ organisms, are "mechanised from within", - they have within themselves a power "which unites a given all into a whole that is presupposed by all its parts". Life as a whole is manifested by a "tendency to individuation"; it is governed by "the principle of unity in multeity".¹⁵⁰ In Aids this point¹⁵¹ seems to appear in an alternative phraseology, where he quoted Leighton:

God hath suited every creature He hath made with a convenient good to which it tends, and in the obtainment of which it rests and is satisfied. Natural bodies have all their own natural place, whither, if not hindered, they move incessantly till they be in it; and they declare, by resting there, that they are (as I may say) where they would be. Sensitive creatures are carried to seek a sensitive good, as agreeable to their rank in being, and, attaining that, aim no further.

When he came to apply his principles to the scale of being he said¹⁵² of gold, for example, that it expressed life. To understand the meaning of this, he described what he called two counteracting tendencies of nature, "that of detachment from the universal life, which universality is represented to us by gravitation, and that of attachment or reduction into it". Gold and the other "noble metals" represent the units in which the latter tendency - that of identity with the life of nature,

has the preponderance. "It is the form of unity with the least degree of tendency to individuation." Crystals, the next example, represent "the simplest forms of totality evolved", by which he meant "the simplest forms of composition". When he turned to geology, he reminded his reader of his understanding of strata as "fixt life" when he suggested¹⁵³ that strata are to be viewed firstly as "the residue and product of vegetable and animal life". Secondly, strata manifest "the tendencies of the Life of Nature to vegetation or animalization". It is in the lowest forms of the vegetable and animal world that "we perceive totality dawning into individuation". He immediately stated that man is the highest product of this level of being and that it was in men that "individuality is not only perfected in its corporeal sense, but begins a new series beyond the appropriate limits of physiology". Whatever he was prepared to say about the unfolding of nature through the different levels of being, he wanted to reserve for man a special status. Of the vegetable and animal world as a whole he said: "The tendency to individuation, more or less obscure, more or less obvious, constitutes the common character of all classes, as far as they maintain for themselves a distinction from the universal life of the planet; while the degrees, both of intensity and extension, to which this tendency is realized, form the species, and their ranks in the great scale of ascent and expansion."

In his attempt to elaborate further what he understood of the scale of being he said that "as the individuals run into each other, so do the different genera. They likewise pass into each other so indistinguishably that the whole order forms a very network."¹⁵⁴ This is to be read in conjunction with his statements on an earlier page where he urged men

to learn about the "interpenetration", the "total intussusception, of the existence of all in each as the condition of Nature's unity and substantiality, and of the latency under the predominance of some one power, wherein subsists life and its endless variety ..."¹⁵⁵ Also, it is important to notice another comment he made: "Hence the difficulties which have embarrassed the naturalists, who adopt the Linnaean classification, in their endeavours to discover determinate characters of distinction between the vermes and the insects."¹⁵⁶

However, Coleridge was not a forerunner of Darwin. He was not writing a book which was a prelude to the Origin of Species and its hypothesis of "transmutation". Whilst not committed to the conviction that there were absolutely clear distinctions to be drawn between creatures in their different ranks of being, this did not imply for him that one group may include members who by a process of change themselves give rise in the course of time to another entirely different and recognisably different species.

Coleridge had written of "detachment" and "attachment", of "totality" and "individuation". He also wrote of the "polarity",¹⁵⁷ or "the essential dualism of Nature, arising out of its productive unity, and still tending to re-affirm it, either as equilibrium, indifference, or identity". Life manifests itself in the "counterpoint" of its different powers, and in their "strife".¹⁵⁸ His employment of this kind of language was the nearest he approached to anything that could be described by the word "theodicy" (except in the sense in which Beck described Herder's book). Together with the law of continuity, he asserted a certain "contradiction"¹⁵⁹

in the development of things, but this is not described as *physical evil*, for example, even when he discussed feeling, sensibility, and the senses generally.¹⁶⁰ In the latter connection he was careful to protect himself from a charge of a certain incoherence in his discussion by saying, "I pretend not to control the freedom, in which the necessity of Nature is rooted, by the precise limits of a system". He might have seen the difficulties in which some of the interpreters of Linnaeus had found themselves, but hardly provided an interpretation of their factual information that would commend itself to the experimental scientist. Coleridge was well aware¹⁶¹ that he was constructing and applying a hypothetical explanation which was the result of an "analytic method" rather than a "synthetic" one. Man, he maintained,¹⁶² needs to comprehend the harmonies of nature, her endless forms, the thousand-fold realization of her laws, "which yet in their absoluteness can be discovered only in the recesses of his spirit ..."

Having said that, he could say almost anything he liked. When he explained to his readers of *Aids*¹⁶³ the distinction between an organism and a machine he wrote that not only the characteristic shape of an organism was evolved from "the invisible central power", but also that "the material Mass itself is acquired by assimilation". He went on:

The germinal power of the Plant transmutes the fixed air and the elementary Base of Water into Grass or Leaves; and on these the Organific Principle in the Ox or Elephant exercises an Alchemy still more stupendous. As the unseen Agency weaves its magic eddies, the foliage becomes indifferently the Bone and its Marrow, the pulpy Brain, or the solid Ivory. That what you see is blood, is flesh, is itself the work, or shall I say, the translucence, or the invisible Energy, which soon surrenders or abandons them to inferior Powers, (for there is no pause nor chasm in the activities of Nature) which repeat a similar metamorphosis according to their kind.

Coleridge concluded his remarks on this illustration by saying, "These are not fancies, conjectures, or even hypotheses, but facts; to deny which is impossible, not to reflect on which is ignominious." In the Theory of Life¹⁶⁴ he did reveal an apprehension that not everything he said might correspond to the truth about the way things are, when he distinguished briefly between his "symbols" of natural processes which he said might be "fictitious", but continued that "the thing signified" was "grounded in truth". One can find occasional references also expressing Coleridge's hesitancy about his symbols¹⁶⁵ but on the whole he must be said to write as though what he said could confidently be taken as informing his readers about the truth of things at least in the Theory of Life.

It has already been noted that Coleridge reminded his readers that God was the ground of the being not only of the world as a whole but of the creatures on it and especially of man. Man was made directly by God rather than brought forth from the earth. He began a new series in the ranks of being, and represented the perfection of individuality insofar as that could be expressed through a body ... In man's body nature had its crown and consummation¹⁶⁶, and in the human brain was the consummation of nature's combined energies.¹⁶⁷ Nature, it seemed, formed the different classes¹⁶⁸ "from choice and bounty", and had nature gone no further the vegetable and insect creation would have formed a system of life. But as nature ascended in power she apparently also sometimes exhibited what Coleridge called¹⁶⁹ "a retrograde movement". However, "Nature never loses what she had once learnt, though in the acquirement of each

new power she intermits, or performs less energetically, the act immediately preceding. She often drops a faculty but never fails to pick it up again. She may seem forgetful and absent, but it is only to recollect herself with additional, as well as recruited vigour, in some after and higher state; as if the sleep of powers, as well as of bodies, were the season and condition of their growth."

It is at this point, according to Coleridge,¹⁷⁰ that nature loses analogies with the previous rank of being; "with the single exception of that more than valuable, that estimable philanthropist, the dog,¹⁷¹ and perhaps, of the horse and elephant, the analogies to ourselves, which we can discover in the quadrupeds or quadrumani, are of our vices, our follies, and our imperfections." In particular, so far as man's soul is concerned,¹⁷² "Nature did not assist as handmaid under the eye of her sovereign Master". In Aids Coleridge asserted that "there is more in man that can be rationally referred to the life of Nature and the mechanism of Organization". Man has the whole world in counterpoint to himself, and yet "contains an entire world within himself".¹⁷³ He expanded this brief summary in a paragraph beginning:¹⁷⁴ "In Man the centripetal and individualizing tendency of our Nature is itself centred and individualized - he is a revelation of Nature!" Man, he went on, is henceforward delivered up to himself to manifest his individuality, - in interdependence with others in politics; in independence in his moral life; and in genius in his intellectual life. And "polarity" in man's life must appear both in his reverence for liberty and in his reverence for law; in independence, but also in service and submission to the Supreme Will; in genius and originality, but also in

"resignation to the real world ... sympathy and inter-communion with Nature". In the conciliation of extremes is man's life to be manifested. The philosophical lectures¹⁷⁵ included an extensive summary of Coleridge's pattern of explanation which led up to his assertions about man, and this summary concluded by saying that nature for the production of man, took up all that she had been doing before,

and by superior aid presents the materials for forming the microcosm of man, who, with none but the simplest forms of external power, has the power of conquering the whole; and all that instinct had done throughout the creation in each separate part, to gain that by power of reason, so as bearing in itself the best witness of higher birth; no longer [to be the slave] of nature, but to be placed as her Lord, no longer as receiving gifts, but as standing forth, from the naked savage up to Newton, to bring whatever was within the eye within the power of the mind and to subject to the mind that which the senses had only given him the first notices of, as spies and out-ministers to discover what was yet to conquer.

Attention to one letter¹⁷⁶ of Coleridge's of 1820 may provide one clue as to why he did not publish his Theory though he was able to make use of some of its material elsewhere. He wrote:

Among many demonstrations, which I have educed, and (if I do not woefully deceive both myself and my fellow-enquirer, a man bred up in the very heart of the experimental and mechanic-material philosophy of the age) strictly warranting that name, I will mention that of the pre-existence of our Earth to the Solar System, and to it's existing relations as a part of that system; and likewise of a vegetable world anterior to the collection of Light, as solar Light, in the Focus of the vast Ellipse; and that in this must be sought & is to be found, the true difference of animal Life & Vegetable Growth, and the dependence of the former on Light and Gravitation, and the difference again of Gravitation both from the centripetal Power and from simple Attraction - and that I had arrived at this conclusion by necessary evolution from the First Principle of my Philosophy before I was aware of it's exact coincidence with the Mosaic Cosmogony.

In other words, having worked out his idea to accommodate any and every piece of scientific information he could tolerate, he had another hurdle

to overcome, that of the coincidence, or lack of it, of scriptural imagery with what he wanted to say. For Coleridge, as may be seen in his handling of material from Kant, the God of scripture and of the doctrine corresponding to scripture, came to be more important to him than the god of the philosophic Germans.

There are several comments that can be made at this point. First of all, given Coleridge's own insistence that his attempt to make "life" intelligible did not depend upon experimental evidence it is difficult to see how it could thererore have commended itself to the scientists. On the other hand, there was no reason why it should commend itself to a theologian, unless someone found in it some support for the conviction that man was in one crucial respect differentiated from the natural order. Further, the "metaphysics" of the work would be confusing to anyone unaccustomed to thinking about nature in the "leibnizian" tradition. If the work were known to be an extrapolation of a principle which could actually be traced back to the writings of Leibniz himself, that alone would probably have been enough to condemn it. The main comment so far, however, is that those interested in philosophy had already spotted a point, arising out of their reading of Kant's first Critique which would apply to Coleridge's Theory of Life in particular, since it represented an attempt to re-work a tradition on which Kant had his eye. So, for example, Haywood's 1844 Analysis of Kant's Critick of Pure Reason,¹⁷⁷ which followed up his first translation of the Critique in 1838, did attempt a summary¹⁷⁸ of the section of Kant where the latter had discussed the principles of explanation of nature

and their possible reference to God. Haywood noted:¹⁷⁹

Linnaeus in furtherance of the first of these principles sought to reduce nature to a few genera and species, and Buffon, on the contrary, observing the difference of each individual, sought to remove from that nature, genus and species. The one discovered the unity of nature in this, that it always acts according to the same plan. The other maintained that nature always acts according to a different plan. But both one and the other, the supporter of classification as well as the supporter of specification, supposed that the principle of their opposite systems was in nature; and both agreed in giving an objective necessity to their idea, whether it was that of homogeneousness or variety.

Haywood was not a specially perceptive critic of Kant, but had grasped one point that Kant had been making, and which one can only suppose that Coleridge simply had not seen, or that he chose to ignore, or thought that he had answered. The problem of "objectivity" applied not only to what Coleridge said about the symbols he employed, and the way in which they were ultimately grounded in the truth of things, but particularly where Coleridge supposed that he could fill in each and every gradation between the steps of the ladder of being. One may compare especially what Coleridge said, with Kant's comment on Leibniz' law of the "continuous gradation" of created beings". One recalls that this meant simply,

the following out of that principle of affinity which rests on the interest of reason. For observation and insight into the constitution of nature could never justify us in the objective assertion of the law. The steps of this ladder, as they are presented to us in experience, stand much too far apart; and what may seem to us small differences are usually in nature itself such wide gaps, that from such observations we can come to no decision in regard to nature's ultimate design - especially if we bear in mind that in so great a multiplicity of things there can never be much difficulty in finding similarities and approximations.¹⁸⁰

A useful maxim did not in itself determine the truth. The very fact that Coleridge could write the Theory of Life after his reading of the first

Critique, and his inability to see the problem, or to take it seriously, must argue for some essential indifference to the work of the "critical" Kant, and is to be borne in mind. He took from Kant what he found useful to him, and ignored the significance of what conflicted with his own particular objectives.

Before turning in more detail to Coleridge's other attempts to grapple with Kant, however, it is worth noticing that Paley's Natural Theology clearly represented a theology directly related to the understanding of nature which could be, and was, revised and appropriated for years to come - a point suggested earlier in this exposition. One instructive example of this is to be found in Henry Lord Brougham's¹⁸¹ Dissertations on Subjects of Science connected with Natural Theology, which was the concluding volume of a new 1839 edition of Paley's complete works. These dissertations incidentally reveal the way in which theology could go on being written in this country as though what Hume had said had been adequately dealt with by Paley. Ritchie's An Account of the Life and Writings of D. Hume Esq.,¹⁸² of 1807 was the only biography of him available until the publication of Burton's work of 1846, The Life and Correspondence of David Hume, and neither of these works tackled the major philosophical issues Hume had raised. In 1830 Robert Morehead¹⁸³ had offered to the public his Dialogues on Natural and Revealed Religion later referred to with approval by Burton,¹⁸⁴ though a shrewd reviewer saw how alien to Morehead's purposes was the dialogue technique employed by Hume.¹⁸⁵ Brougham, however, not only thought that he could manage the dialogue form¹⁸⁶ to suit a theological exposition, but employed it to defend Paley. He recalled the point that dialogue was a technique used

by ancient philosophers and clearly saw no reason why it should not be helpful to him - at least to clear the ground. What he particularly wanted to do was deal with Paley's reluctance to employ illustrations from the discoveries of the astronomers¹⁸⁷ and with this in mind examined Newton's Principia. (There were references to Laplace, but not to Kant.) The first volume of Brougham is largely natural history,¹⁸⁸ but the attention paid to Newton alerts one to what is to be found in the second volume - a discussion which could in some respects have been written any time in the eighteenth century. In itself, therefore, this work serves as a reminder of the apparent novelty of some of Coleridge's writings on theology for his contemporaries just as it illustrates the inadequacy of the Theory of Life as a theology of nature.

Brougham opened his second volume with a "Dissertation on The Origin of Evil". He stated that¹⁸⁹ "as long as design is proved to exist in the universe, the malignity of the overruling principle, how painful soever to our contemplation, would, though fully admitted, offer no proof against that derived from the positive evidence of its existence." The reader is recalled to the works of Bayle, and then¹⁹⁰ to King, and to Law's commentary. Brougham said¹⁹¹ that one could not cope with manicheism by a priori reasoning, but like Paley, made no explicit reference either to Leibniz or to Kant. Of the concept of the chain of being, he remarked¹⁹² that it

only wraps up the difficulty in other words, without solving it. For then the question becomes this - why did the Deity create such a chain as could not be filled up without misery? It is, indeed, merely re-stating the fact of evil existing; for whether we say there is suffering among sentient beings, - or the universe consists of beings more or less happy, more or less miserable, -

or there exists a chain of beings varying in perfection and in felicity, - it is manifestly all one proposition.

Even if Brougham had not read Leibniz, at least at this point he would obviously not have agreed with him on one line of a possible theological defence in response to the problem of evil. He himself suggested¹⁹³ that the solution could only be a matter of approximation - a discussion of limits, - but fundamentally, Paley was right:¹⁹⁴ "The pains and the sufferings, bodily and mental, to which we are exposed if they do not sink into nothing, at least retreat within comparatively narrow bands; the ills are hardly seen when we survey the great and splendid picture of worldly enjoyment of ease." What is odd about Brougham's argument is that he employed a kind of argument in design theology which had been applied to the "whole" universe in the tradition. So, instancing the fish, he¹⁹⁵ described the general presupposition which was to form the basis of any scientific analysis. What seemed to be an evil or defect was "a part of the most perfect and excellent structure, which it was possible even for Omnipotence and Omniscience to have adopted", and "no other conceivable arrangement could by possibility have produced so much advantage, or tended so much to fulfil the design in view". He did not see that this assumption could be questioned, or another "explanation" offered. What he said of the apparent problem of discovering a defect in a fish could be applied to any creature. Evidence which appeared to count against the skill and goodness of the deity in forming the structure of a creature was to provoke only a suspension of judgement. A scientist was to investigate the subject of his science, resting "in the humble hope and belief that one day all would appear for the best". Paley's material could now be supplemented by illustrations from the work

of Cuvier¹⁹⁶ who was clearly being read as providing more, and not less support, for natural theology.¹⁹⁷ Brougham had learned from Cuvier,¹⁹⁸ who had taken notice of Kant, that the notion of the chain of being could not be sustained¹⁹⁹ given clear evidence of "blanks" in the series of creatures, although there was a possible line of defence in saying that all the creatures of a series existed at some time or other, though not every rank would be occupied at all times. And it may be noted here that despite his apparent awareness of the work of Cuvier, the significance of that work had not affected what Coleridge had wanted to say in his Theory of Life, as it influenced Brougham. On the other hand, just as Coleridge had invoked the special intervention of the deity in the creation of man, so Brougham invoked²⁰⁰ that intervention not only for man but also for other groups of creatures, which was a predictable and a common response to Cuvier's material. Finally, Brougham's work would seem to be more "up-to-date" than Coleridge's, if anyone chose to compare them. Brougham was taking notice¹²¹ not only of Cuvier, but of his successors on the continent, and in England, of Smith, Buckland, Sedgwick and Lyell. This alone was enough to give the work an appearance of modernity so far as its "science" was concerned, and to leave Coleridge's book as a piece of metaphysical speculation. Brougham even had a reference²⁰² to "Mr. Darwin (grandson of the celebrated physician and poet)" and his discoveries in South America. So it is the kind of theology worked out by Brougham and others which the scientists who wanted to work at their science free of theological concepts had to tackle. Coleridge's work could be safely ignored, and in any case, from 1845 onwards, the attention of the public was absorbed by the scandal associated with

the publication of another "evolutionary book". The Theory of Life is of interest only to those concerned with Coleridge's own thought, and was of little significance even in its own time. Certainly, it made no helpful contribution to the development of a new theology related to nature, or to theodicy. By not publishing it, though he employed some of its themes in other work -- for example, in the Friend and in Aids -- he virtually repudiated it himself. Other work he had on hand, or proposed to write, mattered more.

We have already noted some points at which Coleridge may have been influenced by the work of Kant, or at any rate, have found Kant helpful, and may now turn to look at some of the evidence about how Coleridge came to know Kant's writings or could have come to know them bearing in mind the particular interests of this study. It seems clear that Kant's work was "discovered" by the English in the course of their investigation into German culture. Semple's²⁰³ 1838 translation of Kant's Religion within the Boundary of Pure Reason urged²⁰⁴ that it was most important to study a work thought by the Germans themselves to matter for the understanding of religion. "That it concerns us islanders TO KNOW the religious or quasi-religious opinions entertained by our next-door neighbours on the Continent, no sane man, I apprehend, can doubt", and these opinions were "the cherished and valued sentiments of a race who, both by speech and blood, are our nearest kinsfolk." John Mander's recent book²⁰⁵ entitled Our German Cousins included a discussion of the period around the turn of the eighteenth and nineteenth century, in which he made the general point that prior to Madame de Staël's De l'Allemagne of 1813, very little literature written in German was

available in translation. Often the selection of material was unfortunate, and the translation poor. He also asserted²⁰⁶ that "nothing of what was truly original in the philosophy of the period - Kant, Fichte, Schleiermacher or Schelling - achieved translation into English (except, at second remove through the work of Coleridge)." To say this is to underestimate the significance of what had in fact been translated before 1800 so far as the work of Kant is concerned, and probably to overestimate the significance of Coleridge in the matter. Whilst it is true that a translation of the Critique of Pure Reason for example was not to appear for some time, Germans resident in London had provided introductions to the thinking of Kant for the interested members of the public. These introductions were not "critical" in themselves nor did they provide an account of the development of Kant's thought, or the way in which his views differed before and after 1770, but they did provide some of the "clues" to Kant. Of two introductions, that of F.A. Nitsch of 1796,²⁰⁷ A General and Introductory view of Professor Kant's Principles concerning Man, the World and the Deity, (lectures of 1794-6) given in London is perhaps better than A.F.M. Willich's²⁰⁸ Elements of the Critical Philosophy¹⁷⁹⁵ which was more or less an account of Kant's work,²⁰⁹ and it did not provide enough comment and analysis to assist those coming to the work of Kant for the first time.

Nitsch gave an exposition of material from the three Critiques, the Prolegomena, the Religion and of various others works. References to The Only possible demonstration of the Existence of a deity (like some of the other works to which he makes references, mis-dated) were to

be treated with caution. Nitsch said²¹⁰ that this work did not constitute any part of the Kantian system, as it was published ten years before that system was completed. So far as Kant's predecessors are concerned it is worth noting that he remarked:²¹¹

Those who follow Leibniz, the greatest of all Spiritualists,²¹² naturally assume it as a fundamental principle of their system, that the world is a compound of simple substances, that our opinion of things being extended and figured is the result of confused ideas, and that the sensitive faculty which furnishes those ideas, so far from being the true source of real knowledge, is rather a hindrance to the intellect, which alone has the power to contemplate things as they are, and to procure substantial knowledge of the World.

Clearly, if Coleridge read these words, he may have derived from them a principle which he could seek to substantiate, both by pursuing it in his reading of Leibniz, and developing it in relation to his own theology and philosophy. It is also convenient to note here that this comment of Nitsch's is one of the very few more favourable remarks made about Leibniz by commentators, for many years. Another instance is that of a review²¹³ of Madame de Staël's book, which mentioned Bayle, referred to Kant's contribution to Philosophy, and offered a brief word of praise for Leibniz, "who of all writers since Bacon most abounds in those fruitful thoughts which arise from a comprehensive glance over the principles of knowledge".²¹⁴ But even the most casual comment tended to be a derogatory one. Leibniz was more normally described as "a speculative philosopher who has accommodated himself to a popular opinion".²¹⁵ Closely associated with Kant, the association did nothing to promote an understanding of either.²¹⁶ It was perhaps particularly unfortunate that what seems to have been the first work of Leibniz' to be translated into English²¹⁷ and published in 1850, was one which had

been published anonymously by Leibniz.²¹⁸ He had not wished it to be known that it had been written by a Protestant. It was now offered to the public by a Catholic, in the hope that it would contribute to the understanding of the Catholic position.²¹⁹

To return to Nitsch, however, it may also be noted that he provided three statements to help in the understanding of Kant's principles of religion. He summarised²²⁰ Kant's position firstly by saying, that "In the physical world we discover the strictest fitness; in the moral world this fitness would be destroyed if we conceive that there could be any law that cannot be fulfilled, even by approaches that are progressive." The second²²¹ was that the condition of the possibility of the unity of the highest good with virtue "can lie no where else than in the cause distinct from nature, in a cause which produced nature, and has the power to realise the agreement of nature with our moral conduct." And²²² thirdly:

For even to believe in a Deity supposes a regard for the moral law, and it is only he that will not relinquish that law, that can sincerely believe in a God. The physical world can of itself give no information of a God; it is a collection of causes and effects, where every cause has another cause in infinitem. And though we are led by it to a first cause, yet it is the moral nature of man alone, which teaches us that the first cause is a moral being, that is, a God.

It could not be supposed that someone whose theological education had been based on Paley's works would take readily to this approach.

Coleridge's own reaction to it will be indicated later - it is sufficient for the moment to notice²²³ that Nitsch's book was reviewed with varying degrees of hostility and indifference. ^{We may also note that} Coleridge had a friend who had been interested in the work of Kant for a few years. Thomas Beddoes²²⁴

was working in Bristol with Davy²²⁵ (the latter himself quite possibly influenced in his theology by the writings of Erasmus Darwin)²²⁶ and may have been one of the first people in the country to realise the interest and importance of Kant, for scientists as for philosophers.²²⁷ Other friends who may also have been important influences on Coleridge from time to time were Thomas de Quincey²²⁸ who himself translated many of Kant's essays into English and published them in various magazines,²²⁹ and Henry Crabb Robinson.²³⁰

Quite apart from introductory material being published, a useful selection of the work of Kant himself could be read without an expedition to Germany or acquiring the knowledge of the German language. 1798 saw the publication of Essays and Treatises on moral, political and various philosophical subjects. From the German by the translator of the principles of the Critical Philosophy.²³¹ There seems to be some doubt²³² about the author's identity, but it is possible that it was Willich.²³³ This collection included many of Kant's most interesting shorter essays, but the essays were undated in the compilation, and were in fact in no particular order. A reader would have difficulty in learning what Kant had to say which would mark him out as significantly distinctive in philosophy from some of his contemporaries.²³⁴ Mander's²³⁵ comment on Coleridge that "it was probably the lure of the yet untranslated Kant that first seriously attracted him to learn German and study the new philosophy" needs to be seen in the light of the knowledge of the publication of these Essays, haphazard collection though they seemed to be. Attention to Coleridge shows that he found helpful material in Kant's pre-critical works, including some provided in the Essays,

in his search for a means of re-writing theology. Certainly the earliest translators of the first Critique were well aware of the first efforts to communicate Kant's thinking to the English by Nitsch and Willich, and one or two others.²³⁶ After Haywood's editions of 1838 and 1848, Meiklejohn's²³⁷ version appeared in 1855, and in his "Preface" he remarked:²³⁸

It is curious to observe, in all the English works written specially upon Kant, that not one of his commentators ever ventures, for a moment, to leave the words of Kant, and to explain the subject he may be considering in his own words. Nitsch and Willich, who professed to write on Kant's philosophy, are merely translators; Haywood, even in his notes, merely repeats Kant; and the translator of 'Beck's Principles of the Critical Philosophy', while pretending to give, in his 'Translator's Preface' his own views of the critical Philosophy, has fabricated his Preface out of selections from the works of Kant. The same is the case with the Translator of Kant's Essays and Treatises, (2 vols. 8vo. London, 1798). This person has written a preface to each of the volumes, and both are almost literal translations from different parts of Kant's works. He had the impudence to present the thoughts contained in them as his own; few being then able to detect the plagiarism.

Meiklejohn himself was well aware of the difficulty of translating the Critique given the doubtful aid of the philosophical vocabulary then current in England.²³⁹ (Haywood had in fact made one useful contribution to the study of Kant already noted, apart from his translations.)

It does not seem therefore, as though the earlier nineteenth-century students of Kant's first Critique specially associated the name of Coleridge with the publicising of Kant's views. Part of the reason may have been that they realised that Coleridge tended to employ suitable material from Kant, and ignore what was unsuitable, rather than make it his business to transmit and interpret Kant's philosophy as such.

Coleridge himself had so often emphasised²⁴¹ his own opinion that he had arrived at the distinctive philosophy he had, such as it was, before he had read Kant's first Critique - an amazing claim, if true. He explained in 1825 that he valued Kant not as a metaphysician, but as a logician - an improvement on his early days of studying Kant, when the latter's work seemed unintelligible -²⁴² and said that he could not only honestly assert but satisfactorily prove that all the elements of his present opinions had been formed before he had ever seen a book of German metaphysics. Sometimes he employed material from Kant and did not acknowledge its source,²⁴³ perhaps because as Beach suggested, he was inaccurate, and reluctant to give credit for his ideas. He may have wanted to disguise the degree to which he was indebted to Kant, as to other Germans of his day. Those who did associate Coleridge's name with Kant may have preferred to forget the association, so it could be a great hindrance in furthering the cause of understanding the "critical" Kant. Coleridge had been caricatured in Nightmare Abbey²⁴⁴ as a Kantian, and Hazlitt, anonymously, had written as unpleasant a review of the Biographia as can be imagined,²⁴⁵ concentrating on Coleridge's attempt to transmit Kant: "As for the great German oracle Kant, we must take the liberty to say, that his system appears to us the most wilful and monstrous absurdity that ever was invented." Hazlitt was particularly irritated by one feature of Kant's position:

This transcendental philosopher is ... pleased to affirm, in so many words, that we have neither any possible idea, nor any possible proof of the existence of the Soul, God, or Immortality, by means of the ordinary faculties of sense, understanding or reason: and he therefore (like a man who had been employed to construct a machine for some particular purpose), invents a new faculty, for the admission of these important truths, namely, the practical reason; in other words, the will or determination that these things should be infinitely true because they are infinitely desirable to the human mind - though he says it is impossible for

the human mind to have any idea whatever of these objects, either as true or desirable.

(Coleridge had certainly appreciated Kant's point of view on the arguments for the existence of God²⁴⁶). Hazlitt's final comment²⁴⁷ here was, "we turn gladly from absurdities that have not even the merit of being amusing; and leave Mr. Coleridge to the undisturbed adoration of an idol who will have few other worshippers in this country." And his final comment on Coleridge himself, was that he had been "indulging his maudlin egotism and his mawkish spleen in fulsome eulogies of his own virtues, and nauseous abuse of his contemporaries - in making excuses for doing nothing himself, and assigning bad motives for what others have done. - Till he can do something better, we would rather hear no more of him."

Insofar as the object of their attention was the Kant of the first Critique, anyone who knew Coleridge might also have discerned that his real theological interest did not lie in its material,²⁴⁸ although he appropriated from it a means of talking about reason. "Kant ... enabled Coleridge to give intellectual definition to a view already emerging from his reading of the seventeenth century English Platonists and one which remained fundamentally more Platonist than Kantian in its inspiration."²⁴⁹ In a general way he was greatly impressed by Kant's achievement,²⁵⁰ especially perhaps, in the light of what he knew about Kant's behaviour when under pressure from the official "censors":

Questions which cannot be fully answered without exposing the respondent to personal danger, are not entitled to a fair answer; and yet to say this openly, would in many cases furnish the very advantage which the adversary is insidiously seeking after. Veracity does not consist in saying, but in the intention of communicating.

truth; and the philosopher who cannot utter the whole truth without conveying falsehood, and at the same time, perhaps, exciting the most malignant passions, is constrained to express himself either mythically or equivocally.

As to the results of his²⁵¹ study of Kant he produced his own statement of what above all he valued:

In him is contained all that can be learnt - & as to the results, you have a firm faith in God, the responsible Will of Man, and Immortality - & Kant will demonstrate to you, that this Faith is acquiesced in, indeed, nay, confirmed by the Reason & Understanding, but grounded on Postulates authorized & substantiated solely by the Moral Being - These are likewise mine: & whether the Ideas are regulative only, as Aristotle & Kant teach, or constitutive & actual as Pythagoras & Plato, is of living Interest to the Philosopher by Profession alone. Both systems are equally true, if only the former abstain from denying universally what is denied individually. He for whom Ideas are constitutive, will in effect be a Platonist ...

It is a simple enough procedure to look for evidence of Coleridge's reading of the Vermischte Schriften²⁵² (bearing in mind that he may have been reading in the original language work with which he had already, in some instances, been familiarised in an English translation). What is more important is to pay attention to the work that mattered most to him. In the light of the above passage from his correspondence, one's attention is naturally directed to the work Kant produced in the 1780s, and to Coleridge's presentation of it in his role as the new "English metaphysician"²⁵³ he seems to have believed himself to be. But one recalls that in a note of 1810 he said, "The Deity is not a mere solution of difficulties concerning origination; but a truth which spreads light, and Joy, & Hope, and Certitude thro' all things -"²⁵⁴ He could not find such a satisfactory concept of God in Kant's work of the post-critical period. In the first place, stoicism²⁵⁵ was not for him,

both because Kant's God was merely "regulative"²⁵⁶ and not "constitutive", - and could not be described as a "redeemer". Coleridge wanted the notion of the will as the creator of value,²⁵⁷ but seems to have found that the conviction that man was a fallen creature was something born out by his own experience:²⁵⁸ "After the long and agonizing years of struggle with opium, and what must have seemed to him irrational acts of many kinds, the concept of man as a fallen creature with a diseased will in need of divine grace was surely necessary to his self-respect, perhaps even to his sanity." So, for example he wrote in 1817:²⁵⁹

I feel convinced that a great change is preparing for me - to the Grave, is the most probable. But neither in body, mind, or estate can I remain such, Where, and as I am. The Almighty's visitations in this life are always calls. The cloud of griefs that have gathered of late thicker and gloomier around me, and the poisoned arrows of unprovoked malignity that have been shot thro' it - are these urgencies to some revolution - that I should be entire, decisive? ... O what a dead palsy is Man unaided by Grace! The sacrifice of his will is demanded, and that not yielded, his very affections, his gratitude, will serve the same purposes as vices: if they cannot blind, they will entangle him!

Though Coleridge had to a certain extent appreciated Kant's position on theodicy, he could not make use of the limited "solution" Kant offered, though he had read his 1791 essay,²⁶⁰ and indeed he seems to paraphrase some of it in one of his essays in the Friend.²⁶¹ There he wrote of the fear-ridden and angry believers, who would do well

to re-peruse the book of Job, and observe the sentence passed by the all-just on the friends of the sufferer, who had hoped, like venal advocates, to purchase the favour of deity by uttering truths of which in their own hearts they had neither conviction nor comprehension. THE TRUTH FROM THE LIPS DID NOT ATONE FOR THE LIE IN THE HEART, while the rashness of agony in the searching and bewildered complaint, was forgiven in consideration of his sincerity and integrity in not disguising the true dictates of his Reason and Conscience, but avowing his incapability of solving a problem by his Reason, which before the Christian dispensation the Almighty was pleased to solve only by declaring it to be beyond the limits of human Reason.

The difference in Coleridge's version of these points, as compared with Kant's, is that the latter did not propose that the Christian dispensation solved the problem - for him, it simply remained beyond the limits of human reason, although there might be a way for the truly moral man to cope with evil.

In the second place, quite apart from his consciousness of needing a redeemer, and his attention to traditional theology in consequence, Coleridge could not understand why Kant had been so philosophically cautious in his ascription of perfection to God. He clearly admired Kant's earlier rather than later works,²⁶² possibly because he spotted their coherence with the work of Leibniz^{whom} he was concerned to emulate.²⁶³ So in 1810 he noted:

N.B. I must bring into clear conceptions that business of the necessity which at length shews itself in all the apparent final causes of Nature - the Land & Sea Breezes for instance, the great Spiracles made by earthquakes & volcanoes, (Volcanos themselves vast Breathing-holes) which are then the great Antidote, Preventive ... often & always palliative, of Earthquakes - see Kant's Himmels' System &c - Now I must minutely compare this with the convictions forced on us by the reciprocity of end & means (i.e. every part a mean to every part, ergo, an end) as in the eye, 1. its constituent parts, then the optic nerve ... then the brain, then life, then understanding, then reason - and then I shall be able to determine whether Reason does not command us to judge of these astronomical & geophysical necessities by the contrivances of the organized world, & not vice versa. - This would lead at once to the proper mode of stating the problem of the Deity - viz. the ground or principle of the universe ... But what if I supposed a supreme Reason as the ground of all things, must not the mundus rationatus of necessity appear necessary - is not this necessity identical with superlative Wisdom of arrangement? - Well, but after a fair numeration of these mechanic, chemical, and mechanico-chemical ... Operations, compare them with 1. the effect produced by Life as hinted at before in the component parts of animals and vegetables - and then by Instinct - and latterly by reason, including all the actual and all the demonstrably possible & if man be progressive, certain mutations of the globe then take this globe in a fair average of Improvement, by a ratio - as the

Present to the Past, (ex. Europe to the same Latitudes in N. and S. America) so the Future to the present, which is exceedingly modest - for blessed Heaven! What are 6000 years - & have not we proof, that the velocity increases in squares or cubes, not arithmetically - 6000 years to the possible Future/ well! but to make the conception plain, accept this average/ & then describe the ground of the Universe by abstracting the limitations of the operating powers - i.e. by abstracting all the imperfections arising from the finiteness - ex. gr. the imperfections of instinct for not being at the same time Reason - Reason for not being Instinct - &c - and what will be the result? - If I am not much mistaken, the Sum will be something so very near our loftiest conceptions of God, that no man in his senses believing the one would hesitate in taking for granted the other -/- This after the proof from Conscience, ... in its widest Sense - & the proof of the dependence of the speculative on the practical Reason/.

Apart from the use of Kant's work of the 1750s, it seems likely from this note that Coleridge had also found his work, The Only Possible Demonstration, of 1763²⁶⁴ extremely helpful to him in his search for a new and impressive theology. In relying on this work of Kant's, he was doing no more than Eberhard had done, in drawing attention to a position of Kant's that the latter had attempted to repudiate, but which some of his readers preferred. In another note²⁶⁵ of 1804 he said that he did not clearly see

by what right Kant forbids us to attribute to God Intelligence and Will, because we know by experience no Intelligence or Will but the human Understanding (?), the human Volition(?), and these subsist under relations (and limitations) not attributable to God; while yet he allows us to attribute (to him) the notion of Ground, tho' our experience furnishes no instance of an infinite Ground, or an absolute Ground, more than of an infinite understanding or of an absolute will.

And twenty years later, "I feel the liveliest conviction that no religious man could retain the distinction between the Divine Will, and the unknown Something which is to answer the purpose of a Will - a non-intelligence that performs the function of an Intelligence - nor do I

see wherein this differs from a moral and modest Atheism."

It becomes apparent from a reading of the Biographia especially, that Coleridge found the work of 1763 the most helpful to him, although he wanted to take it in a direction which Kant had refused to take. After his summary of some of the material from the work of 1763,²⁶⁶ (and which he did not cite as a summary, but as his own reflections on the central issues) he led up to his own translation of the passage²⁶⁷ where Kant began to explain what he meant by attributing "cognition and resolution" to the Deity. Coleridge then proceeded (and Kant had said what he meant by the dependence of the world on God making necessary the attribution of "moral characteristics" to God)²⁶⁸ to write of his conviction²⁶⁴ that one must have faith in God not only as ground of the universe "by his essence", but in him as maker and judge by wisdom and holy will. The most useful passage he found in Kant, however, was probably his statement of the divine all-sufficiency,²⁷⁰ precisely the statement with which Kant had come to terms in his first Critique. Coleridge turned it to suit his own purpose, as Kant had first proposed it. So in the Biographia²⁷¹ he wrote:

If a man be asked how he knows that he is? he can only answer, sum quia sum. But if (the absoluteness of this certainty having been admitted) he be again asked, how he, the individual person, came to be, then in relation to the ground of his existence, not to the ground of his knowledge of that existence, he might reply, sum quia Deus est, or still more philosophically, sum quia in Deo sum. But if we elevate our conception to the absolute self, the great eternal I AM, then the principle of being, and of knowledge, of idea, and of reality; the ground of existence, and the ground of the knowledge of existence, are absolutely identical, Sum quia sum; I am because I affirm myself to be; I affirm myself to be, because I am.

And his own footnote on this²⁷² asserted the distinction between the "conditional finite", the individual, and the absolute, and "likewise the dependence or rather, the inherence of the former in the latter; in whom 'we live, and move, and have our being,' as St. Paul divinely asserts, differing wisely from the Theists of the mechanic school (as Sir J. Newton, Locke, &c.) who must say from whom we had our being, and with it life and the powers of life."

Coleridge developed in his own way the material he had derived from Kant. He wrote in 1818,²⁷³ that "God alone is a self-comprehending Spirit; and in this incommunicable Adequate Idea of himself ... his Personality is contained". And later in the same year,²⁷⁴ "I adore the living and personal God, whose Power indeed is the Ground of all Being, even as his Will is the efficient, his Wisdom the instrumental, and his Love the final, Cause of all Existence; but who may not without fearful error be identified with the universe, or the universe be considered as an attribute of his Deity." As he put it in Aids²⁷⁵ his "Idea" was the basis of religion, commanded by the conscience, and required by morality, and seemed to *need* the attributes of holiness, providence love, justice, mercy. "It comprehends, moreover, the independent (extra-mundane) existence and personality of the supreme ONE, as our Creator, Lord, and Judge." The root of the matter had become for him the contemplation²⁷⁶ of the deity in his personal attributes, without which there was a necessary "Distaste to all the peculiar Doctrines of the Christian Faith, the Trinity, the Incarnation of the Son of God, and Redemption."

Coleridge attempted to pay attention to the "peculiar Doctrines" at some very interesting points, one of which again illustrates the kind of use he made of Kant's work to serve his own purposes. For example, in the Friend²⁷⁷ he picked up one of the points he had made in his reflection on Kant's work of 1755, which coheres with the work of 1763. "Look round you and you behold everywhere an adaptation of means to ends." His instructions proceeded as follows:

Meditate on the nature of a Being whose ideas are creative, and consequently more real, more substantial than the things that, at the height of their creaturely state, are but their dim reflexes; and the intuitive conviction will arise that in such a Being there could exist no motive to the creation of a machine for its own sake; that, therefore, the material world must have been made for the sake of man, at once the high priest and representative of the Creator, as far as he partakes of that reason in which the essences of all things co-exist in all their distinctions yet as one and indivisible. But I speak of man in his idea, and as subsumed in the Divine humanity, in whom alone God loved the world.

With regard to the first sentence of this paragraph of Coleridge's, one should perhaps also recall a passage on the previous essay²⁷⁸ which clearly draws on some of the points of the third of Kant's Critiques. First, Coleridge has a passage which explains the strength of design theology for him. Coleridge pointed out that in perception, "we at once identify our being with that of the world without us, and yet place ourselves in contradistinction to that world". We also believe "that the productive power, which is in nature as nature, is essentially one (i.e. of one kind) with the intelligence, which is in the human mind above nature". However one abjures the conviction, he said, language employs "terms and conjunctions that suppose its reality, with a feeling very different from that which accompanies a figurative or metaphorical use of words". And when contemplating a "whole", whether in itself or

as part of another "whole", we assume "an intention, as the initiative, of which the end is the correlative". Then Coleridge distinguished between the assumption of "final" causes as "constitutive and explanatory", and the employment of the presumption, "as an auxiliary and regulative principle, by the enlightened naturalist". The scientist's proper task is to look for efficient causes, and distinguish them carefully from final causes, although the resolution of the efficient into the final may be the ultimate aim of "Philosophy". He further admitted that the most progress in science has been made when the confusion between the two "has been either precluded by the nature of the science itself, as in pure mathematics, or avoided by the good sense of its cultivator". But there was, nevertheless, a necessity to distinguish the agency of nature from "blind and lifeless mechanism", and to admit the use and even necessity of a teleological ground in physics and physiology, as a regulative principle, "as a ground of anticipation", for the guidance of this judgment, and for the direction of his observation and experiment". Without saying what he was doing, he proceeded to use material directly taken from the "Introduction" to Kant's "Critique of Teleological Judgement". One recalls that Kant had said;²⁷⁹ "So where the structure of a bird, for instance, the hollow formation of its bones, the position of its wings for producing motion and of its tail for steering, are cited, we are told that all this is in the highest degree contingent if we simply look to the nexus effectivus in nature, and do not call in aid a special kind of causality, namely, that of ends (nexus finalis)." Coleridge's version reads:²⁸⁰ "When the naturalist contemplates the structure of a bird, for instance, the hollow cavity of the bones, the position of the wings for motion, and of the tail

for steering its course, etc., he knows indeed that there must be a correspondent mechanism, as the nexus effectivus." Kant's comment then was, "This means that nature, regarded as mere mechanism, could have fashioned itself in a thousand other different ways without lighting precisely on the unity based on a principle like this, and that, accordingly, it is only outside the conception of nature, and not in it, that we may hope to find some shadow of ground a priori for that unity". Coleridge's version of this reads: "But he" (the naturalist) "knows, likewise, that this will no more explain the particular existence of the bird, than the principles of cohesion, etc., could inform him why of two buildings one is a palace, and the other a church." Coleridge commented that even the assumption of the nexus effectivus originated in the mind, as one law under which the manifold can be reduced into unity, and thus be contemplated as one thing, and finally returned to his point about seeing things as "wholes". This time, however, he referred to them as the results of self-organising purpose, with parts as means to ends. Not only the paragraph specially quoted in full, presumably Coleridge's own translation of Kant, but the whole of the sense of this passage is derived from the third Critique, and in Coleridge's own text, is without acknowledgement as such.

To return to the original paragraph of the Friend under discussion, one notes there some features of a "Leibnizian" theology, though with a Coleridgean "correction" - the relation of this theology to the doctrine of the Incarnation. One recalls that in his summary of the Theodicy Leibniz had there thought of the creation in relation to the incarnation, for which he was at that point particularly, commended by Barth (and

there was a glance at the point in the body of the Theodicy). It would be tempting to suppose that Coleridge had picked this point up from Leibniz, except that in the context in which it is placed in the Friend it does not seem that Coleridge was concerned with any attempt to deal with the issue of evil, although it was raised in the third Critique. He is just as likely to have picked up the point from his reading of other theologians, as J. R. Barth indicates,²⁸¹ so the comparison with Leibniz cannot be pressed. And the following paragraph in the Friend²⁸² reveals that the determining context was not "theodicy", but the kind of thesis met with in the Theory of Life:

If then in all inferior things from the grass on the house-top to the giant tree of the forest, to the eagle which builds in its summit, and the elephant which browses on its branches, we behold - first, a subjection to universal laws, by which each thing belongs to the Whole, as interpenetrated by the powers of the Whole; and, secondly, the intervention of particular laws by which the universal laws are suspended or tempered for the weal and sustenance of each particular class, and by which each species, and each individual of every species, becomes a system in and for itself, a world of its own - if we behold this economy everywhere in the irrational creation, shall we not hold it probable that a similar temperament of universal and general laws by an adequate intervention of appropriate agency, will have been effected for the permanent interest of the creature destined to move progressively towards that Divine idea which we have learnt to contemplate as the final cause of all creation, and the centre in which all its lines converge?

It is also of course necessary to remember that Coleridge had temporarily placed an embargo on a discussion of the metaphysical origin of evil thus repudiating Leibniz' distinctive attempt to cope; and that he had found Kant's reaction in terms of "stoicism" unacceptable. He had learned from Kant to focus the issue of evil in terms of man's moral being, rather than in terms of nature, but as the passage from the Friend which reflects the 1791 essay on theodicy showed, he wanted in effect to correct Kant at this point. He wanted to say that there was a

solution for "reason" in Christian theology. He had to take incarnation and redemption seriously - perhaps another reason why he came to find the Theory of Life unsatisfactory. If he were to relate redemption to nature he would perhaps have had to develop a "cosmic Christology", or as J.R. Barth put it,²⁸³ an understanding of "the doctrine of the Mystical Body of Christ", which seems to have become important to him in the last years of his life.

One may say in conclusion that Coleridge represented in his work, an overall confidence in God, in his dealings with man in nature. His words at his death-bed are reported to have been:²⁸⁴

And be thou sure in whatever may be published of my posthumous works to remember that first of all is the Absolute Good whose self-affirmation is the 'I am', as the eternal reality in itself, and the ground and source of all other reality. And next, that in this idea nevertheless a distinctivity is to be carefully preserved, as manifested in the person of the Logos by whom that reality is communicated to all other beings.

He had found something important in his reading of Leibniz and Kant.

One recalls his comment on the Theodicy, that its doctrine was "that the system of the Universe demanded not only the full acquiescence of the Judgment in its perfection, but likewise the deepest devotion of Love & Gratitude."²⁸⁵ The way in which he maintained an outlook which could be described as optimistic may have been important and useful to those who read him.

As we have seen, Coleridge did not attempt to transmit the work of the philosophers and theologians he read, in and for itself. He was not, after all, writing "history of philosophy". When he found what seemed to him to be an appropriate vocabulary and range of interest, he used

the material at certain points as though it were in fact his. He may no longer have remembered that he had derived it from another author, and if he had an exceptional memory might well have assimilated material almost without knowing it. Whatever the case, his contemporaries were not charitable to him on this score.²⁸⁶ As a result of his reading, when one compares his writing with that of Paley and Brougham, for example, his work clearly exhibits a considerable change from the character of their writing. He had a freedom and an originality in his theological thinking which was not found in his immediate predecessors, if these mentioned are fairly representative. Perhaps precisely because his writing was so "different", he was less influential than he might have been. To the extent that he was familiarising English readers with Kant's kind of vocabulary and thinking, albeit turned to his own purposes, and frequently unacknowledged as Kant's, one must credit him with an important influence in general, - even if it was not an influence which helped to change significantly the method of approach to the topic of theology derived from nature. Even the fact that his prose writings were not on the whole well received need not invalidate that judgement, since his correspondence and conversation employed his typical theological stances. With this in mind, it may be illuminating to note the remark of Edward Bulwer, later Lord Lytton, written in 1824, when he was twenty-one, in his "History of the British Public".²⁸⁷

If no Kants, Schellings, or Hegels, agitate the intellect of our Universities, still the leading conceptions and most valuable propositions, even of these philosophers, are perhaps less generally taken up into the actual life and working intelligence of the ordinary German Public than into those of large numbers of Englishmen who, in all probability, have never surmised the existence of their systems, or heard of their names. Through their influence upon the minds and works of the few English

writers who have taken them into their own theories or sentiments about human destinies or relations, these ideas work indirectly over a wider field of social activity: and I have heard an English mechanic talk pure Kantian philosophy without the least suspicion of the sources whence it had flowed into his mind.

Of course, whatever the state of familiarity with some of the terminology of Kant, with or without the mediation of Coleridge, the issue remains - whether those who were to develop with supporting "evidence" a new way of looking at the natural order, would learn in time a Kantian detachment about what they had to say, such that the theological problems involved could be handled with calm, if not with ease. It would seem that no one had time to learn Kant's particular ruse for coping with theodicy, so that theodicy remained, or was destroyed, on the basis of the Paleyan scheme, or some extrapolation of it. On this point, Coleridge failed to offer guidance which was coherent and readily available, about what could be said about nature and a theodicy related to it.

Finally, one must observe that after the early attempts to find out what Kant had to say a serious interest in Kant's work flagged, until attention was given once again primarily to his first Critique. Even then, the "philosophers" establishing a new way of looking at things either did not read that Critique, or did not see the point of it for their own activity. Attention may now be given to those who formed the new conception of things, without the assistance of the great German philosophers. This conception was formed within the tradition of the naturalists who had assimilated Linnaeus' work for their own practical and scientific purposes, without a concern for

other possible implications, as for example, Kant had seen them. Of more significance than anything written by Leibniz or Kant in the public mind was Robert Chamber's Vestiges of Creation in the period leading up to the publication of the Origin. And yet, after 1859, T.H. Huxley and J.S. Mill in their different ways, reacting in part to their reading of Kant and Leibniz respectively, came to see that some fundamental thological problems including that of theodicy remained, whatever the pattern of explanation for the natural order that was adopted.

Coleridge

- 1 E.L. Griggs, ed., Collected Letters of S.T. Coleridge, Oxford : Clarendon, 1956-1971, 677f. Cited as Griggs, Letters.
- 2 Ibid., 1, 125f. Cf. Wollheim, Hume, pp. 182-4
- 3 W. Jackson Bate, Coleridge, London : Weidenfeld & Nicolson, 1969, p.31. Cited as Bate, Coleridge. Cf. J.A. Appleyard, Coleridge's Philosophy of Literature: The Development of a Concept of Poetry, 1791-1819, Cambridge, Mass: Harvard U.P., 1965, p.9.
- 4 Griggs, Letters, IV, 892-3. Cf. II, 947f.
- 5 K. Coburn, ed., The Philosophical Lectures of S.T. Coleridge, London: Pilot Press, 1949. Cited as Coleridge, Phil. Lectures.
- 6 Griggs, Letters, IV, 917.
- 7 Ibid., 7881. Cf. Phil. Lectures, p.66-68.
- 8 Coleridge, Phil. Lectures, K. Coburn's "Introduction", p.48.
- 9 John Stuart Mill's Philosophy of Scientific Method, ed. E. Nagel, New York: Hafner, 1950, p.13. Cited as Nagel/Mill, Philosophy.
- 10 Coleridge, Phil. Lectures, K. Coburn's "Introduction", p.51. Hazlitt published anonymously, in 1805, (having begun the work originally in 1796), An Essay on the Principles of Human Action. Being an Argument in favour of the Natural Disinterestedness of the Human Mind, to which are added, some remarks on the Systems of Hartley and Helvetius, London: J. Johnson. This work contains, for example, a brief discussion on the objects of good and evil, p.51f, and a theory that self-love can be deduced from man's desire for happiness and fear of pain. Rousseau seems to be the only Continental philosopher Hazlitt was prepared to discuss apart from Helvetius. There is a brief discussion of the principle of causality, p.215f, particularly on the point that "the fewest causes possible are to be admitted." Hazlitt maintained that this was a kind of explanation not to be used carelessly - causes must not be added gratuitously, but "where supposed causes actually exist, and have an obvious connection with certain effects, why deprive any of these causes of the real activity which they seem to possess to make some one of them reel and stagger under a weight of consequences which nature never meant to lay upon it?" Hazlitt's son edited and published in 1835 a new version of Hazlitt's work, Essays on the Principles of Human Action: on the Systems of Hartley and Helvetius and on Abstract Ideas, London: Miller. As the title might suggest, this time Hazlitt considered Hume's views on the subject, and he also included some remarks on Berkeley, and on Butler's Sermons. It may be that this version represented the subject matter of his 1812 London lectures. Hazlitt's abilities as a philosopher are also represented by his Reply to the Essay on Population, London: Longmans etc. 1807 (cf. esp. p.17-18 for his comments on the abilities of the English as

philosophers, as an introduction to his attack on Malthus) and by his later attacks on the work of Coleridge.

- 11 W. Enfield, The History of Philosophy, from the Earliest Times to the beginning of the present century; drawn up from Bruckner's Historia Critica Philosophiae, London: J. Johnson, 1791. Cited as Enfield, History. Cf. Griggs, Letters, IV, 589 and 592.
- 12 Enfield, History, I, ix.
- 13 Ibid., I, 38f.
- 14 Ibid., II, 479.
- 15 Ibid., II, 480.
- 16 Ibid., II, 556-565.
- 17 Ibid., II, 560-1.
- 18 Ibid., II, 563.
- 19 S.T. Coleridge, Aids to Reflection in the Formation of a Manly Character on the several Grounds of Prudence, Morality and Religion; illustrated by select passages from our elder divines, especially from Archbishop Leighton, London: Taylor & Hessay, 1825, p.231-2, Bayle on "Simonides" for example. Cited as Coleridge, Aids. Cf. T. McFarland, Coleridge and the Pantheist Tradition, Oxford: Clarendon, 1969, p.362f. for Coleridge's discussion and use of Bayle's article on "Spinoza". Cited as McFarland, Coleridge.
- 20 Coleridge, Phil. Lectures, p.67.
- 21 Griggs Letters, IV, 889, Cf. V, 26.
22. Ibid., V, 87, and cf. 220.
- 23 S.T. Coleridge, Biographia Literaria, J. Shawcross ed., Oxford: Clarendon, 1907. Cited as Coleridge, Biographia.
- 24 Griggs, Letters, IV, 657f.
- 25 Ibid., V, 197f shows that Coleridge was taken with the idea of writing something inspired by Leighton as early as 1822. Cf. p.290 and p.336f.
- 26 S.T. Coleridge, Hints towards the formation of a more comprehensive Theory of Life, S.B. Watson, ed., London: J. Churchill, 1848. Cited as Coleridge, Theory of Life. Cf. S.G. Barnes, "Was Theory of Life Coleridge's 'Opus Maximum'?", Studies in Philology, IV, (1958), 494-54.
- 27 Griggs, Letters, IV, 690.
- 28 Ibid., V, 304.

- 29 J.D. Boulger, Coleridge as a Religious Thinker, New Haven: Yale U.P., 1961 Ch. I. Cited as Boulger, Coleridge. Cf. S.T. Coleridge, Notes, Theological Political and Miscellaneous, ed. D. Coleridge. London: Moxon, 1853, p.118. Cited as Coleridge, Notes.
- 30 Griggs, Letters, I, 385-6. Cf. II, 703, where he described Butler as one of the three great metaphysicians produced in this country.
- 31 Cambridge Essays contributed by Members of the University, London: Parker, 1856, F.J.A. Hort on "Coleridge", p.336. Hort was mistaken in thinking that Coleridge showed no acquaintance with Butler. Hort perhaps indicates why Coleridge would not display such an acquaintance when Hort praises Butler's Stoicism, and criticises Coleridge's Platonism. He understood Coleridge's position to be that man lived under a political rather than a cosmical order.
- 32 Griggs, Letters, I, 578, on "young Dissenters" being "prone to Infidelity" partly because of their "reading Hume and such like trash". Cf. IV, 758: "it did not require the subtlety of Hume's Logic to demonstrate, that no cement can hold together Pious conclusions and Atheistic premises." Cf. S.T. Coleridge, Notebooks, K. Coburn ed., London: Routledge & Kegan Paul, 1957-, III, 3869: "It is a duty, which we owe to Truth, to distinguish Spinoza from the Voltaires, Humes, and the whole mob of popular Infidels." Cited as Coleridge Notebooks, and by note number. Cf. Griggs, Letters, I, 588; II, 701 - on miracles; and Coleridge, Notes, p.365 and p.377; Letters, II 681, 1194 on "ideas". And Letters I, 478-9, compare with D. Hume, Abstract of a Treatise of Human Nature, J.M. Keynes and P. Sraffa, eds., Cambridge: C.U.P., 1938, p.7-8. Coleridge wrote to a friend in 1799 to console him on the death of one of his children: "La nature, (says Pascal) 'La Nature confond les Pyrrhoniens, et la raison confond les Dogmatistes. Nous avons une impuissance à prouver, invincible à tout le Dogmatisme: nous avons une idée de la vérité, invincible à tout le Pyrrhonisme; I find it wise and human to believe, even on slight evidence, opinions, the contrary of which cannot be proved, and which promote our happiness without hampering our Intellect.'"
- 33 Coleridge, Biographia, I, 191.
- 34 Coleridge, Phil. Lectures, p.202, and p.248.
- 35 S.T. Coleridge, Lectures 1795 on Politics and Religion, L. Patten and P. Mann eds., London: Routledge & Kegan Paul, 1971, p.8-9. Cited as Coleridge, Lectures 1795.
- 36 Ibid., p.92-3. Cf. Aids, p.257.
- 37 Coleridge, Biographia, I, 180. S.T. Coleridge, Biographia Literaria, or, Biographical Sketches of my Literary life and opinions, and two Lay Sermons, London: Bell, 1905. No. II, of 1817, "Blessed are ye that sow beside all waters", p.381, the last paragraph of the "Introduction". Cited as Lay Sermons.

- 38 Griggs, Letters, I, 538. Cf. Coleridge's comment on Hume's Natural Religion, Phil. Lectures, p.181.
- 39 Griggs, Letters, I, 517. Cf. Coleridge, Notebooks, I, Coburn on 393.
- 40 Griggs, Letters, I, 518.
- 41 Ibid., p.559.
- 42 Ibid., II, 1026-7.
- 43 Bonar, Malthus, p.371, p.376f.
- 44 Griggs, Letters, II, 1191.
- 45 Ibid., IV, 554: V, 442. Coleridge, Notebooks, III, 4183.
- 46 Coleridge, Notebooks, II, 2598. Cf. S.T. Coleridge, The Friend, ed. B.E. Rooke, London: Routledge & Kegan Paul, 1969, I, 108, (of the 1818 edition). Cited as Coleridge, Friend.
- 47 Griggs, Letters, I, 214.
- 48 Coleridge, Notebooks, I, 1646. Cf. Theory of Life, p.74-5, on some useful notions drawn from the work of "our late poetical and theoretical brother", and H. Piper, "The Pantheistic Sources of Coleridge's Early Poetry", Journal of the History of Ideas, XX, (1959), 47-59.
- 49 Griggs, Letters, I, 177.
- 50 Coleridge, Notebooks, I, Coburn's notes on 243.
- 51 Griggs, Letters, I, 177. Cf. S.T. Coleridge, Notes on Church Divines ed. D. Coleridge, London: Moxon, 1853, I, 129. Cited as Coleridge, Church Divines.
- 52 Coleridge, Phil. Lectures, p.213, and p.419.
- 53 Griggs, Letters, I, 256.
- 54 Ibid., p.294.
- 55 Coleridge, Phil Lectures, p.248-9, and p.429-30. Cf. Aids, p.328-9, and Theory of Life, p.34, p.41, p.43.
- 56 Griggs, Letters, V, 47, 49f. Cf. Aids, p.234.
- 57 C.D. Darlington, Darwin's Place in History, Oxford: Blackwells, 1959, p.100f. Cited as Darlington, Darwin.
- 58 Ibid., p.22.
- 59 L. Huxley, ed., The Life and Letters of T.H. Huxley, London: Macmillan, 1903, I, 257. Cited as Huxley, Life and Letters.

- 60 Griggs, Letters, IV, 574. Cf. VI, 723.
- 61 Coleridge, Phil. Lectures, p.239..
- 62 A.D. Snyder, S.T. Coleridge's Treatise on Method, London: Constable, 1934, p.20. Cited as Snyder, Method.
- 63 Griggs, Letters, V. 202.
- 64 Ibid., p.16 and p.197.
- 65 Ibid., VI, 691, cf. V, 486.
- 66 J.R. Barth, Coleridge and Christian Doctrine, Cambridge, Mass: Harvard U.P., 1969, p.6. Cited as Barth, Coleridge. Cf. in Coleridge's Lectures 1795 p.93-4, the employment of the same material from the works of MacLaurin that Hume employed on the lips of Cleanthes. Wollheim, Hume, p.128. And in Griggs, Letters, VI, 595, a "Paleyan" argument: "The Larva of the Stag-beetle lies in it's Chrysalis like an infant in the Coffin of an Adult, having left an empty space half the length, it occupies - and this space is the exact length of the Horn that distinguishes the perfect animal, but which, when it constructed it's temporary Sarcophagus, was not yet in existence. Do not the Eyes, Ears, Lungs of the unborn Babe give notice and furnish proof of a transuterine, visible, audible, atmospheric world?" Cf. Coleridge, Notes p.248-9.
- 67 Coleridge, Notebooks, I, 161.
- 68 Griggs, Letters, II, 954. Cf. Aids, p.397.
- 69 Griggs, Letters, III, 129.
- 70 Ibid., II, 216-240. Cf. Coleridge Aids, p.266.
- 71 Griggs, Letters, II, 1189.
- 72 Ibid., III, 216. Cf. Coleridge, Friend, I, 398, and Notes, p.348.
- 73 Griggs, Letters, II, 1189, Cf. Coleridge, Aids, p.343 and p.398, and Church Divines, II, 298-9.
- 74 Coleridge, Phil. Lectures, p.374.
- 75 Wollheim, Hume, p.154.
- 76 Coleridge, Phil. Lectures, p.460-1. Cf. Barth, Coleridge. p.96-7 for some other references.
- 77 W.G. Tennemann, A Manual of the History of Philosophy, trans. I.A. Johnson, Oxford, 1832, was reviewed in Edinburgh Review, LVI, (1832), 60-177, by Sir William Hamilton. Tennemann's History was an 11 volume work.

- 78 Coleridge, Notebooks, III, 3925. Cf. Coleridge, Church Divines, I, 108.
- 79 Griggs, Letters, IV, 760.
- 80 Ibid., p.768. Cf. Coleridge, Notebooks, III, 4408, on the wretchedness of a system which leaves out God's omnipresence and uses him for a mere punctum inceptivum, and also 4418 on Gen. 1, 1, "God the absolute Beginner of all things - not of their own form, and relations alone, but of their very Being." Cf. Aids, p.397, for a comment on mis-interpreting "omnipresence", and Phil. Lectures, p.330.
- 81 Coleridge, Biographia, II, note on p.59. Cf. Aids,^{p.396,} defining omnipresence as "the presence of all things to God!"
- 82 Griggs, Letters, V, lvii f; and 333f, note - Coleridge wanted to place "in a clear light, the principle which pervades all Leighton's writings - his sublime View, I mean, of Religion and Morality as the means of reforming the human soul in the Divine Image (Idea)".
- 83 Barth, Coleridge, p.6.
- 84 Griggs, Letters, I, 114. Cf. Coleridge, Phil. Lectures, p.204; J.B. Beer, Coleridge the Visionary, London: Chatto & Windus, 1959 p.88-99.
- 85 Griggs, Letters, I, 145. Cf. p.159, p.168, p.192, p.205.
- 86 Coleridge, Notebooks, I, 11.
- 87 Coleridge, Lectures 1795, p.104-5. Cf. Biographia, I, 136, and Friend, I, 318, "If we believe in a scheme of Providence, all actions alike work for good. There is not the least ground for supposing that the crimes of Nero were less instrumental in bringing about our present advantages than the virtues of the Antonines." Cf. Church Divines, I, 78-79, on the devil as "the drudge of all good."
- 88 Coleridge, Lectures 1795, p.105-6. Cf. "Introduction", p.lxiii.
- 89 Coleridge, Phil. Lectures, p.250. Cf. Aids, p.137, and I. Murdoch, Sovereignty, p.84-5.
- 90 Griggs, Letters, I, 154. Cf. p.364-5, p.396. Cf. Coleridge, Lay Sermons, No. I, of 1816, p.344f.
- 91 Coleridge, Lectures 1795, p.94.
- 92 Coleridge, Notebooks, III, 4319.
- 93 Ibid., 4333. Cf. 4351, and Theory of Life, p.67, p.70-71.
- 94 Coleridge, Notebooks, III, 4432.
- 95 Ibid., 4437.
- 96 Ibid., I, 161.

- 97 Bate, Coleridge, p.59.
- 98 Coleridge, Biographia, I, 169. (Cf. the Biographia, I, 194 on Bishop Taylor, and p.137f and p.167f). McFarland, Coleridge, p.136, showed how this whole passage is largely from Leibniz' "Clarification" for Bayle of points found in the new system of the union of the soul and body of 1678. McFarland, p.xxvi, makes some interesting points of comparison between Leibniz and Coleridge, and on p.144 in particular has an interesting "defence" of Coleridge drawn from his understanding of Leibniz. If having a "system" meant publishing a complete statement of a position, the question might be asked why Leibniz, or for that matter, Plato, never completed theirs.
- 99 Coleridge, Notebooks, III, 3824. Cf. McFarland, op.cit., p.50, quotes Schelling's Werke, I, 457-8: "In order to find what Leibniz found, that what is really philosophical in the most contradictory systems is also true, one must have before his eyes the idea of a universal system that gives all separate systems, however opposed they may be, connection and necessity in a system of human knowledge itself." Cited as McFarland, Coleridge.
- 100 Coleridge, Notebooks, III, 3825.
- 101 Griggs, Letters, I, 472. Cf. on Kant, IV, 792 of 1817: "I reverence Immanuel Kant with my whole heart and soul, and believe him to be the only Philosopher, for all men who have the power of thinking. I cannot conceive the liberal pursuit or profession, in which the service derived from a patient study of his works would not be incalculably great, both as cathartic, tonic and directly nutritious." On Coleridge's varying opinions of Kant, perhaps the most perceptive comments are those of D.M. MacKinnon, in the essay "Coleridge and Kant", pp.183-204, of J. Beer, ed., Coleridge's Variety: Bicentenary Studies, London: MacMillan, 1974. Cited as Beer, Coleridge.
- 102 Griggs, Letters, I, 431-2, and 266-7; cf. VI, 921, of 1832, on the death of a friend: "Whether his life be hidden in God, in the eternal Only-begotten, the Pleroma of all Beings, and 'the Habitation' both of the Returned and the Retrieved, there in a blessed and most divine Slumber to grow and evolve into the perfected Spirit - for Sleep is the appointed Season of all Growth here below, and God's Ordinances in the Earthly may shadow out his ways in the Heavenly - in either case, our Friend is in God, and with God. Were it possible for me even to think otherwise, the very Grass in the fields would turn black before my eyes, and Nature appear as a Skeleton fantastically mossed over beneath the weeping vault of a charnal House."
- 103 Coleridge, Aids, p.153-4, on writers who supported "the Necessitarian Scheme, and made the relation of Cause and Effect the Law of the Universe, subjecting to its mechanism the moral world no less than the material or physical. It follows, that all is Nature. Thus, though few writers use the term Spirit more frequently, they in effect deny its existence, and evacuate the term of all its proper meaning. With such a system not the wit of man nor all the Theodices ever framed by human ingenuity before and since the attempt of the celebrated Leibnitz, can reconcile the Sense of Responsibility, nor the fact of the difference

- in kind between REGRET and REMORSE." Cf. p.68-9; p.394 - Paley's point, though Coleridge does not acknowledge that he shared it with him: "For as a Law without a Law-giver is a mere abstraction; so a Law without an Agent to realize it, a Constitution without an abiding Executive, is, in fact, not a Law but an Idea! In the profound Emblem of the Great Tragic Poet, it is the powerless Prometheus fixed on a barren Rock." Cf. Coleridge, Church Divines, I, 10-11.
- 104 Griggs, Letters, II, 697.
- 105 Coleridge, Phil. Lectures, p.380.
- 106 Griggs, Letters, II, 702.
- 107 Coleridge, Biographia, I, 89, and cf. Aids, p.394; Notebooks, III, 3757; and A. Farrer, Reflective Faith, London: S.P.C.K., 1972, p.84. Cited as Farrer, Reflective Faith.
- 108 Griggs, Letters, II, 702-3; Coleridge, Notebooks, III, 3321.
- 109 Coleridge, Notebooks, II, 2442; and III, 3587.
- 110 Griggs, Letters, II, 747.
- 111 Coleridge, Notebooks, I, 1622, and cf. Leibniz, Theodicy, p.277.
- 112 Griggs, Letters, II, 1036.
- 113 Ibid., p.1053.
- 114 Coleridge, Notebooks, II, 1993. Coburn's notes indicate that Coleridge had read the Theodicy in French and in a German translation of 1763. Cf. Griggs, Letters, IV, 851. One copy of a German translation was lent to him by de Quincey, whom Coleridge knew from about 1807 onwards, and who was himself important for fostering interest in Kant in England. Cf. R. Wellek, Confrontations: Studies in the Intellectual and literary Relations between Germany, England and the United States during the Nineteenth Century, New Jersey: Princeton U.P., 1965, p.119, note 23. Cf. Coleridge, Notebooks, III, 4039, and 4275.
- 115 Griggs, Letters, V, 444; and 332. Cf. Barth, Coleridge, p.102, for material from the "Opus Maximum" on the divine ideas.
- 116 Coleridge, Aids, p.249 and Church Divines, I, 47-48; 259-260. Cf. McFarland, Coleridge, p.372, and J.H. Muirhead, Coleridge as Philosopher, London: Allen & Unwin, 1930, pp.236-244 on the development of Coleridge's theory of evil in the "Opus Maximum". Cited as Muirhead, Coleridge. E. Blunden and E.L. Griggs, eds., Coleridge: Studies by Several Hands on the Anniversary of his Death, London: Constable, 1934, includes an essay by J.H. Muirhead, "Metaphysic or Mystic". pp.177-199, with comments on the work of Wellek and Winkelman.

- 117 Coleridge, Aids, p.218; cf. Biographia, I, 93, "nil in intellectu quod non prius in sensu praeter ipsum intellectum", -yet I, 180, Schelling's warning about degenerate disciples of Kant and Leibniz, and his remark that a doctrine passed down through many hands ends as flat wine.
- 118 Griggs, Letters, IV, 953.
- 119 Coleridge, Biographia, I, 136; 195. Cf. Wiener, Leibniz, p.145 and p.130. The same references to Leibniz found in the Biographia re-appear in the Phil. Lectures, p.383; and cf. Aids, p.202 and p.218.
- 120 Coleridge, Biographia, I, 85. Cf. Notebooks, III, 4237, 4455. For the imagery of the "ladder" and the lex continui, Griggs, Letters V, 296, and VI, 561. Cf. Notebooks, III, 4109, on the "chain of being" as an expression of "necessity".
- 121 Griggs, Letters, IV, 769. Cf. p.804f, and Barth, Coleridge, p.137.
- 122 Coleridge, Phil. Lectures, p.380f.
- 123 Coleridge, Biographia, I, 136, 195 - straight references to Leibniz, without discussion.
- 124 Griggs, Letters, V, 422. Cf. I, 590, and Notebooks, III, 4357, 4180, and Griggs, Letters, IV, 887, and Coleridge, Friend, I, 475 and G.N. Orsini, Coleridge and German Idealism, U.S.A.: Southern Illinois U.P., 1969, p.231. Cited as Orsini, Coleridge.
- 125 F. Copleston, A History of Philosophy, New York: Image, 1963, VII; I, 142. Cf. E. Mendelsohn, "The Biological Sciences in the Nineteenth Century: Some Problems and Sources", History of Science, III, (1964) 39-59. Cf. Lovejoy, Chain, p.317f, and J. Benziger, "Organic Unity: Leibniz to Coleridge", Publications of the Modern Language Association of America, LXVI, (1951), 24-48.
- 126 Griggs, Letters, IV, 664, though cf. 654f; 668. Orsini, Coleridge, p. 192f provides perhaps the best account of Coleridge's dependence on Schelling, both for the Biographia, p.192f, and the Theory of Life, p.229f. On p.219-20 Orsini writes, "The fact that Coleridge incorporated so much of Schelling in his own book, either by translation or adaptation, simply means that, at that time, he accepted Schelling's arguments and adopted his philosophy. The frequent explanatory interpolations, the expansions and exemplifications, all go to show Coleridge's participation in the theory and his desire to present it to the reader in the most persuasive way. His own examples ... are brilliant contributions to the discussion, and so are the additional arguments which he inserts. At this time, Coleridge was an absolute or transcendental idealist. Historically, this is more than remarkable. It is a unique phenomenon in early nineteenth-century England, which has not yet been completely recognised even by historians of philosophy." Orsini points out that Coleridge rejected Schelling's idealism as pantheistic, and refers, p.221 to Schelling himself having defended Coleridge from the charge of plagiarism on the grounds of congeniality.

- 127 Griggs, Letters, IV, 792-3; cf. 775, and Coleridge, Phil. Lectures p. 427, notes.
- 128 Griggs, Letters, IV, 873 f.
- 129 Coleridge, Biographia, I, 102, especially as he there maintained his essential independence of Schelling.
- 130 N. Fruman, Coleridge, The Damaged Archangel, London: Allen & Unwin, 1971, p.216. Cited as Fruman, Coleridge. Cf. Bate, Coleridge, p.194; M.H. Abrams, "Coleridge and the Romantic Vision of the World", pp.101-133, in Beer, Coleridge; and D. Emmet, "Coleridge and Philosophy", in R.L. Brett, ed., Writers and their background: S.T. Coleridge, London: G. Bell, 1971, p.214: "True, he was on the look-out for unifying principles behind distinct and apparently opposed appearances, and this may sound more like metaphysics than science. But here he had inklings of a more sophisticated view of science than the simple inductivism of his empiricist contemporaries." Similarly, D. Emmett, "Coleridge on Powers in Mind and Nature", pp.166-182, of Beer, Coleridge. But Orsini, Coleridge, p.232: "The main fallacy of Naturphilosophie from the point of view of modern critical idealism is that the concepts of the natural sciences cannot be reduced to mental concepts, or philosophical universals, nor can they be brought by a device of dialectic into a single system with them, since the concepts of science are empirical or pseudo-concepts, as Croce called them, and the concepts of the philosophy of Spirit are speculative and universal." Cf. J. Needham, "Coleridge as a Philosophical Biologist", Science Progress, XX, (1926), 692-702, and especially on this point in particular, p. 701.
- 131 Boulger, Coleridge, p.231. Cf. Coleridge, Friend, I, 473-4; 493.
- 132 Muirhead, Coleridge, p.132.
- 133 Fruman, Coleridge, p.129.
- 134 Bate, Coleridge, p.137-8, and Coleridge, Phil. Lectures, Ms. Coburn's "Introduction", p.62. "He could not deal adequately with Schelling, for whom he had expressed high enthusiasm in private and in print, nor with Kant, about whom he had always been more reserved, because he was changing his mind about them."
- 135 Griggs, Letters, IV, 956; Coleridge, Aids, p.393; Biographia I, 99. Cf. L.P. Williams, "Kant, Naturphilosophie and Scientific Method", pp.13-22 of R.N. Giere and R.S. Westfall eds., Foundations of Scientific Method: The Nineteenth Century, Bloomington: Indiana U.P., 1973. Cited as Giere/Westfall, Foundations.
- 136 Farrer, Reflective Faith, p.83-4.
- 137 Barth, Protestant Theology, p.78. Cf. Griggs, Letters, IV, 750-1; 771f.
- 138 Griggs, Letters, IV, 790; 864. Cf. Aids, p.393, note.
- 139 Coleridge, Theory of Life, p.35-6.

- 140 Coleridge, Aids, p.257-8. Cf. p.393, on the Cartesian "lifeless machine", as an alternative to a world created and filled with "productive forces" by the Almighty Fiat. And McFarland, Coleridge, p.230 quoting Coleridge's words about "the chain of which Christ is the staple and staple ring", and Coleridge, Notes, p.25-6.
- 141 Coleridge, Theory of Life, p.36-7.
- 142 Coleridge, Aids, p.257-8, note.
- 143 Coleridge, Theory of Life, p.37. Griggs, Letters, VI, 595, and cf. Coleridge, Friend, I, 466.
- 144 Coleridge, Theory of Life, p.37-8, note. Cf. Snyder, Method, p.22-3.
- 145 Coleridge, Theory of Life, p.38.
- 146 Ibid., p.39.
- 147 Ibid., p.40, note, and cf. p.71.
- 148 Ibid., p.41, and cf. p.70.
- 149 Ibid., p.42, and p.44-5.
- 150 Coleridge, Biographia, II, 230. Cf. Aids, p.158, on Leighton, who had employed himself in making his readers feel that certain doctrines, "scripturally treated", could be taken "as co-organized parts of a great organic whole."
- 151 Coleridge, Aids, p.121. Cf. p.347, and Friend, I, 459 on the law, "which in its absolute perfection, is conceivable only of the Supreme Being whose creative IDEA not only appoints to each thing its position, but in that position, and in consequence of that position, gives it its qualities, yea, gives it its very existence, as that particular thing."
- 152 Coleridge, Theory of Life, p.47. Cf. p.50-51.
- 153 Ibid., p.48.
- 154 Ibid., p.72.
- 155 Ibid., p.58. Cf. p.72.
- 156 Ibid., p.74. Cf. Aids, p.238, "But no sooner have we passed the borders, than endless variety of forms and the bold display of instincts announce, that Nature has succeeded."
- 157 Coleridge, Theory of Life, p.50. Cf. Griggs, Letters, IV, 690.
- 158 Coleridge, Theory of Life, p.51.
- 159 Ibid., p.70.
- 160 Ibid., p.80.

- 161 Ibid., p.49, and cf. p.86-7, and Notebooks, III, 3941.
- 162 Coleridge, Theory of Life, p.58, Cf. Aids, 347; Brett, Coleridge, p.2-3; and Snyder, Method, p.8-9, and in particular the "Limmaean" point that "there is scarcely anyone of the powers or faculties with which the Divine Goodness has endowed his creatures, which may not in its turn be a source of paramount benefit and usefulness; for every thing around us is full of blessing."
- 163 Coleridge, Aids, 391. Cf. Leibniz, Theodicy, Farrer's "Introduction", p.134.
- 164 Coleridge, Theory of Life, p.68.
- 165 Griggs, Letters, IV, 773. Cf. Craig, W. Miller, "Coleridge's Concept of Nature", Journal of the History of Ideas, XXV, (1964), 77-96, p.86; and M.H. Abrams, "Coleridge and the Romantic Vision of the world", in Beer, Coleridge, p.130-131, on "symbol".
- 166 Coleridge, Theory of Life, p.67.
- 167 Ibid., p.73.
- 168 Ibid., p.75.
- 169 Ibid., p.82-3.
- 170 Ibid., p.84.
- 171 Coleridge, Aids, p.240-1. Cf. p.85 and p.93, and Notebooks, III, 3339.
- 172 Coleridge, Aids, p.132; and 343-4.
- 173 Coleridge, Theory of Life, p.85.
- 174 Ibid., p.87.
- 175 Coleridge, Phil. Lectures, p.273-5. Cf. Aids, p.343-4.
- 176 Griggs, Letters, V, 18. Cf. IV, 871: "Query. Whether the book of Genesis from the creation to the Deluge does not permit, so far as not to preclude, the notion of the possibility, that the carnivorous animals were posterior to the Deluge? I confess, that the ape, cat, lupine tribes, etc, have often appeared to me - a superaddition to the animal creation, destined only for a given period."
- 177 Haywood, An Analysis of Kant's Critick of Pure Reason, London: Pickering, 1844.
- 178 Ibid., p.179-185.
- 179 Ibid., p.179.

- 180 Kant/N.K.S., Critique, p.548. Cf. A Commentary on Kant's Critick of Pure Reason, translated from the History of Modern Philosophy by Kuno Fischer, trans. J.P. Mahaffy, London: Longman, Green, 1866. (Mahaffy's own Introduction, p.iii f, drew attention to Leibniz' discussion of a priori explanation and the discovery of Kant's work by Mill, Mansel and Hamilton). P.270f of the actual commentary, is on the relevant section of Kant, and p.272f, has the concluding remark: "If this view of the world were a dogmatical one, and the system of our concepts and cognition were at the same time the system of things, or the objective constitution of the world, then the world would be a continuous gradation of things, summated in the Deity as its highest and absolute unity; then everything would be an animated being, and the world a connected whole, with God as its highest and first cause. Then would the psychological, cosmological, and theological Ideas be objective, and Leibniz' view of the world be justified. But it is simply a critical view. It is not the system of things, but of our cognitions. It is altogether subjective, yet not therefore a capricious, but a necessary maxim-..." And on p.273, Ideas are "the arms and models of our concepts", not concepts and patterns of things.
- 181 Henry, Lord Brougham, Dissertations on Subjects of Science connected with Natural Theology: Being the concluding volumes of the new edition of Paley's work, London: Knight & Co., 1839. Cited as Brougham, Dissertations.
- 182 See note 74 of the section on Hume.
- 183 R. Morehead, Dialogues on Natural and Revealed Religion, Edinburgh: Oliver & Boyd, 1830.
- 184 Burton, Hume, 1, 331.
- 185 Edinburgh Review, LII, (1830-1831), 109-119.
- 186 Brougham Dissertations, I, vi-vii.
- 187 Ibid., p.vii f. Cf. p.64 f, his discussion of instinct, referring to Newton's work on optics.
- 188 Ibid., 120f, referred to Darwin's Zoonomia.
- 189 Ibid., II, 2.
- 190 Ibid., p.17 f.
- 191 Ibid., p.30.
- 192 Ibid., p.42.
- 193 Ibid., p.53.
- 194 Ibid., p.68.
- 195 Ibid., p.80.
- 196 Ibid., p.113.

- 197 Edinburgh Review, LXII, (1835 - 1836), 265-296, on various books on Cuvier. P.277 f, included the following comments: "Linnaeus was the first naturalist who applied the powers of a methodical and sagacious mind to the classification of organic bodies; while Buffon at once threw around natural history the mantle of poetry and philosophy, and by his animated and picturesque descriptions, his bold and original views, and his rich and powerful eloquence, intrenched it in popular estimation. There was a wide space, however, still left between the orbits in which these two naturalists moved, and a planet of transition was still wanting to occupy the void. Cuvier was the individual who filled up this important blank. Uniting the patient toil, the minute accuracy, and the methodical habits of Linnaeus, with the lofty views, and the gorgeous eloquence of Buffon; and adding to these resources the treasures of universal knowledge, he succeeded in raising natural history to its true place among the sciences; in alluring to its cultivation minds of the highest being; in rendering it accessible and instructive to every class of enquirers, and thus making it the support and handmaid of natural religion... In thus decyphering the handwriting of Nature on her tablets of stone, our author discovered the important fact, that all organised beings were not created at the same period. In the bountiful Commissariat of Providence the stores were provided before the marshalling of the host that was to devour them. Plants were created before animals; the molluscous fishes next appeared; then the reptiles; and last of all, the mammiferous animals completed the scale of living wonders... Cuvier has shown, by unanswerable arguments, that the former could not have been the parent stocks of the present race of animals; and that these differences could not arise from a change of soil or climate, or any other accidental cause."
- 198 Cassirer, Problem of Knowledge, p.134. Cuvier "rejected in a most decided way all the notions that many naturalists had formed - he had in mind particularly Buffon, Bonnet, and Lamarck - of a gradation among living forms that would permit their assembling in one series. Such a sequence might be possible within one definite type, but there was no transition between the various related types. No matter how the vertebrates and invertebrates were arranged, it would never be feasible to place at the end of the one series and the beginning of the other two animals similar enough to serve as a connecting link between these two great classes." Coleridge, Friend, I, 475 note, seems to be aware that Cuvier's methodology and philosophy is not that of France, but seems not to know that it is Kantian - any more than those who thought Cuvier's work gave support to certain kinds of theology, realised it. Cf. Ms. Sarah Lee, Memoirs of Cuvier, London: Longmans, etc., 1833, for Cuvier's own comments on Linnaeus and Buffon, after the style of Kant, (Cuvier had spent the years 1784-88 in Stuttgart learning German) p.135-8; and on the scale of being, again following Kant, whilst yet believing in the harmony of the whole as the creation of a divine author, pp.143-151. Cuvier's work on the Animal Kingdom was first published in Paris in 1817, and an extensive translation and edition by Edward Griffith et al., London: Whittaker, in 16 vols. between 1827-1835.
- 199 Brougham, Dissertation, I 194.

- 200 Ibid., II, 191, 193-5.
- 201 Ibid., p.202.
- 202 Ibid., p.208.
- 203 J.W. Semple, trans., Religion within the Boundary of Pure Reason, Edinburgh: T. & T. Clark, 1838. Cited as Semple, Religion.
- 204 Ibid., p.ix-x.
- 205 J. Mander, Our German Cousins, London:, J. Murray, 1974.
- 206 Ibid., p.32. Cf. a similar comment in D. Emmet, "Coleridge and Philosophy" in Brett, Coleridge, p.203.
- 207 F.A. Nitsch, A General and Introductory View of Professor Kant's Principles concerning Man, the World and Deity, submitted to the consideration of the Learned, London: J. Downed, 1796. Cited as Nitsch, Kant.
- 208 A.F.M. Willich, Elements of the Critical Philosophy, London: Longman, 1798. p.16 lists the works published between 1755-1764; notes are provided on the works of the "critical" period; p.136 lists the essays of 1777-1794, without notes or comments.
- 209 D.M. Knight, Natural Science Books in English, 1600-1900, London: Batsford, 1972, p.75, though Knight is mistaken in describing it as the first introductory work in English.
- 210 Nitsch, Kant, p.3.
- 211 Ibid., p.48.
- 212 Coleridge, Aids, p.243.
- 213 Edinburgh Review, XXII, (1813 - 1814), 198-238.
- 214 Ibid., p.237.
- 215 Edinburgh Review, XXXVI, (1821 - 1822), 247, reviewing Dugald Stewart's "Introduction" for the Encyclopedia Britannica. Cf. The Collected Works of Dugald Stewart, ed. Sir William Hamilton, Edinburgh: Constable, 1854, I, entitled Dissertation: exhibiting the Progress of Metaphysical, Ethical, and Political Philosophy since the revival of Letters in Europe. The first part dated from 1815, and the second part from 1821. Part II, pp.252-286, is concerned with a not wholly unsympathetic account of Leibniz' views; pp.313-324 are on Bayle; pp.389-417 are an inadequate account of Kant's work, followed by three pages on Fichte and Schelling.
- 216 J.W. Semple, trans., The Metaphysic of Ethics, Edinburgh: T. Clark, 1836 p.xx of his "Introduction", on the Leibniz-Clarke discussion, the monadology, and the pre-established harmony; and p.xxi: "since a narrative of the revolutions in philosophical opinion is of value only in so far as it serves to explain the circumstances from which the system of Kant took its rise, it would be quite beside the

- purpose to tarry upon matters so antiquated and exploded as the dreams of Leibnitz", - though Semple realised that the principle of sufficient reason was the groundwork of the main tenets of philosophy in Germany. Cited as Semple, Metaphysics. Cf. however, William Hamilton, Discussions on Philosophy and Literature, Education and University Reform, London: Longmans, 1852, p.82, asking the question, "What in fine, is the doctrine of the two most numerous schools of modern philosophy - the LEIBNITIAN and KANTIAN?".
- 217 G.W. von Leibniz, A System of Theology, trans. C.W. Russell, D.D. (Professor of Ecclesiastical History in St. Patrick's College, Maynooth), London: Burns and Lambert, 1850. The translation had been made in 1841-(Tract XC had recently been published)-but the translator had since seen better editions of the original on the continent - hence the delay whilst the translation was revised for publication. The "Preface", p.vi, dates the finished revision on the Feast of the Assumption, 1850. The Systema Theologicum, had been published in Paris in 1819, then in Mainz in German translation. The work includes, p.xlix f, a long essay on Leibiz' life.
- 218 Ibid., p.cxli.
- 219 Ibid., p.ix f, discusses the "catholic" character of the work and hence the questions which had been raised about its authenticity.
- 220 Nitsch, Kant, p.220.
- 221 Ibid., p.230.
- 222 Ibid., p.133. Cf. note 262 of this section. It is clear that it was Kant's "ethics" which were of primary interest to some of his translators. Semple's translation of the Metaphysics listed as crucial to the Kantian "system" the three Critiques and the Prolegomena; the Groundwork of 1785, the Metaphysical Elements of 1786, and urged, p.viii, that the Religion of 1793 and the Conflict of Faculties of 1798 were also to be read "in intimate connection" with the system of the two later works, for they contained "the germ of RATIONALISM of Germany". It is also interesting to note that Semple was certainly aware (p.xxii) of the nature of Hume's challenge to Anglicanism, and the way in which Kant's stance was developed in the context of the attempt to reply to Hume in Germany.
- 223 Coleridge, Notebooks, I, Coburn's notes on 249, and e.g. British Critic, VIII, (1796), 136-150; The Monthly Review, XXII, (1797), 15-18 urged an "attentive perusal" of Nitsch's work, though thought the latter's attachment to Kant, as that of a pupil to a master, might have biased his judgement.
- 224 ^{Ann.} Memoirs of the late Thomas Beddoes, M.D., in Reports, Papers and Catalogues of the Literary and Philosophical Society of Newcastle-on-Tyne, (1807-8), IV. Cf. J.E. Stock, Memoirs of the Life of Thomas Beddoes, M.D., London : J. Murray, 1811.
- 225 Humphrey Davy himself produced a book which was entitled, Consolations in Travel, or The Last Days of a Philosopher, 5th ed. (first published

in 1830), London: J. Murray, 1851, which concluded, p.294 with the remark, "And, being sure by revelation, that God is omnipotent and omnipresent, it appears to me no improper use of our faculties, to trace even in the natural universe, the acts of his power and the results of his wisdom, and to draw parallels from the infinite to the finite mind ..." For Davy's relationship with Coleridge, see K. Coburn, "Coleridge: A Bridge between Science and Poetry", pp.81-100, in Beer, Coleridge.

- 226 Humphrey Davy, Six Discourses Delivered before the Royal Society at their Anniversary Meetings, on the Award of the Royal and Copley Medals; Preceded by an address to the Society, on the Progress and Prospects of Science, London: J. Murray, 1827, p.55, on the occasion of an award to Buckland in 1822. Davy remarked on "these graves of past generations, the marble or rocky tombs, as it were, of a former animated world, new generations rising, and order and harmony established, and a system of life and beauty produced, as it were, out of chaos and death; proving the infinite power, wisdom and goodness of the Great Cause of all being!" And on a similar occasion in 1824, p.97: "All vague and superstitious notions banished from the mind, which, trusting to its own powers and analogies, sees an immutable and eternal order in the whole of the universe, intended, after the designs of the most perfect beneficence, to promote the happiness of millions of human beings, and where the whole of created nature offers its testimony to the existence of a Prime and Supreme intelligence."
- 227 Thomas Beddoes, Observations on the nature of Demonstrative Evidence; with an explanation of certain difficulties occurring in the Elements of Geometry: and reflections on language, London: J. Johnson, 1793, p.89f, where Beddoes said he had intended to avoid the quotation and discussion of different opinions, but felt he must mention the work of Kant. "Mr. Kant has raised to himself throughout Germany, a reputation superior to that of Wolf, and at least equal to that of Leibnitz. Among his numerous followers he reckons men of eminence, who having violently opposed his doctrines, have, by a transition not uncommon, become his zealous advocates: nor does that opposition which new opinions always have to encounter, seem to have served any other purpose than to diffuse those of Mr. Kant. They have already been publicly taught at Jena, and there is reason to believe that they making their way to Gottingen. At a period when full liberty of sentiment is happily established throughout the republic of letters, speculations which have so powerfully influenced independent minds, are an object of rational curiosity; and an inquisitive person might wish, that an explicit account of Mr. Kant's doctrines were published in English, which the terminology would render a difficult undertaking." Beddoes discussed, albeit briefly, with reference to the 1787 edition of the Critique, the difference between a a priori and a posteriori knowledge, and causality, mentioning in a footnote on p.95 the comments of Reid on its importance for theology. For a review of Beddoes' book, cf. British Critic, III, (1794), 561-4.

- 228 T. de Quincey, Works, London: A. & C. Black, 1897, IV, 343 - de Quincey had read some of the medical works at Beddoes, and in a note said that Beddoes had read extensively in German literature. Beddoes, he said, was an offset from the school "of the splendid Erasmus Darwin", of whom Kant had never heard. The note is contained in de Quincey's "The Last Days of Immanuel Kant", produced in 1827, largely a translation of a work by Wasnianski. And p.324 in a note, he remarked on the fact of Leibniz' having written in French, and that up to Waterloo, few in England had read German, and those who did were not very likely to want to read Kant. Kant's German and Latin had begun to be translated into English, but not such English as would commend itself. W.A. Dunn, Thomas de Quincey's Relation to German Literature, Strassburg: Hertz and Mündel, 1900, described de Quincey's own varying estimates of Kant, and showed, p.82-3 that de Quincey knew the work of Nitsch and Willich. Of the English critics of Kant, de Quincey respected only Coleridge, but maintained that the latter was not an expositor of Kant as such - Coleridge's own mind modified all that went through it.
- 229 Dunn, op.cit., de Quincey had been reading Kant since 1805, and p.66f, Dunn listed de Quincey's translations of Kant from 1824 onwards. These included the essays on "The Beautiful and the Sublime", Swedenborg, the "Idea for a Universal History on a Cosmopolitan Basis", "Perpetual Peace", and on the age of the earth. De Quincey was also acquainted with all the most important of Kant's major works, and with the essay on the failure of Theodicies. In view of the essays de Quincey chose to translate, it is interesting to note that a reviewer, Edinburgh Review, LIII, (1831) discussing Williams Taylor of Norwich's Historic Survey of German Poetry criticized Taylor, p.167, for seeing Kant as "a sort of Political Reformer."
- 230 Coleridge, Notebooks, III, 4046. Cf. E.J. Morley, ed., Crabb Robinson in Germany, 1800-1805: extracts from his correspondence, London: O.U.P., 1929. Cf. Mander, Our German Cousins, p.60, on the connection between William Taylor and Robinson.
- 231 Referred to throughout as Kant/Richardson, Essays.
- 232 Kant, The Beautiful and Sublime, p.39-40 and G.M. Duncan, "English Translations of Kant's Writings", Kant-Studien II, (1899) 253-258. Willich may have produced a translation of the books on which he did not produce notes, cf. notes 208 and 234 of this section.
- 233 Semple, Metaphysics, p.vii, "The Essays are apparently rendered by a foreigner, and printed abroad, although graced with a London title-page. The only copy of this Miscellany I have been able to procure, is the copy in the Advocates' Library." Cf. the next note indicating that the translator appreciated the importance of Hume for Kant.
- 234 Vol. I (with a quotation from Hume before the "Preface") of the Kant/Richardson Essays, included the Essay on Enlightenment (1784); the Groundwork (1785); the False Subtlety (1762); This might be right in theory (1793); Illegal Reprinting (1785); Eternal Peace (1795); Conjectural beginning (1786); Evidence of Principles (1764); Orientation (1786); Universal History (1784); Vol. II again refers

to Hume in the "Preface", p.v., both his scepticism, and p.vii, his discussion of the cause-effect problem, with reference to the Prol egomena. This volume included essays on the Beautiful and Sublime (1764); Influence of the Moon (1794); Earthquakes (1756) - mistakenly dated in the title as 1775; Volcanoes (1785); Gentle Ton (1796); Theodicy (1791); Only Possible Argument (1763); Religion (1793) End of all Things (1794). We may also note here the reviews of e.g. the essay on Perpetual Peace, in the Monthly Review, XX, (1796), 486-490, a translation of which was announced in Vol. XXII, (1797); On the Beautiful and the Sublime, XXV, (1798) 584-585 - neither of these reviews commended Kant's philosophy. Notes on a collection of short essays - The End of All things, The Influence of the Moon, Right in Theory, and on the Idea for a Universal History, appeared in XXVI (1798) 560-561. Obviously there was a general interest in Kant for a few years, though he was rarely commended.

- 235 Mander, Our German Cousins, p.132-3.
- 236 I. Kant, Critique of Pure Reason, trans. Haywood, London: William Pickering, 1838, p.v-vi, noted the writings of Nitsch, Willich and Beck, and an article in the Encyclopedia Londinensis, by Wirgman. Cf. T. Wirgman, Principles of the Kantian or Transcendental Philosophy, by the author of articles on Kant, Logic, Metaphysics, Moral Philosophy and Philosophy in the Encyclopedia Londinensis, London: 1824, pp.151-158, in The Pamphleteer, XXIII, London: 1824. Haywood's second edition of his translation of 1848 included a comment, p.vi, that the Wirgman article was chiefly a translation of work by J.S. Beck. Thomas Brown, (Erasmus Darwin's reviewer) also had drawn attention to a French book on Kant, Edinburgh Review I, (1802-3) 253-280. Brown was himself unacquainted with the first Critique, but provided further evidence of early interest in Kant.
- 237 I. Kant, Critique of Pure Reason, trans. J.M.D. Meiklejohn, London: Bohn, 1855.
- 238 Ibid., p.xiii.
- 239 Ibid., p.xv.
- 240 Edinburgh Review, I, (1802-3), 287-305, with no disagreement with Paley on Hume's terms shown in the review.
- 241 Griggs, Letters, V, 421-2. Cf. I, 209, and 213, of 1796; Coleridge, Biographia I, 102; Orsini, Coleridge, p.217.
- 242 Griggs, Letters, I, 284, note.
- 243 J.W. Beach, The Concept of Nature in Nineteenth Century English Poetry, New York: Pageant Book Co., 1956, p.321, referring to Kant/ N.K.S., Critique, p.306.
- 244 Thomas Love Peacock, Nightmare Abbey, London: Constable, 1924, (first published in 1818) Cf. R. Wellek, Immanuel Kant in England, 1793-1838, U.S.A. : Princeton U.P., 1956, p.72f.

- 245 Edinburgh Review, XXVIII, (1817), 497-8, and cf. Griggs, Letters, IV, 668. Brett, Coleridge, p.14f writes on the fate of Coleridge's prose works; J.R. de J. Jackson, Coleridge: The Critical Heritage, London: Routledge & Kegan Paul, 1970, includes the Hazlitt review, pp. 295-376, and also reviews of Aids, pp.486-513. More favourable reviews of the second edition of Aids, of 1832, pp.585-606, included a more generous appreciation of Kant, e.g. p.595f.
- 246 Coleridge, Aids, p.716-7; p.258 and Griggs, Letters, V, 331, where he wrote, in 1824, "that the man who can have no assurance of a God that does not rest on apodictic proof, even tho' it should be susceptible of strictest demonstration that such a proof is incompatible with the nature of the truth to be proved and equally incompatible with all the purposes of this truth relatively to the human Being - such a man I say is not in a state to be reasoned with on any subject." Cf. Coleridge, Phil. Lectures, p.364.
- 247 Edinburgh Review, as note 245, p.515.
- 248 Griggs, Letters, V, 421, where Coleridge suggested that a more appropriate title would have been "An Inquisition respecting the constitution and limits of the Human Understanding". Cf. IV, 852; III, 360. Cf. Coleridge, Phil. Lectures p.425; Coleridge's notes in Tenneman; Aids, p.258; Biographia, I, p.190 writing about a point arising from his reading of the Inaugural Dissertation of 1770. "I take this occasion to observe, that here and elsewhere Kant uses the term intuition, and the verb active (Intueri, germanice Auschaun) for which we have unfortunately no correspondent word, exclusively for that which can be represented in space and time. He therefore consistently and rightly denies the possibility of intellectual intuitions. But as I see no adequate reason for this exclusive sense of the term, I have reverted to its wider signification, authorized by our elder theologians and metaphysicians, according to whom the term comprehends all truths known to us without a medium". On this Orsini, Coleridge, comments: "For the apprehension of this absolute Identity Schelling postulated a special faculty which he called 'intellectual intuition' ... He borrowed the term from Kant, who however denied that there was any such metaphysical faculty (B 307). It is remarkable that Coleridge goes out of his way to side with Schelling against Kant on this point." Cf. MacKinnon, "Coleridge and Kant", pp.193-197 on Coleridge's reading of the Dissertation, in Beer, Coleridge; and Coleridge, Notes p.282, p.315, p.407. T.K. Abbott's translation of I. Kant, Logic, London: Longmans, 1885 (from Kant's lectures of 1752f, compiled by a pupil, and published in 1800) included, p.97-8, Coleridge's few notes on the book.
- 249 B.M.G. Reardon, From Coleridge to Gore: A Century of Religious Thought in Britain, London: Longmans, 1971, p.69. Cf. Mander, Our German Cousins, p.146, on Coleridge's interpretation of Kant's "Vernunft" as "primary imagination", referring to Biographia, I, 46, and cf. Church Divines I, 263. Cf. Griggs, Letters, V, 138: "The true essential peculiarity of the Human Understanding consists in it's capability of being irradiated by the reason - in it's reciprocity - and even this is given to it by the presence of a higher power than itself." N. Brooke, "Coleridge's True and Original

- Realism", Durham University Journal, N.S. XXII, (1961), 58-69, especially p.59: "So the 'Infinite I AM' is the formula this system yields for God: He created objects which do exist; our 'perception' (a repetition in the finite mind) also, specifically 'creates' them, as they are, but known as vital because the act of knowledge is itself vital. The essential paradox is that objects do exist; but that we have to create them. There is, for Coleridge, no other form of knowledge than the creative." And Appleyard, Coleridge's Philosophy of Literature, pp. 197-208.
- 250 Coleridge, Biographia, I, 99-100. Cf. Kant/N.K.S., Critique, p.602.
- 251 Griggs, Letters, V, 14-15; Coleridge, Phil. Lectures, p.364-5; Lay Sermons, No. 1, p.366-67.
- 252 I. Kant, Vermischte Schriften, Halle: 1799.
- 253 Coleridge, Biographia, I, 191.
- 254 Coleridge, Notebooks III, 3701. Cf. Griggs, Letters, III, 35, and Coleridge, Lay Sermons, No. 1, p.353.
- 255 Griggs, Letters, IV, 791.
- 256 Coleridge, Aids, p.159.
- 257 Ibid., p.244, p.258-9, p.261.
- 258 Fruman, Coleridge, p.387. Cf. B. Willey, Samuel Taylor Coleridge, London: Chatto & Windus, 1972, p.92: "There was a vital constituent of Coleridge's religion which he did not find in Kant: the 'fact' of Original Sin. This he found in his own experience, his ever-present sense of weakness, failure and defeat; his need of redeeming grace. By 'Original Sin' he did not mean 'man's first disobedience and the fruit of that forbidden tree'; he meant that radical imperfection in human nature itself which led Paul to cry 'the evil that I would not, that I do'."
- 259 Griggs, Letters, IV, 708-9 Cf. A.O. Lovejoy, Essays in the History of Ideas, Baltimore: John Hopkins, 1948, pp.254-777, and Coleridge, Notes, p.397-9, "A Nightly Prayer", 1831. On Schleiermacher, Griggs, Letters, VI, 555.
- 260 Available both in the Vermischte Schriften and in the Kant/Richardson Essays.
- 261 Coleridge, Friend, I, 280. Cf. p.43.
- 262 Coleridge, Aids, p.392-3.
- 263 Coleridge, Notebooks, III, 3802. Cf. II, 2151; Orsini, Coleridge, p.52; and A.D. Snyder, "Coleridge's Cosmogony: a Note on the Poetic World-View", Studies in Philology, XXI,(1924), 616-625. Also, Coleridge, Notebooks, III, 4005, on Coleridge's belief that the "notion of God is essential to the human Mind, that it is called forth into distinct consciousness principally by the Conscience and

auxiliarily by the manifest adaptation of means to end in the outward creation." Cf. Coleridge, Phil. Lectures, p.434, notes on Tennemann, and Griggs, Letters, IV, 766.

- 264 For example, Coleridge, Notebooks, III, 4237. Cf. 4057: "So in a single drop of water the microscope discovers, what motions, what tumult, what wars, what pursuits, what stratagems, what a circle-dance of Death & Life, Death hunting Life & Life renewed and invigorated by Death - the whole world seems here, in a many-meaning cypher - What if our existence was but that moment! What an unintelligible affrightful Riddle, what a chaos of ... dark limbs & trunk, tailless, headless, nothing begun and nothing ended, would it not be! And yet scarcely more than that other moment of 50 or 60 years, were that our all! each part throughout infinite diminution adapted to some other, and yet the whole means nothing - ends everywhere, and yet an end no where." Cf. note 96 of the section on Kant.
- 265 Coleridge, Notebooks, II, Coburn's note on 2316, quoting ^{the} 1796 work, "On a Gentle Ton", and Coleridge's own comment on the passage.
- 266 Coleridge, Biographia, I, 133. Cf. Kant/Richardson Essays, II, 227-257.
- 267 Kant/Richardson, Essays, II, 257. Cf. Coleridge, Biographia, I, 134-5.
- 268 Kant/Richardson, Essays, II, 284.
- 269 Coleridge, Biographia, I, 136. Cf. Orsini, Coleridge, p.35: "This was indeed a constant theme of Coleridge's thinking, but there is no reason to believe that in 1797 he had read Kant, so he is simply anticipating on his narrative and illustrating his thought at a certain stage by means of his later reading, rather than recollecting their exact genius".
- 270 Kant/Richardson, Essays, II, 349. Cf. Specimens of the Table Talk of Samuel Taylor Coleridge, Edinburgh: J. Grant, 1905, p.307-8, on the work of 1763 and the first Critique, and Coleridge, Notes p.264.
- 271 Coleridge, Biographia, I, 183.
- 272 Ibid., I, 184. Cf. pp.196-198 on the 1763 work, Attempt at Introducing Negative Quantities into Philosophy.
- 273 Griggs, Letters, IV, 850; VI, 562.
- 274 Griggs, Letters, IV, 894.
- 275 Coleridge, Aids, p.160.
- 276 Ibid., p.395.
- 277 Coleridge, Friend, I, 516.

- 278 Ibid., p.498 f.
- 279 I. Kant, "Critique of Teleological Judgment", in Kant/Meredith, p.4.
- 280 Coleridge, Friend, I, 499.
- 281 Barth, Coleridge, p.128f.
- 282 Coleridge, Friend, I, 517.
- 283 Barth, Coleridge, p.135f, and cf. note 140 of this section, and McFarland, Coleridge, p.230: "Though both Platonism and Kantian analysis, as we have seen, indicated the reasonableness of the need for stapling the chain in an extra-mundane ground.... neither Plato nor Kant was able finally to secure the chain. Only the Trinity could do so. By the idea of the Incarnation the reason of man was able, to change the metaphor, to plant one foot firmly in this world, and by the idea of God the Father to plant the other on extra-mundane ground; and the idea of the Holy Ghost especially in view of the Anglican acceptance of the filioque clause - was a guarantee of the dynamic unity - in-diversity of the two steps." E.g. Coleridge, Church Divines, I, 12, II, 6. Cf. H. Rondet, Original Sin: The Patristic and Theological Background, trans. C. Finegan, Shannon: Ecclesia Press, 1972, p.266.
- 284 Barth, Coleridge, p.114. J.H. Green believed himself obliged to systematise Coleridge's philosophy after his death, and in 1865 published his own Spiritual Philosophy : founded on the teaching of the late Samuel Taylor Coleridge ed. J. Simon, London : J. Churchhill, 1865. His first effort known as the Religio Laici, was an exposition of doctrines Coleridge would have most wished to see developed. The Spiritual Philosophy is a re-cast of that earliest exposition. Vol. II of the work includes part of the Religio Laici in its "Appendices". On the contemplation of "Ideas", "Laws", as "thoughts of the Divine Intelligence", "archetypes and pre-existing models in the Divine Mind", Green warns p.70 that the student must never forget "the divine Unity, nor the identity therein of unerring intelligence, which transcends choice, with omnipotent will, causative of all reality, in eternal act transcending all pause of deliberation." And from the Religio Laici itself, p.362, "The idea of the Absolute will requires the postulate of Eternal possibilities, which the Supreme Good demands as possible, but forbids to be willed as actual." An evil will is that which strives to be under destructive or impossible conditions, p.365, and cf. p.378.
- 285 Barth, Coleridge, p.114, "Creation is for Coleridge ultimately a mystery, to be grasped as well as can be, by reflection and speculation, but in the last analysis to be accepted with reverence and love."
- 286 McFarland, Coleridge, p.1 f has the best account and discussion, and see other references in Orsini, Coleridge, p.218 and p.292.
- 287 Edward Bulwer, Lord Lytton, Life, Letters and Literary Remains, London: Kegan Paul etc., 1883, I, 265. (Hazlitt's work in the edition by his son, cf. note 10 of this section, was dedicated to Lytton.)

Section III: Darwin in his context

A. Chambers to Mill.

This section is intended to indicate some of the stages by which the notion of "transformism", rather than the "fixity" of species, gradually gained ground in England in the nineteenth century, and how various theological options were tried out alongside the examination of the alternatives.

It seems to have been taken for granted that statements about God could be made as a result of consideration of the natural order, and various analogies for God were employed in that connection. There does not even seem to have been much thought given to the problem of the status of man's assertions about the natural order, though some attention was paid to the logic of the procedure to be followed if one were to hold a scientific statement as true.

In one sense the material is easier to handle, in that to illustrate what was moving people to defend their positions one need only draw on their published works, and various collections of the "life and letters" variety. The problem is to see why there was so much heat generated over what may at first sight appear to be merely the substitution of one concept in biology for another. It has been supposed, for example, that what was at stake was the inerrancy of the biblical texts on which people drew for their "science"; and the "dignity" of man. Undoubtedly there is truth in both these suggestions. The contention in this chapter, however, is that there was at least one other issue at stake, namely, the possibility of a theodicy. The analogies for God which were promoted in relation to the notion of the fixity of

species, or of the transformation of species, had to be such as would serve for a theodicy. This was more or less possible when "evolution" could be interpreted to mean divinely intended progress and perfectibility, and the notion of transformism could be incorporated into this kind of scheme. Theodicy was less possible when "evolution" could be interpreted in terms of such phrases as "natural selection" and "the survival of the fittest."

To serve the purposes of a theodicy, the natural order had to be interpreted in an optimistic fashion, and some believers felt their faith threatened when this seemed to be manageable no longer. It was not clear to them that there might be another source for their theology other than "nature". Nor did they raise the question of whether they were in fact thinking theologically when they embarked on a theology derived from nature, or whether they were rather talking about nature and themselves. It was to become clear that the problem of physical evil in relation to a theodicy was in no sense solved by an appeal to the order of nature, whether interpreted via the notion of fixity of species or via transformation, but to arrive at that understanding took some time, since the issue was confused with so many others. Robert Chambers, *for one*, attempted to integrate the increasingly interesting information being provided by scientists with theology in The Vestiges of the Natural History of Creation,¹ first published in 1844. This book came to represent a challenge to an "orthodoxy" in England and elsewhere, which by 1844 included a scientific and theological world-picture. It is important to realise that the opposition to Chambers' work came from scientists as well as from theologians, as indeed was the case with the Origin in its turn. The furore caused

by the publication of his book justified Chamber's caution over its preparation and printing, and it also stimulated the awareness of the general public to the issues that had to be faced when Darwin produced the Origin.

Robert Chambers and his brother² had an extraordinarily tough upbringing and yet together managed to turn themselves into prosperous and important citizens, their reputation outside Edinburgh resting upon their literary and educational publications. February, 1832 had seen the first number of their Edinburgh Journal, with its essentially practical and scientific character. They had general education at heart - hence a prompt criticism that they paid little or no attention to religious questions. Chambers' fascination with the development of nineteenth-century science grew and grew. He joined the Edinburgh Royal Society in 1841, and later, in 1844, the Geological Society. In 1841 he moved from Edinburgh to St. Andrew's where he felt he would have more time to get on with his book, which was both a synthesis of a great deal of scientific information - and he made good many blunders, - together with an attempt to consider the meaning of the new perspective possibly implied by his synthesis. Unlike Darwin later, he was prepared to say in print what he thought the relationship ought to be between his way of looking at the natural order, and his theology, such as it was. Evidently he realised how serious a matter it was to attempt to challenge generally accepted opinion by writing his book, but since he thought that what he had to say was of fundamental importance, found a way of getting his ideas into print without suffering too much for having done so.

As he got his material ready, his wife transcribed it so that there should be no risk of anyone recognising his handwriting at the

publishers, Churchill of London. The manuscript was sent to a friend,³ who re-packed it to go to the publisher, who in turn sent it to the printer. The proofs went back to the friend and on to Chambers in fresh wrappings. A very few friends came to know of the author's identity, but it was not confirmed in print until fourteen years after his death, and when both his brother and his wife were dead. Despite all the caution, rumour had it that he was the author and it probably cost him the post of Provost of Edinburgh in 1848. He withdrew his candidature for the post rather than acknowledge the book as his in public. Some of the reviews may have been particularly virulent precisely because of the book's anonymity, though Chambers must still have come in for severe criticism, and he had all the disadvantages of being a public figure in a sense that was not to apply to Darwin. Bosanquet, a "minor theologian of no great power but of unimpeachably correct opinion,"⁴ wrote of Vestiges that it was a "romance of philosophy", displaying "the graces of the accomplished harlot"⁵. He continued: "Such is philosophy without the maiden gem of truth and singleness of purpose; divorced from the sacred ennobling rule and discipline of faith. Without this, philosophy is a wanton and deformed adulteress." Vestiges' kind of philosophy was "the most subtle serpent that poisons and saps the spiritual mind, and fascinates the conscience."⁶ With such encouragement, it is hardly surprising that Chambers never felt he could admit to authorship.

Before turning to the points made by Bosanquet and others, which reveal their own theologies of creation, we may turn to the book itself to find out what it was about it that engaged the minds of those who first read it. For Chambers, the physical affairs of the

universe were under the rule of law, a law being "an arrangement in which we see invariable Uniformity and self-consistency".⁷ He went on:

We thus trace in law, Intelligence - often we can see that it has a beneficial object, still more strongly speaking of mind as concerned in it. There cannot, however, be an inherent intelligence in these laws; we cannot conceive of mind actually working in the agglomeration of a dew-drop or the orbital revolution of the moon. The intelligence appears external to the laws; something of which the laws are but as the expression of the Will and Power. If this be admitted, the laws cannot be regarded as primary or independent causes of the phenomena of the physical world. We come, in short, to a Being beyond nature - its author, its God; infinite - inconceivable, it may be, and yet one whom these very laws present to us with attributes showing that our nature is in some way a faint and far-cast shadow of His, while all the gentlest and beautifullest of our emotions lead us to believe that we are as children in his care, and as vessels in his hand.

He then directed his readers' attention most carefully to the point that "when we speak of natural law, we only speak of the mode in which the Divine Power is exercised. It is but another phrase for the action of the ever present and sustaining God."

The pursuit of science was therefore to be understood as the seeking of a deeper acquaintance with God. "In modesty and reverence, in the spirit of the love of truth, and that craving of an innate helplessness which seems as if it could never be satisfied till it knew all, we may even inquire if there be any trace of the origin of that arrangement of the universe which is presented to our notice."⁸ The real difficulty as he saw it was the assumption that God created organisms by a special exercise of divine power. This "prejudice" as he described it, has "that hold upon our minds which early impressions and long-continued habits tend to give to even the most unphilosophical convictions."⁹ Chambers wanted an

"explanation" both scientific and theological, which would cope with the production of physical and organic phenomena together, since as he pointed out,¹⁰ "life, as it were, pressed in whenever and wherever there were suitable conditions and, once it had commenced, the two classes of phenomena went on, hand in hand together." It seemed to him very unlikely that in such a complex mass of phenomena, "there should have been two totally distinct modes of the exercise of the divine power". Chambers therefore took the "character of the divine procedure in the universe" to be the operation of law, leaving the "absolute fact" of the supremacy of God over nature, precisely where it was. God conceived and sustained arrangements "fitted to serve in a general sufficiency for all contingencies", thus placing "the leading divine attribute of foresight in a much more sublime position."¹¹

The scientific hypothesis was clearly that of the development of the vegetable and animal kingdoms as a vast system in which each particular species had its shape and place.¹² In the system man may see the "shadings" of one species into another, and therefore the unity of the system. "Rudimentary organs, too, appear but as harmless peculiarities of development, and interesting evidences of the manner in which the Divine Author has been pleased to work." It is the theory of "progressive development" not that of creative interference which provides us with a truly exalted idea of the Deity. Nature's wonders may justly be regarded as the results of "the highest attributes of foresight, skill and goodness on the part of their Divine Author." ¹³

Chambers noted that those who had in the past been inclined to support the notion of development as an explanation of the way

things had come to be, had thought in terms of the "chain of being", which he, (along with Brøgham, for example) had learned to discard. There was a plurality of series side by side, but not one series of ascending forms, "which had long been supposed to extend between the animalcule and the human being." One could not trace creatures in a series in such a way as to see a decrease or increase in perfection in passing from one species to another. Some classes of things had no connection with one another.¹⁴ His view was that any explanatory principle including the maxim natura per saltum nihil agit, must do justice to the facts.¹⁵ He did not shrink from dealing with the question of man's relation to the animal kingdom, asking whether it was degrading to man to think that the animal order was in any way concerned with his origin. For his own part, "we might expect a rational and well-ordered mind to receive the idea with submission, as a view of the manner in which Divine Providence has been pleased in this instance to work."¹⁶ Man should recognise not only his responsibility to creatures, but also his relationship with them. This need not lead to a view of man which did not do justice to his distinctive abilities:¹⁷ "Amongst the arrangements of Providence is one for the production of original, inventive, and aspiring minds, which, when circumstances are not decidedly unfavourable, strike out new ideas for the benefit of their fellow-creatures, or put upon them a lasting impress of their own superior sentiments."

Chambers launched into a particularly sensitive area when he went on to discuss theodicy.¹⁸ Some of his points were familiar from Hume's day. Chambers maintained, for example, that there was a general adaptation of the mental constitution of man to the circumstances in which he lives, as between all the parts of nature to each other.

"The goods of the physical world are only to be realised by ingenuity and industrious exertion; behold, accordingly, an intellect full of device, and a fabric of the faculties which would go to pieces or destroy itself if it were not kept in constant occupation." With Paley, he proposed that although the world is also one of difficulties and perils, we could see "how a large portion of our species are endowed with vigorous powers, which take a pleasure in meeting and overcoming difficulty and danger."¹⁹ But he went on to suggest that although God does not make a criminal²⁰ such a type of person "comes into existence in accordance with laws which the Deity has established", - not as the result of "the first or general intention of those laws, but as "an exception from their ordinary or proper action". Moral like physical evil, is admitted into the overall pattern as an apparent exception within a system which had generally good results. Of the fixed laws which form the system he wrote:²¹"Left to act independently of each other, each according to its separate commission, and each with a wide range of potentiality to be modified by associated conditions, they can only have effects generally beneficial." Even of war he could say that "it is, after all, but the exceptive case, a casual misdirection of properties and powers essentially good." Virtue forms no protection against the evils connected with physical laws, but on the other hand, "A man skilled in, and attentive to these, but unrighteous and disregardful of his neighbour is not protected by his attention to physical circumstances from the proper consequences of neglect or breach of the moral laws."²² So he could propose that "we never see evil of any kind take place where there is not some remedy or compensating principle ready to interfere for its alleviation. And there can be no doubt that in this manner suffering of all kinds is very much relieved."²³

Chambers clearly realised what kind of a deity he was describing, for he noted²⁴ that his view was apt to appear "as a dreary view of the divine economy of the world, as if it placed God at an immeasurable distance from his creatures, and left them without refuge from the numberless ills that 'flesh is heir to', and which no one can hope altogether to escape." But as the system Chambers described required a sustainer as well as an originator God must be present in every part of it, although he does not vary his operation of law. "Thus we may still feel that He is the immediate breather of our life and ruler of our spirits, that we may, by rightly directed thought, come into communion with him, and feel that, even when his penal ordinances are enforced upon us, his hand and arm are closely about us."²⁵ Whilst man is committed to take his chance in "a natural system of undeviating operation", and is left "with apparent ruthlessness to endure the consequences of every collision" into which he knowingly or unknowingly comes with each of its regulations, he could be assured that "there is a system of Mercy and Grace behind the screen of nature", which was capable of "compensating for all casualties endured here, and whose very largeness is what makes these casualties a matter of indifference to God." Chambers could not doubt that we are "in the hands of One who is both able and willing to do us the most entire justice. Surely in such a faith we may well rest at ease, even though life should have been to us but a protracted malady, as though every hope we had built on the secular materials within our reach were felt to be melting from our grasp."

To return to the reviewers, first of all one may say that not all were as simply nasty as Bosanquet. The main question

was Chambers' own question, in effect. They asked which of the alternatives - creation by interference or creation by law, were adequate to what people believed God to be. Thomas Monck Mason²⁶ asserted that, "The regularity observable in the conditions of the celestial creation is not that regularity which we have a right to expect from the operation of inflexible causes, but may very well consist with the working of that Power which does nothing in vain, and among the distinguishing characteristics of whose productions the extremes of uniformity and variety are equally prominently displayed." It did not seem to Mason that Vestiges had any explanation of why "the organic inhabitants of the present age" should not have subsisted "during any or all of the four preceding eras as in that to which they appropriately belong." ²⁷

²⁸
Mason went on to say that to have

so constituted laws as to be productive of all the varied and wonderful consequences ascribed to them, (admitting this to be possible, which, however, I shall hereafter take upon myself the responsibility of denying) may be regarded as an illustration of Almighty power, greater, it may be than what would accrue from the adoption of the theory of creation by special agency or decree. But in regard to the attribute of 'foresight', - it not only affords no evidence of it, but absolutely removes the only grounds upon which such an attribute could have been presumed.

To Mason, it was justifiable to suppose that it was as "competent and reasonable" of God to have introduced the creatures which his purposes demanded "at the epoch of their respective necessities, as to have provided for their appearance by the additional qualifications of His laws especially conferred upon them at the original period of their appointment."²⁹ An anonymous reviewer³⁰ went so far as to urge that "we have no doubt that advancing knowledge will establish our

proposition that the rocks of primitive granite, like the bones of primitive man, were called into existence by the fiat of creative agency."

Another reviewer³¹ saw that one need not, in fact, go in for that particular kind of option, but tried to re-state Chambers' kind of theology in the light of his own reading of Paley. Recalling Paley's analogy of the watch with approval, he remarked³² that if one were to suppose a watch that could be made by the influence of steam on metal, for example, the production of the watch would still have to be attributed to the work of an organising genius. One might, moreover, think more of an artisan who improved his instruments from time to time, than ^{of} an artisan who constructed new ones, for the improvements would be adopted at various time for various circumstances. "It has been said, that the examination of the eye alone ought to cure any person of atheism; would not the knowledge of the manner in which heterogeneous matter had been arranged so that by being subjected to the action of one or more fixed laws for an indefinite length of time, it should undergo various modifications, and at length become an eye, have at least the same convincing effect?"³³ And a shrewd question he asked³⁴ was, "Why should good men be less pleased to contemplate their Creator as the Author of Nature, than as one who does everything by special fiats. Is it that they have not been hitherto accustomed to regard the power of their Creator and Nature as antagonistic? Or rather, have they not ... been wont to compare the power of the Deity with that of man; and to look upon Nature as something that works as independently of His power as of man?" Surely such men should rejoice in any science which showed God as the author of nature, "of that

very power which seemed to them so independent of Him?" There seemed to this man at least no reason to accuse of propagating a theory leading to atheism, anyone who maintained³⁵ that "the adaptations so conspicuous in the eyes of different animals are the result of an inherent impulse in the forms of life to modify or alter their structure in accordance with external circumstances." The greater "utility of adaptation",³⁶ and the more it struck men as "resembling the consequences of an isolated act of creative power", then, the more one must admire³⁷ "the wisdom and foresight of one who has been able to bring it about by some general law or by some general system of laws." Continuing his development of Paley, this writer had a generally confident outlook. He saw "benevolent arrangement in all the ... apparent evils to which His creatures are subject". We could be sure that God "will not allow us to be afflicted with a greater meed of adversity of any sort, than is required for our chastisement and improvement".³⁸

Probably the most influential review, followed up by a substantial work,³⁹ was that of Adam Sedgwick. The review⁴⁰ stated the theological issue:⁴¹ "Does not our author see that he binds the divinity (on his dismal material scheme) in chains of fatalism as firmly as the Homeric gods were bound in the imagination of the old blind poet?" Sedgwick denied that he saw any blemishes and blunders in creation. "And were they there, and could we scan them, what would it matter to our conception of them, whether they sprang from dead material laws ordained by an all-powerful and all-seeing God, or from an immediate defect in an act of creative power?" Sedgwick acknowledged that he could not relate any particular creative law to the divine will, and therefore worked on the understanding of a "personal

and superintending God, who careth for his creatures." If the choice was between such a God and materialism, he chose that conception of God which exalted the nature of man by teaching him about the personality of God in whose image he had been made. This also meant that man had moral destinies which hold no allegiance to the laws of "dead and inorganic matter". Both the science and the theology of Vestiges seemed to him to be directly at variance with "the plainest acknowledged facts of nature."⁴²

The reason for Sedgwick's influence was that in 1818, at the age of thirty-three he had become Woodward⁴³ Professor of Geology at Cambridge. To begin with, he knew absolutely nothing of a "science" of which at that time there was admittedly, relatively little to know. But some crucial developments were prompted by the work of William Smith,⁴⁴ who had shown that a sequence of strata could be ascertained "by observation of the fossils characteristic of each", so that it might be possible to arrive at an understanding of the composition of the crust of the earth. This meant that geologists learned not to engage in discussion of the forces by which the composition of the earth's crust had been moulded before they had some accurate observations to work on.⁴⁵

Sedgwick's Discourse, originating as a sermon on The Studies of the University in 1832, had become by 1850 a considerable tome.⁴⁶ The original sermon included in its first section a review of the "laws of nature". Under this heading "natural science is considered in the light of the results to which a reverent study of it ought to lead; and it is pointed out that its various branches, Astronomy, Anatomy, Geology, minister to natural religion, and teach us to see the finger of God in all things animate and inanimate." (In 1845,

Sedgwick had a letter from an undergraduate saying of his geology lectures, "Truly you have led us to contemplate the God of Nature - His goodness - his omniscience - His omnipotence."⁴⁷ Sedgwick's merit was in not trying to take the first chapter of Genesis literally, as authoritative for geological study, but believing nevertheless that "truth could not be opposed to itself, and ...⁴⁸ the highest discoveries of science would ever be found in perfect harmony and accordance with the language and meaning of revelation." His review of Vestiges was to become over half of the Discourse by the time of its 1850 edition. The passionate loathing for Vestiges that Sedgwick showed in a letter of⁴⁹ 1845 to Lyell inspired him for a long time:

The sober facts of geology shuffled, so as to play a rogue's game; phrenology (that sinkhole of human folly and prating coxcombry); spontaneous generation; transmutation of species; and I know not what; all to be swallowed, without tasting or trying, like so much horse-physic!! Gross credulity and rank infidelity joined in unlawful marriage, and breeding a deformed progeny of unnatural conclusions ... What can we think too ill of the silly philosophy of one who compares the frosted vapour on our windows to the action of vegetable life? or the electric brush to the organic energies which bring to maturity a forest tree? ... who breeds mites by electricity, and hatches rats out of a goose's egg?

A book which proposed the "affinity of organic types", or of "spontaneous generation and transmutation of species" was trying nature by an hypothesis, and not^{an} hypothesis by nature, as he wrote to Agassiz.⁵⁰ "They shut out all argument from design and all notion of a Creative Providence, and in so doing they appear to me to deprive physiology of its life and strength, and language of its beauty and meaning." To try an hypothesis by nature, for Sedgwick, was quite obviously to maintain a "traditional" view which allowed a scientist to go on doing his science and to talk of a personal God, .

in direct connection with his scientific study.

Part of the reason for Sedgwick's rage was the author's silence about his identity.⁵¹ "An anonymous title page is a good as a wall of brass to any man who has taken up a rash hypothesis, and made up his mind to defend it at all cost: and he may shift his ground as often as he pleases, and change his colours as without blush, so long as he wears a mask." If the author is in the right, "Man must be shorn of his highest attributes and his best hopes. The God of nature must lose his personality - He is no longer in any moral or Christian sense, our Father, but we must look for our paternity among chattering monkeys and old sea-monsters."⁵² In Vestiges the "First Cause" is not allowed to exercise providential government, or to communicate with his "intellectual and moral creatures" except by means of "the material laws of dead nature".⁵³ Rather, the ultimate guarantee of God's care is the conviction that, "before the creation of all worlds, there was an archetype of Nature (dead as well as living, past as well as present) in the prescient mind of God."⁵⁴ Thus Sedgwick coped with Chambers' understanding of God's foresight, - and as in his review denied the possibility of any blemish in God's creatures - "in the great archetype dwelling in the mind of God, there is no blemish".⁵⁵ He clearly showed that he thought little of a theology which put God "far distant from us in the repose of a sublime pantheistic tranquility".⁵⁶

The reviews, and Sedgwick's Discourse show all too clearly how a particular theological option was linked with a particular scientific option. Paley's God had become the God of Cuvier, as he was understood in England. Following Cuvier, Sedgwick allowed⁵⁷ a kind of progressive development in relation to a succession of geological epochs, given the inadequacy of the "static" concept of the chain of

being, which Cuvier had exhibited.

I say we have successive forms of animal life adapted to successive conditions (so far, proving design), and not derived in natural succession in the ordinary way of generation. But if no single fact in actual nature allows us to suppose that the new species and orders were produced successively in the natural way, how did they begin? I reply by a way out of and above common, known, material nature, and this way I call creation. Generation and creation are two distinct ideas, and must be described by two distinct words; unless we wish to introduce utter confusion of thought and language.

It was with the name of Cuvier, therefore, that what has been described as "neoplatonic idealism in biology",⁵⁸ God creating in the aftermath of catastrophe, and the fixity of species, were in the nineteenth century primarily associated, and in the case of Sedgwick and others like him brought into a strange amalgam with the "caring" God of Paley. The reviewer who tried to produce an amalgam of Paley's God with the scientific option represented in Chambers' work, and associated with the name of Lamarck, was a rare phenomenon. Any and every notion of "development" other than that understood in relation to creative intervention, was associated, rightly or wrongly, with Lamarck and his successors. Lamarck was the heir of Buffon,⁵⁹ who had interpreted the principle of continuity in such a way as to deny the existence of absolute barriers between species, except those between species in certain phases of their existence. As we have already noted he was concerned to emphasise the affinity of groups of creatures, rather than identify species as "fixed" elements of the "world-machine". Groups of creatures could change with time; they were not for ever fixed in an hierarchy which could be divided into species. If continuity were interpreted not in terms of hierarchy but in terms of the possibility of progress and change, it might also be possible to account for rudimentary

organs found in creatures, and for "imperfection" in creatures. Buffon lacked enough appropriate "evidence" to support his proposals, and it fell to Lamarck, to present after 1793, an interpretation of "la marche de la nature" which attempted to do justice to Buffon's concept. Stafleu maintained⁶⁰ that a lecture of 11th May, 1800, was "the birth certificate of transformism". In the lecture and later in his books, Lamarck attempted to give an outline of the order in which nature seemed to have followed in forming its animals. His main thesis was that organisms change with time, and therefore that species were not constant. He had what Stafleu described as a poor theory of the mechanism by which change in species came about - a point of which the reviewers of Vestiges were well aware, - though for Lamarck it was "needs" rather than "desires" which provoked and in some sense brought about change.⁶¹ The implications of this general thesis for theology were often regarded as unfortunate. As one reviewer⁶² remarked of Vestiges man's love and veneration of his maker were scarcely increased by the reflection "that instead of being produced as a superior being by the direct fiat of an Omnipotent Creator, his immortal soul owes its origin to the corporeal functions of a tadpole." And Stafleu recorded⁶³ Sainte-Beuve's comment on Lamarck's God, - "A long blind patience, such was his genius of the Universe."

Cuvier had done his best to destroy the reputation of Lamarck, not simply by the immense success and prestige he himself enjoyed as a result of his own magnificent work, but by his critical and sarcastic attack on Lamarck, nor read until after Cuvier's own death in 1832.⁶⁴ There consequently appeared to be scientific as well as theological warrant for despising Lamarck's general thesis, and for preferring that associated with the name of Cuvier. It may be doubted, however,

whether theologically speaking, the view of the Creator proffered in the name of "sound science" as well as "sound theology" was particularly attractive or credible. As Lovejoy wrote:⁶⁵

It was, and is, possible, by making a sufficient number of supplementary suppositions, to give to the special-creation doctrine a form in which it is neither explicitly self-contradictory nor explicitly contradictory of any fact established by direct observation. But when thus fitted out with the supplements required by the facts already known to the science of 1840, the doctrine certainly had a singularly odd appearance. It implied that the Creator had produced the different types of organisms by fits and starts, strewing them at irregular intervals along the vast reaches of geological time .

The special creation doctrine was related to the supposition that "the majority of species, however created, were destined to be in turn, destroyed - and destroyed by the operation of natural forces. The Great Artificer could fashion, but he was either unable or unwilling to protect, the creatures his imagination had devised. When ordinary physical processes were too much for them, sweeping them off by groups, or even, according to one variant of the theory, obliterating them altogether, he was obliged to start afresh ..."

Moreover, "many primitive and rather unsuccessful models continued to be repeated", though it also appeared to be the case that the Creator tended to introduce more diverse and complicated models. Lovejoy continued in Humean fashion to comment that the Creator thus seemed to behave like a lazy and incompetent architect, who could do nothing better than to make a few alterations to a single conventionalized plan, - a mannerism which had the strange effect of reproducing in some organisms, features which were useless, meaningless and even possibly disadvantageous. "Finally, the Creator was supposed to have implanted in all organisms, the senseless habit

of mimicking, in the early stages of the individual's development, the form of other and extinct organisms to which that individual bore no relation of kinship". As Lovejoy suggested,⁶⁶ the theory was extraordinarily irreligious, in that "no man outside of a madhouse ever behaved in such a manner as that in which, by this hypothesis, the Creator of the universe was supposed to have behaved." And in another writer we may note a statement of a fundamental issue which⁶⁷ has already been raised in the course of this study:

the indirect and meandering course of evolution, as presented in the fossil record; the starting and stopping; the bizarre experimentation; the long periods in which forms of life predominated which proved to be far from the directions of advance; the preservation here and there of archaic species, above all, what must strike the tidy mind as the intolerable wastage; none of these things could be reconciled with the delusion that the human mind can directly and fully comprehend the plan of the divine mind in the production of living things.

From the passion with which both proponents of the doctrine of special creation and those who supported some version of the thesis about transformism defended their theologies, both laying claim to a God whose character would have been recognised by Paley, it is clear enough that something of great importance to believers was at stake. As Chambers asked - why should Sedgwick object to an⁶⁸ "organic cosmogony" when he himself was prepared to offer a "physical cosmogony" different from that of Moses? He had offered an hypothesis, in accordance he believed with Mill's proposals in his Logic, to give a direction to scientific enquiry. One must note, however, that whatever the status of his proposals in relation to scientific enquiry those proposals could not be treated as separable from theology either in his mind or in the minds of some of his contemporaries. Certainly the general public was fascinated by the book, and over

twenty-four thousand copies of it were to be sold. The publication performed a great service, whatever its errors about matters of fact, since as Eiseley commented,⁶⁹ the result was that the restricted professional worlds of science and theology both lost their ability to suppress or intimidate public thinking upon the matter. Even the eleventh edition, the last produced in Chambers' lifetime, was sold out, though produced after the publication of the Origin.

Chambers' general thesis about transformism or the evolution of one species from another received support from diverse sources. First of all, one may notice the part played by Herbert Spencer. Spencer published in 1853 an important, though brief essay entitled "The Development Hypothesis",⁷⁰ in which, as he later maintained,⁷¹ he set forth the germ of his whole general system of thought. In the essay, Spencer discussed the question of the conceivability of the alternatives of transformism and special creation. He could, he thought, show that modification of species, with the possibility of new species being thus formed was "countenanced by the habitudes of every existing organism."⁷² Of the Sedgwicks of the world he required on the other hand some information about their conception of the creation of even one species, let alone the millions that might have existed. He asked them to explain how a new species was constructed, and how it made its appearance.⁷³ "Is it thrown down from the clouds? or must we hold to the notion that it struggles up out of the ground? Do its limbs and viscera rush together from all the points of the compass? or must we receive the old Hebrew idea, that God takes clay and moulds a new creature?" Spencer could trace to no other source than the Mosaic account of the creation, the convictions of the geologists and physiologists who supported special creation.⁷⁴

He knew very well that people were hard put to it to say why they felt they had to defend this remnant of the Mosaic account, when they rejected other features of the story as absurd. Medawar noted⁷⁵ that it is not clear whether Spencer ever clearly made the distinction between the development of an organism from its embryo, and "transformism" or "genetic evolution", but at least he also helped to get the public used to the idea of "development". He saw to it that believers in special creation need not be supposed to enjoy the whole truth of the matter, and was later to play a useful role in helping Darwin to articulate his particular version of transformism.

Secondly, Baden Powell, an Oxford Professor of Geometry who was also a theologian, also threw his weight into the scales on Chambers' side, principally in his Essays on the Spirit of the Inductive philosophy, the Unity of Worlds, and the Philosophy of Creation,⁷⁶ containing essays written between 1849 and 1855. Powell ably summarised some of the principal features of the sciences of his day, carefully identifying those in which progress was being made. The principle of uniformity, an instance of Whewell's⁷⁷ thread for a string of pearls,⁷⁸ could be viewed simply as "the proper extension of inductive analogy and the law of continuity, even if not yet sufficiently substantiated in detail in each particular instance."⁷⁹ Powell proposed that "The principles of inductive science apply to all physical truth and the investigation of all physical causes. The laws of order, uniformity, and continuity belong to all parts of the material world: and in this order and continuity animal life is included."⁸⁰ It was obvious that in the physiological sciences there were many instances of the adaptation of structure to the ends and

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purposes of particular organisms. It was no less evident that such instances "force themselves on the mind with that peculiar, immediate, and irresistible kind of effect which is justly dwelt upon by most writers on the subject".⁸² For Powell, however, there was nothing "exclusive or peculiar in the study of organised bodies; it involves no essentially characteristic idea distinct from other branches of physical investigation". Like the other sciences, it tended to refer to "common and high principles of unity and harmony of plan and design throughout nature".⁸³ Hence his view of man was that in so far as his animal nature, functions, and instincts were concerned, "they are linked in the same chain of continuity with the order of other material existences."⁸⁴ Powell safeguarded himself from an obvious criticism by asserting that man's "spiritual" nature was wholly independent of material things, and therefore "relieved from all possibility of connexion or collision, with any physical truths or theories."⁸⁵ At this stage, having emphasised his interest in the unity of the sciences he could cautiously indicate as against Sedgwick, that he thought St. Hilaire's principle of "unity of composition" a "higher" principle than the teleological principles of Cuvier. He was well aware of the part Cuvier had played in his opposition to the theses of Lamarck and his "school".⁸⁶

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Powell had come down on Hume's side in the latter's discussion of "efficient cause" as a useless explanatory principle yet denied that what Hume had said touched upon the idea of "a supreme moral cause".⁸⁸ The truly inductive philosopher recognised "presiding Mind",⁸⁹ the supreme moral Cause of all things, everywhere revealed by the same outward manifestations of universal order and harmony; everywhere indicated by the same external attributes, symmetry, uniformity,

continuity; and attended by the same ministering agents, invariable laws, and physical causes". He had not learned from Hume what⁹⁰ Newman had learned, for Powell criticised Coleridge⁹¹ for denying the possibility of any natural theology, but thought he could do better than Paley by means of his own argument for there being "evidence and outward manifestation"⁹² of "INVISIBLE INTELLIGENCE". In his second essay, however, he ruled out any development of that notion by means of "the introduction of a still more metaphysical kind of argument deduced from the 'archetype' considered as a revival of the Platonic idea of archetypes existing in the Divine mind". An appeal to Cudworth and his concepts did not, for him, belong to the province of "physical philosophy".⁹³

His analysis of various alternatives in theological-cum-scientific writing currently available, but differing in various respects from his own, inevitably brought him in the third essay, to a discussion of the issues raised in Vestiges, located against the background of the controversey between Lyell and his fellow-geologists,⁹⁴ and picking up his own earlier point about the value of St. Hilaire's principles. To propose a pattern of four great divisions of animal life, each with a plan of its own,⁹⁵ had been shown to be a demonstrable scientific position. Attention should be given to a further proposal to the effect that whilst adult forms were dissimilar, during the course of the development of those forms, there was a period during which "an exact community of plan prevails".⁹⁶ It was therefore important to consider not only type but "descent", and from there to recognise that "within the bounds of observation of the existing order of things" the characteristics of any one species were not absolutely fixed, but might even admit of such variation, continued for a

sufficient length of time, as to lead one to suppose that they would constitute a new and permanent species.⁹⁷ "And so far as any speculation can be carried on a subject so little understood, it would seem most probable that wherever such permanency has been attained, there is always some peculiarity in external conditions which had been the determining cause for the perpetuation of such variety, just as some other external conditions of an opposite kind are in other cases unfavourable, and cause its declension or extinction."⁹⁸ Powell repeatedly stressed however, that no-one was in a position to be dogmatically for or against the concept of the immutability of species, though his own preference was clear. He made explicit the connection of the theory of "unity of composition" with that of "transmutation"⁹⁹ given enough time for change to take place, and working with the general maxim that what we do not know must really be as much under the dominion of law as what we do know.¹⁰⁰

Powell's "great Moral Cause", therefore, his "omnipresent Mind",¹⁰¹ was a theological counterpart of his view of science, that in turn having "uniformity" and appropriate analogies and inductive arguments as its distinguishing characteristics.

A rational physico-theology teaches that the succession of forms of organised life on the globe, up to the first origination of all animated nature, were acts of the Divine will, wisdom and power, in precisely the same sense as the revolutions of the double stars and planets, the daily tide, the fall of rain, the ascent of vapour, the action of the sun's light and heat, and all other natural phenomena, regulated by similar recondite laws, are direct and immediate acts of the same Divine will, wisdom and power.¹⁰²

As he was well aware, every step which brought "nature" under the domination of "law" was stigmatised as setting up nature instead of God "as if we could trace Him except through Nature"; - and as

referring everything to mechanical causes instead of the Divine will - " as if the recondite system of physical causes were not the very evidence of that Will and that Supreme Wisdom".¹⁰³

An interesting point about Powell's work, apart from the calm sense with which he approached both Vestiges and its detractors, is that his appreciation of "uniformitarianism" had brought about his acceptance of the possibility of the transformation of species much faster than Lyell, the great theoretician of uniformitarianism,¹⁰⁴ could be brought to accept it. This perhaps is not so surprising in that the overall view of geological change which was associated with the latter's name could be associated with progressive development by creation as in Sedgwick's case, or with progressive development by transformation as a result of the action of natural processes.¹⁰⁵ As Huxley later remarked, Lyell's problem was that he was disposed to account for the origination of all past and present species of living things by natural causes, but that "he would have liked, at the same time, to keep the name of creation for a natural process which he imagined to be incomprehensible." And in general one may say of Powell's efforts in his Essays and other writings that they may well have helped with Vestiges, to familiarise people with the concept of the transformation of species.^{They}

may especially have helped people to see that it was no more an "irreligious" concept than that of the immutability of species, and indeed that neither were necessarily "religious" concepts. On the other hand, as a scientist he did not seem to see that the possible relationship between theology and science could be more complex than he supposed. He wrote with the assumption that he was required to construct a natural theology, and for him at least it did not seem possible that there could be another way of contributing to

theology.

Lyell had turned to geology whilst still a student at Oxford,¹⁰⁶ and was at first taught by Buckland.¹⁰⁷ Strictly as an amateur, he was elected to the Geological Society of London in 1819.¹⁰⁸ His family's plan for him was that he should become a lawyer. But by 1825 he was almost fully committed to geology, and one of his earliest papers of 1826, included a statement of how he, as a geologist, viewed the "chain of being".¹⁰⁹ It seemed that successive races of distinct plants and animals had inhabited the earth. Whilst many fossils were referable to species "now in being with the exception of a few imbedded in the most recent strata, yet they all belong to genera, families, or orders established for the classification of living organic productions. They even supply links in the chain, without which our knowledge of the existing systems would be comparatively imperfect. It is therefore clear to demonstration, that all, at whatever distance of time created, are parts of one connected plan." The gradation of of beings ascended in a scale from lowest to highest, culminating in the human frame. Butler's comment that the scheme of things was not a fixed but a progressive one could be supposed to mean that the succession of various groups of species was perhaps as natural as the succession of generations in a living species. Wilson¹¹⁰ proposed that it was in Butler's Analogy that Lyell found his own clue as to how to interpret geological change. Uniformity and constancy were the fundamental characteristics of the order of nature man knew; and the analogy of changes in organic life made probable a simular state of existence, in the past as in the present and the future.¹¹¹

When he came to write his Principles Lyell had to comment on the views of "catastrophists" such as Davy in his Consolations¹¹² in Travel which challenged the assertion of the uniformity of physical laws in the past, as well as dispose of a "religious cosmogony". This was not easy, in view of the distinguished support for the notion offered by Sedgwick, for one.¹¹³ The difficulty for Lyell in the 1830's, working through his volumes of the Principles of Geology, was to assert uniformitarianism, as a scientific principle, but deny that status to the principles of progress, transformism, and special creation. He had no real answer to the question of how new species came into being to fill in the "gaps" left by the extinction of old species, and could only use phrases such as species being "called into existence" as an answer. In other respects, the Principles established, as Wilson noted,¹¹⁴ "a picture of species, real entities, jostling one another for living space on the earth's surface". The continued life of a species depended not only on the stability of a set of physical conditions but on a balance in its inter-relations with neighbouring species. In the course of geological time the conditions for the maintenance of a species were not necessarily sustained, and so species were continually becoming extinct.

Lyell found it necessary in his early days as Professor of Geology at King's College, to do something to repudiate the charge¹¹⁵ that his uniformitarianism tended towards atheism - there had been a certain amount of controversy over his appointment with the bishops responsible for it. Lyell argued for the independence of geology from theology as Henry Crabb Robinson recorded, but made certain that his audience understood that this was not necessarily to repudiate natural theology.¹¹⁶ Also he made it clear in a letter to Sedgwick in¹¹⁷

1838, that those of his readers who chose to interpret the Principles as suggesting that new species were coming into being in the modern period were right to think that their interpretation coincided with Lyell's own view - though he could not lay the doctrine down dogmatically as capable of proof. As he commented to Sedgwick: "You will I hope allow that to assume that there have been no new creations since man appeared is at least as 'rash and unphilosophical' as modestly to limit the possibility of such occurrences, which is all you will find I have done." It was difficult for Sedgwick to insist on creation and progress but to refuse the possibility of mammals, for example, having been produced after man.

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However, as Lyell's journals show us, in private he was coming to have doubts about natural theology. One of the papers which was important to him here was by A.R. Wallace, "On the Law 119 which has regulated the Introduction of new species", which Wallace published in 1855. The first journal of 1855 reflects Lyell's preoccupation with Wallace's statement that "every species has come into existence coincident in both space and time with a pre-existing closely allied species". His discussion of the scientific problem 120 is inseparable from his natural theology. So, for example, he wrote:

Of innumerable ways in which Omnipotence might fit a new species to all present and future conditions of its existence, there may be one which is preferable to all others, and if so this will cause the new species to be in all probability allied to the pre-existing and extinct... or with many co-existing species of the same genus. What is called here necessity may merely mean that it pleases the Author of Nature not simply to ordain fitness, but the greatest fitness, how far consideration of mere beauty in form, of endless variety for variety's own sake, may enter into these laws is matter for speculation, but independently even of such condit.^s there may be a propriety absolutely exceeding all other, & this may always be chosen and may cause many allied species .

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Then in late April, 1856, a meeting took place at Darwin's home to discuss the species question. It would seem that Darwin, already well-known for his geological work and for his contributions to the biological sciences, had deliberately gathered together men such as Huxley and Hooker to try out his ideas. In the entries for late April, 1856, and subsequently, Lyell wrote about his new perplexities over the "Natural Selection Theory". A conversation 122 with Huxley, Hooker, Mill and others in London led him to conclude 123 "that the belief in species as permanent, fixed & invariable, & as comprehending individuals descending from single pairs or protoplasts in growing fainter - no very clear creed to substitute. Indefinite time & change may, according to Lamarckian views, work such alterations as will end in races, which are as fixed [as] the negro for example & unalterable for the period of human observat.ⁿ as are any known species such as the Ibis cited by Cuvier".

An important and recurrent question was whether man was to be 124 included in the same system of change. "If we include him, the great book which the Geologist is trying to decypher becomes at once identified with Natural Theology as well as with Natural History. Mind & the soul of ... Man will be found to be a development of the instinct of Animals? If so, why deferred so long after the Quadrumana and the Elephantine mammalia flourished. Have we gained one step towards reconciling us to the alternative in the last 50 years. Is not the dilemma really owing to the want of philosophy in species-making?" And, in May of 1856,¹²⁵ "A law of progressive developm.^t is the only way of reconciling the successive appearance of higher and higher beings on the stage, but can any such law evolve the rational out of the irrational. It is here that the analogy fails." He

commented further that "the intellect of Man 2000 years ago (Socrates, Aristotle, Plato) is quite equal to that of the 19th century." And he wrote out his own statement of a fundamental perplexity: "The number¹²⁶ of born idiots, of children born dead, of insane, of the lowest & most animal-like of savage races, of infants cut off before their capability equalled that of the instinct of the Elephant or the Dog, has probably exceeded all the millions of the white races or Asiatics of the most civilized eras. The failures have been counted by Millions, so entirely does Nature subject Man to general laws - Epidemics, Earthquakes, Pestilences, Wars are allowed their full sway." Yet¹²⁷ like Owen, he still found attractive the notion of the foreknowledge of the Deity expressed in what he believed to be Platonic terms: "Our¹²⁸ conception of the reality of specific types may border on the eternity of the 'divine ideas' which at certain periods, formed & predetermined, became united with matter or incarnate, according to Plato." This could suggest a more "worthy"¹²⁹ concept of creation - God's making of "an original from which all the rest were to be followed and to be evolved."

¹³⁰ By April, 1857, he could write of natural theology that "the effort of the finite mind to comprehend the infinite must give rise to as many theories or diff.^t opinions as diff.^t religions. No two men, unless their faculties are equal, can entertain precisely the same estimate of the scheme of organic nature, actual & geological - or no two having equal powers, if they possess diff.^t amounts of knowledge of Nature." Perhaps particularly interesting is his¹³¹ quotation of a letter of Charlotte Brontë's on a work which maintained¹³² disbelief in the existence of God and a future life. She had written that "The strangest thing is, that we are called upon to rejoice over

this hopeless blank - to receive this bitter bereavement as great gain - to welcome this unutterable desolation ... as a state of pleasant freedom. Who could do this, if he would?" This letter included in a journal discussing various scientific problems, shows what men like Lyell feared if they abandoned certain supposedly scientific positions which at the same time proposed a theology to them. Lyell struggled on and wrote to himself that he ought to consider development as a mode of explaining creation, not of getting rid of it, though thought the writer of Vestiges mistaken in supposing that the institution of general laws was to save trouble and intervention. "Let any one be called upon to make a species to last 1/2 a million of yrs. or a geological period & conceive the problem."

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And he could face the point that "We have never made a step yet without having to part with some cherished time-honoured dogmas, without many being unsettled & made unhappy, but there is at least as much belief in a superintending omnipotence & hope in a future state & as much morality as before these new views. Where there is the grossest superstition and ignorance, there is less morality."

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Not even Powell's theology enabled Lyell to cope with every problem, however. "There are difficulties like the origin of evil, mysteries like the gradual passage from rational to irrational surrounding us & ever near to which, perhaps wisely, we habitually shut our eyes. We cannot grapple with them." But he repudiated altogether a theology which proposed that "abortion, inferior, diseased, immoral, stupid, insane creatures are not the result of laws but of special intervention". And further, "If we call in a special act of the Creator in the case of each individual of high moral or intellectual endowment, we may find among the offspring of

the same parents, an idiot, an insane, an ordinary or stupid individual - & by this device to take refuge in some law, to escape a Manicheistic theory". ¹³⁸

We may turn to Hooker to find a less agonised approach to the issues at stake. His views were essentially pragmatic. ¹³⁹ He would accept the origin of species in variation, rather than the view that species were fixed, if it helped to explain the problems of botanical affinity and distribution more successfully. ¹⁴⁰ In 1857 he wrote to ¹⁴¹ Asa Gray that "These parsons are so in the habit of dealing with the abstractions of doctrines as if there were no difficulty about them whatever, so confident, from the practice of having the talk all to themselves for an hour at least every week with no one to gainsay a syllable they utter, be it ever so loose or bad, that they gallop over the course when their field is Botany or Geology as if we were in the pews and they in the pulpit. Witness the self-confident style of Whewell and Baden Powell, Sedgwick and Buckland". The freedom of science from theology (without a serious concern for theology as a subject in its own right) was to be Hooker's concern first and foremost, and there could be no argument about this related to his abilities or his professional standing. His father, Professor of Botany at Glasgow in 1820, had brought up his son to be a botanist, and the younger Hooker had travelled widely. He had followed his father to Kew in 1841, and become assistant Director of the establishment there in 1855. His views of 1857 on natural theology were to be stated in public when he became President of the British Association in 1868. Natural theology, ¹⁴² he said, was the most dangerous of two-edged weapons - "a science, falsely so called, when, not content with trustfully accepting truths hostile to any presumptuous standard it may set up, it seeks to weigh

the infinite in the balance of the finite, and shifts its ground to meet the requirements of every new fact that science establishes, and every old error that science exposes. Thus pursued, Natural Theology is to the scientific man, a delusion, and to the religious man a snare, leading too often to disordered intellects and to atheism."

However, there was still some way to go before Hooker could state his views publicly, as compared with the 1850's. For example, Powell knew¹⁴³ and approved of Charles Kingsley's kind of theology. The latter, in 1842, wrote,¹⁴⁴ "Study nature - not scientifically - that would take eternity, to do it so as to reap much moral good from it. Superficial physical science is the devil's spade, with which he loosens the roots of the trees prepared for the burning. Do not study matter for its own sake, but as the countenance of God ...". Then, in 1854, one finds a statement¹⁴⁵ that his theological creed had grown slowly and naturally out of his physical one, - "till I have seen, and do believe more and more utterly, that the peculiar doctrines of Christianity (as they are in the Bible, not as some preachers represent them from the pulpit) coincide with the loftiest and severest Science." Not surprisingly he could write in 1871 that "We might accept what Mr. Darwin and Professor Huxley have written on physical science, and yet preserve our natural theology on exactly the same basis as that in which Butler and Paley left it"¹⁴⁶. That what people like Darwin and Huxley in particular had said could or should have made any difference to theological thinking, does not seem to have occurred to him, apart from the assistance they had given to the elimination of the "master magician"¹⁴⁷ image of God.

Kingsley, for one, seems to have relied a great deal on

Tennyson's articulation of faith in poetry, - Tennyson was regarded
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as the champion of science by both Sedgwick and Owen. Whilst at
Cambridge Tennyson had read something of Hume and Kant; he had
debated topics such as the origin of evil, and had proposed a version
of "evolutionary" theory.¹⁴⁹ There is evidence enough of his interest
in science,¹⁵⁰ and of the part his poetry¹⁵¹ played in familiarising a
wide public with different area of scientific speculation and
articulating his own response to it. Yet as a representative of the
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"Cambridge movement", as Nicolson wrote, he had a particular
theological concern. The members of the movement "desired to be
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assured that all was really for the best; they desired to discover
some compromise which, whilst not outraging their intellect and
their reason, would none the less soothe their conscience and restore
their faith - if not completely, at least sufficiently to allow them
to believe in some ultimate purpose, and more important still, in life
after death". Tennyson produced one expression of faith in 1839, when
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he wrote that "God cannot be cruel. If He were, the heart could only
find relief in the wildest blasphemies, which would cease to be
blasphemies. God must be all-powerful, else the soul could never
deem him worthy of her highest worship. Let us therefore leave it to
God as to the wisest". However, unlike Kingsley, Tennyson did not
propose a natural theology, for his view a natural theology could not
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satisfy man's deepest needs. So in 1892 he wrote, "Yet God is love,
transcendent, all-pervading! We do not get this faith from Nature
or the world. If we look at Nature alone, full of perfection and
imperfection, she tells us that God is disease, murder and rapine. We
get this faith from ourselves, from what is highest within us, which
recognises there is not one fruitless pang, just as there is not one

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lost good." And Jowett's recollections of him were that his
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characteristics included "A strong desire to vindicate the ways of
God to man, and, perhaps, to demonstrate a pertinacity on the part
of man in demanding of God his rights".

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Tennyson could have looked at a copy of John Richardson's
version in three volumes (prepared in 1819 but first published
in 1836), of Kant's Metaphysical Works. Richardson's collection was
somewhat complicated, in that it included translations of Kant's
Logic and of the Prolegomena in the first two volumes, together with
Richardson's own introductory material. The third volume contained
not only Richardson's "Critical and metaphysical" enquiry into the
grounds of proof for the existence of God, (in which he stressed his
understanding of Kant's practical reason) but also a translation of
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the essay on theodicy. It looks as though he used the translation
of 1798 and altered it slightly. He also seems to have familiarised
himself with the rest of the contents of that pair of volumes, so he
could inform his readers of his reasons for including the essay on
theodicy. The theodicy,

by all the failures of the philosophical essays on it,
sufficiently convinces us, that man, when he attempts
but to guess at the views of the Almighty in the
government of the World, is in the dark. He was not
born to build everlasting habitations upon this stage
of vanity. His life has a far nobler aim. How
beautifully do all devastations, such as those
occasioned by the destructive effects of tempests, of
volcanos and of earthquakes, harmonize with this aim!
And not only these, but the inconstancy of the world,
even in the things which seem to us to be the greatest
and the most important, may serve to put us in mind, that
the goods of the earth cannot satisfy our instinct for
happiness, and that this life, this mere infancy of our
moral being, is not the final issue of all our hopes
and prospects.

Going on to quote the last sentences of the second book of the

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Critique of Practical Reason, he further commented that it was upon

"the invincible practical argument" especially that the required proof of God's existence was firmly established. No obstinate infidel or inflexible sceptic need harbour doubts about the "moral existence" of God. God was to be held to be "utterly incomprehensible" and "inscrutable Supreme Intelligence", who was not only "the Creator of the very matter in itself, or of the intelligible elemental substance of nature, the First Causator and the Ruler of the Universe, but the Author of the spiritual world, consequently of all moral order and perfection." If Tennyson wanted some kind of philosophical warrant for his theological views, he could have found them in this sort of material, though of course he could not derive from Kant any authority for demanding of God man's rights.

Apart from Tennyson's possession of this book, it does not seem likely that many people read Kant at first hand for themselves in the 1850's. Some introductions were available. A.G. Henderson's 1854 translation of V. Cousin's work on the philosophy of Kant,¹⁶¹ included not only a good general account of Kant's works by the translator himself but clear indications of the contents of many of his essays, including the pre-critical ones, with extensive quotation from them. Henderson did not think much of Richardson's translation of the¹⁶² Prolegomena, whereas he could recommend Cousin's translation of Kant into French, and presumably therefore, his own translation of Cousin into English. But Henderson made an interesting slip when he came to¹⁶³ list the 1791 essay on theodicy, which he cited as "on the Failure of all Philosophical Ideas on Theism" - a work in which Kant "reiterates the insufficiency of the speculative proofs for the existence and attributes of the Deity, contending that the one from morals alone is valid." Henderson possibly became confused between Kant's actual essay

and Richardson's discussion of it.

To read Kant via Cousin, a disciple of Schelling was not be
illuminated about Kant first and foremost, though a reviewer of some of
Cousin's work of 1828 thought the latter's work was important in so
far as it had re-established in France some respect for religious
convictions. It was in fact somewhat difficult for the English to
see Kant in the perspective of European philosophy. For example,
Lewes' Biographical History of Philosophy of 1852, in one or other of
its versions, did indeed refer to Kant as to Bayle and others discussed
in this study, but with an interest governed by Lewes' association of
logic with psychology. So Hort suggested in 1856, that it was but
recently, "thanks to Sir W. Hamilton and his friends", that "almost
the clearest and coldest of intellects has ceased to appear as an
enthusiastic dreamer of gorgeous dreams, ignorant of severe logic, and
despising physical science." Hort was commenting on the picture
conveyed to the English by M. Cousin and his "English parasites".
(Sedgwick, for one, had been recommending the work of Cousin for
years). Mansel's 1856 lectures on Kant's philosophy were far from
being entirely sympathetic to Kant, however. For Mansel, "Kant's
heart and head led him in two opposite directions. He worshipped in
secret the idol which he openly overthrew, and gave but a half assent
to the iconoclasm which he had himself organised." Kant had laid
the foundation for a "Philosophy of the Conditioned", but the "ghost
of the unconditional still hovered about the spot" where the old
serpent of metaphysics lay not slain but scotched. And Mansel parodied
Kant's proffered comfort to suffering virtue:

My virtuous friend, I confess that to all appearances
you are very unhappy. But I have before told you that
you have two distinct existences - a phenomenal
existence, of which you are conscious, and a real
existence of which you are not conscious. In the life

of consciousness, I have already proved by an elaborate argument that you are subject to the most rigid laws of causation, however much you may fancy yourself to be free: but I have also shown that the laws of phenomena do not extend to realities. Take comfort, then, and be assured that though in your phenomenal existence you are, or fancy yourself to be, afflicted with all the sufferings of Job; yet in your other character, as reality, (of which, however, you are never conscious, and never will be,) you may, for anything that you or I know to the contrary, be the very happiest of created beings.

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Mansel especially showed in his 1858 Bampton Lectures, that Butler, rather than Kant in the first instance, was his philosopher, though he made some use of Kantian principles. Thus he affirmed a positive

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view of God, seen "in those relations in which He has been pleased to manifest Himself to his creatures". Such a view would be content with regulative ideas of the Deity, "which are sufficient to guide

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our practice, but not to satisfy our intellect". His position would require him to renounce all attempts "to construct a priori schemes of God's Providence as it ought to be: it does not seek to reconcile this or that phenomenon, whether in nature or in revelation, with the absolute attributes of Deity; but confines itself to the actual course of that Providence, as manifested in the world; and seeks no higher internal criterion of the truth of a religion, than may be derived from its analogy to other parts of the Divine Government."

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Tackling the question of why evil should exist at all, in the context of a general discussion of Kant's moral and religious philosophy,

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Mansel drew on Leibniz' Theodicy as a source of illustrative arguments.

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His comment in the text on what the notes reveal to be his reading of Kant's 1791 essay was:

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"Against this immovable barrier of the existence of evil, the waves of philosophy have dashed themselves unceasingly since the birthday of human thought, and have retired broken and powerless, without displacing the minutest fragment of the stubborn rock, without softening one feature of its dark and rugged

surface."

Whatever Mansel and his fellow theologians were writing and thinking, especially in their warning not to try to reconcile natural phenomena with the attributes of the deity, their work did not inform the minds of the philosophers of nature whose views were shortly to become so influential. To take A.R. Wallace first, one finds that he had read Malthus,¹⁸¹ presumably the second version of his work, in 1844, when he had just turned twenty-one. Of Malthus he wrote:¹⁸² "It was the first work I had yet read treating of any of the problems of philosophical biology, and its main principles remained with me as a permanent possession, and twenty years later gave the the long-sought clue to the effective agent in the evolution of organic species."¹⁸³ H.W. Bates, the great entomologist, had encouraged Wallace, who had begun work as a surveyor, and was trying to get a post in teaching, to continue his reading and his efforts at self-education. It was to Bates that Wallace confided his approval of the "ingenious hypothesis"¹⁸⁴ propounded by Vestiges. It was with Bates that he went to the Amazon in 1848. That expedition laid the foundation of his reputation as a scientist, such that when he met Huxley in 1852¹⁸⁵ the latter was impressed by Wallace's learning and the brilliance of his lecturing.

His 1854 expedition to Malaya taught him something not simply about butterflies but about man:¹⁸⁶ "The more I see of uncivilised people, the better I think of human nature on the whole, and the essential differences between civilised and savage man seem to disappear." It was in 1855, in Sarawak,¹⁸⁷ that he wrote the article which intrigued Lyell, though it seems to have made little impression in general. By 1858 he had produced, quite independently of Darwin, his account of how.

the overall thesis of Vestiges was to be preferred to the thesis of
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the special creationists. Wallace's paper which he sent to Darwin,

"On the tendency of varieties to depart indefinitely from the
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original type", included in its earliest pages, the statement that

"The life of wild animals is a struggle for existence. The full
exertion of all their faculties and all their energies is required
to preserve their own existence and provide for that of their
infant offspring. The possibility of procuring food during the
least favourable seasons, and of escaping the attacks of their most
dangerous enemies, are the primary conditions which determine the
existence both of individuals and of entire species." The development
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of his theme enabled him to propose that a variety could replace a
species, "of which it would be a more perfectly developed and more
highly organized form." Moreover, "It would be in all respects
better adapted to secure its safety, and to prolong its individual
existence and that of the race. Such a variety could not return to
the original form, for that form is an inferior one, and could never
compete with it for existence." Certainly Lamarck was mistaken in
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his proposal that "progressive changes in species have been produced
by the attempts of animals to increase the development of their own
organs, and thus modify their structure and habits". Wallace's
hypothesis of uniformitarianism combined with transformism, was that
similar results must be produced "by the action of principles
constantly at work in nature." So, for example: "The powerful
retractile talons of the falcon and the cat tribes have not been
produced or increased by the volition of these animals; but among
the different varieties which occurred in the earlier and less highly
organized forms of these groups, those always survived longest which
had the greater facilities for seizing their prey."

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In his Darwinism of 1889, Wallace showed that he fully recognised the problem he had raised, however briefly, in his description of the fundamental character of the natural order as he understood it, although it had been successful in providing him with his correction of Lamarck and his substantiation of

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Vestiges. In a section headed "The ethical aspect of the Struggle for Existence", he cited Winwood Reade's popular book The Martyrdom

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of Man of 1872. Reade had tackled the question of the character

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of the Creator. He re-stated the old problem, much as Bayle might have done. "It is said that the Creator is omnipotent, and also that he is benevolent. But one proposition contradicts the other. It is said that he is perfect in power, and that he is also perfect in purity." Reade's parable ran :

The conduct of a father towards his child appears to be cruel, but it is not cruel in reality. He beats the child, but he does it for the child's own good; he is not omnipotent; he is therefore obliged to choose between two evils. But the Creator is omnipotent; he therefore chooses cruelty as a means of education or development; he therefore has a preference for cruelty or he would not choose it; he is therefore fond of cruelty or he would not prefer it; he is therefore cruel, which is absurd.

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The theory that God is Love is "illusive". And Reade found it to be illusive because of his reading of "the Book of Nature, that book inscribed in blood and tears", - for "it is when we study the laws regulating life, the laws productive of development" that we see the falsity of the theory. "In all things there is cruel, profligate and abandoned waste. Of all the animals that are born a few only can survive; and it is owing to this law that development takes place. The law of Murder is the law of Growth. Life is one long tragedy; creation is one great crime." And to come to the passage to which

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Wallace was to address himself:

Pain, grief, disease and death, are these the inventions of a loving God? That no animals shall rise to excellence except by being fatal to the life of others, is this the law of a kind Creator? It is useless to say that pain has its benevolence, that massacre has its mercy. Why is it so ordained that bad should be the raw material of good? Pain is not less pain because it is useful; murder is not less murder because it is conducive to development. There is blood upon the hand still, and all the perfumes of Arabia will not sweeten it.

Reade suggested an alternative to the "Deus Paleyensis" which is not the concern here, and in any case it did not commend itself to Wallace. The latter held to an overall optimism expressed in the
199 assertion that the struggle for existence did not entail misery and pain, but rather "the maximum of life and of the enjoyment of life with the minimum of suffering and pain." For him, it was difficult "even to imagine a system by which a greater balance of happiness could have been secured."

Wallace's optimism lead him to a religious position which was to be a considerable embarrassment to his scientific colleagues, as
200 to some of his fellow-believers. He embraced spiritualism because it seemed to him to provide a "scientific", i.e. empirically based, explanation of the development of man's moral nature, which could be taken into the uniform law-bound pattern of explanation which he had
201 adopted. As F.M. Turner wrote of Wallace's book, The World of Life
202 of 1910, it was a "spiritualist theodicy", for in it, Wallace asserted that it was through the medium of "lesser spiritual intelligences that the guiding mind of the universe employed the cruelty and pain of earthly existence in the moral purpose of aiding man's evolution into a spiritual creature." The notion of the world being a process for

promoting the development of mind from matter had been employed before, but it was the theistic and "spiritualistic" version of it he developed which lead Wallace to part company with Darwin and his friends after 1869.

The question was whether natural selection could account for man's moral and mental nature, or indeed for certain features of the human body. From what Wallace supposed to be the implication of spiritualist phenomena, he invoked ²⁰⁴ "an Overruling Intelligence" which had watched over the action of the laws directing variations, so determining the accumulations of certain variations, "as finally to produce an organisation sufficiently perfect to admit of, and even to aid in, the indefinite advancement of our mental and moral nature." It seemed to Wallace

in the highest degree improbable that so many points of structure, all tending to favour his mental development, should concern man alone of all animals. If the erect posture, the freedom of the anterior limbs from purposes of locomotion, the powerful and opposable thumb, the naked skin, the great symmetry of form, the perfect organs of speech and, in his mental faculties, calculation of numbers, ideas of symmetry, of justice, of abstract reasoning, of the infinite, of a future state, and many others, cannot be shown to be each and all useful to man in the very lowest state of civilization - how are we to explain their co-existence in him alone of the whole series of organized beings?

These were Paley's questions re-phrased, which Darwin was hard put to it to begin even to attempt to answer. Wallace's optimism was that of the writer of Vestiges, and a theism bolstered up by spiritualism, was to be an infuriating exposition of "darwinism" to Darwin and his other supporters. Wallace's exposition of Darwinism in itself was invaluable, because of its clarity, and because, after all, he was one of the two original propounders of it in a coherent and convincing form. It was therefore to be all the more embarrassing that his "Concluding

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Remarks" should include the statement that "we, who accept the existence of a spiritual world, can look upon the universe as a grand consistent whole adapted in all its parts to the development of spiritual beings capable of indefinite life and perfectibility". He helped to oust special creation, and yet developed a theism which depended on the invocation of "an adequate cause" in "the unseen universe of Spirit".²⁰⁶ However, the rift with Darwin on theology was some way away from the occasion on which Wallace's paper, and that of Darwin, were read at a meeting of the Linnean Society in 1858.

We may now consider how Darwin came to make a contribution at that meeting, and the reaction to the publication of the Origin.²⁰⁷ King-Hele has made out a convincing case that Charles Darwin's version of evolutionary theory was a family affair. Whether Charles ever fully gave the credit that was due to his grandfather Erasmus, is somewhat debatable, but certainly the topics of the Zoonomia reappear²⁰⁸ in the Origin. Charles Darwin had re-read the Zoonomia and made²⁰⁹ notes on it in 1837-8, after his return from his voyage on the Beagle.²¹⁰ An undistinguished career as an undergraduate at Cambridge, with Paley and Euclid as the most significant influences in the²¹¹ shaping of his mind had at least provided him with some introduction²¹² to natural science. As a result he had begun to do some work with²¹³ Sedgwick, and then the greatest stroke of good fortune enabled him to join the Beagle expedition, on which he took Lyell's Principles of Geology to read. His record of what he saw included a few²¹⁴ interpretative comments. For example, "One day I observed a cormorant playing with a fish which it had caught. Eight times successively the bird let its prey go, then dived after it, and although in deep water,

brought it each time to the surface. In the Zoological Gardens I have seen the otter treat a fish in the same manner, much as a cat does a mouse: I do not know of any other instance where Nature appears so wilfully cruel". This remark begins to reveal the difference between his view of nature and that of Wallace. Also, one may compare Wallace's view of "savages" with Darwin's view of the Fuegians. ²¹⁵ "I could not have believed how wide was the difference between savage and civilized man: it is greater than between a wild and domesticated animal, in as much as in man there is a greater power of improvement". And, "One of our arms being bared, they expressed the liveliest surprise and admiration at its whiteness, just in the same way in which I have seen the ourangoutang do at the Zoological gardens." ²¹⁶

His voyage was invaluable to him. He wrote in the conclusion ²¹⁷ of his journal that it appeared to him

that nothing can be more improving to a young naturalist, than a journey in distant countries. It both sharpens, and partly allays that want and craving, which, as Sir J. Herschel remarks, a man experiences although every corporeal sense be fully satisfied. The excitement from the novelty of objects, and the chance of success, stimulate him to increased activity. Moreover, as a number of isolated facts soon become uninteresting, the habit of comparison leads to a generalization. On the other hand, as the traveller stays but a short time in each place, his descriptions must generally consist of mere sketches, instead of detailed observations. Hence arises, as I have found to my cost, a constant tendency to fill up the wide gaps of knowledge, by inaccurate and superficial hypotheses.

Darwin was now influenced primarily by Lyell, as his record of his travels exhibits. ²¹⁸ Like Lyell, he saw no need to adopt the hypothesis of transformism, though vague doubts about the permanence of species occasionally flitted across his mind. ²¹⁹ "On my return home in the autumn

of 1836, I immediately began to prepare my Journal for publication, and then saw how many facts indicated the common descent of species, so that in July, 1837, I opened a note-book to record any facts which might bear on the question. But I did not become convinced that species were mutable until, I think, two or three years had elapsed". As in the case of Wallace, a reading of Malthus helped him on his way. His 1842 sketch of the conclusions to which he came, and his essay of 1844, were regarded by him as essential stages towards his eventual production of the Origin. He not only straightened out his own idea, but could then select, as he said, the most striking facts and illustrations to suit it.

At the end of the 1842 sketch he could conclude that "specific forms are not immutable". Moreover, the "affinity of different groups, the unity of types of structure, the representative forms through which ^{the} foetus passes, the metamorphosis of organs, the abortion of others cease to be metaphorical expressions and become intelligible facts." The study of animal instinct of the distribution of animals, of geology, all gained if the hypothesis of transformism, rather than that of special creation correlated with fixity of species were assumed. Like Vestiges, Darwin supposed that "It accords with what we know of the law impressed on matter by the Creator, that the creation and extinction of forms, like the birth and death of individuals should be the effect of secondary ... means". Unlike Kingsley, who thought he discerned a supremely imaginative mind as the "cause" of polypes, Darwin thought it "derogatory that the Creator of countless systems of worlds should have created each of the myriads of creeping parasites and ... worms which have swarmed each day of life on land and water on ... one globe". For Darwin, as for Vestiges, his thesis seemed to

ease the problem of physical pain: 226

We cease being astonished, however much we may deplore that a group of animals should have been directly created to lay their eggs in bowels and flesh of other - that some organisms should delight in cruelty - that other animals should be led away by false instincts - that annually there should be an incalculable waste of eggs and pollen. From death, famine, rapine, and the concealed war of nature we can see that the highest good, which we can conceive, the creation of the higher animals has directly come.

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The conclusions of the second version of 1844, (the essay was nearly four times as long as the first sketch) included the same points.

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Both outlines concluded with a version of the paragraph which was to end the Origin :

There is a ... grandeur in this view of life with its several powers of growth, reproduction and of sensation having been originally breathed into matter under a few forms, perhaps into only one, and that whilst this planet has gone cycling onwards according to the fixed laws of gravity and whilst land and water have gone on replacing each other - that from so simple an origin, through the selection of infinitesimal varieties, endless forms most beautiful and most wonderful have been evolved.

The question was, could he bring himself to publish his ideas?

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So in a letter to Hooker in 1853, he said, "Lamarck is the only exception that I can think of, of an accurate describer of species, but he in his absurd though clever work has done the subject harm, as has Mr. Vestiges, and, as (some future loose naturalist attempting the same speculation will perhaps say) has Mr. D...." The immediate prodding came with the arrival of Wallace's essay, which shook him into the realisation that unless he published his work fairly quickly, his labours would be fruitless. 230 Lyell and Hooker between them thought up an acceptable way of allowing both men to receive the credit they deserved for their work, and both papers were read at a meeting of the

Linnean Society in July 1858. Darwin's paper was but half the length of Wallace's, but its title was significant. ²³¹ "On the variation of organic beings in a state of nature. On the natural means of selection; on the comparison of domestic races and true species." His opening sentence declared in defiance of Paley that "all nature is at war, one organism with another, or with external nature. Seeing the contented face of nature, this may at first well be doubted; but reflection will inevitably prove it to be true. The war, however, is not constant, but recurrent in a slight degree at short periods, and more severely at occasional most distant periods; and hence its effects are easily overlooked. It is the doctrine of Malthus applied in most cases with tenfold force."

²³² "Natural selection" was an analogy taken from the domestic breeding of animals and plants and meant simply the preservation of those individuals, "whether in their egg, or larval, or mature state, which are best adapted to the place they fill in nature."

Odd as it now seems, there was little discussion of the papers ²³³ at the meeting itself, partly because there were other papers to read, and partly because the president of the meeting was hostile to the suggestions made in the papers. Darwin himself was now in a strange position. In a Paleyan God he could no longer believe. Yet he had once had, what one might describe as a "religious" view of life ²³⁴ as expressed in his 1837 notebook. "If we choose to let conjectures run wild, then animals, our fellow brethren in pain, disease, death, suffering and famine - our slaves in the most laborious works, our companions in our amusements - they may partake ... our origin in one common ancestor - we may be all melted together." But belief for him as for Reade came to be virtually impossible because of his view of

what nature was like.²³⁵ "What a book a devil's chaplain might write on the clumsy, wasteful, blundering, low, and horribly cruel works of nature!" Darwin's capabilities for tackling theological questions could be summed up in his own words. "I am in thick mud; the²³⁶ orthodox would say in fetid, abominable mud." Yet he had to complete the "conversion" of Lyell to his own oddly theistic hypothesis.²³⁷

Lyell's capitulation took some time. In 1860 he reflected that if one ascribes progress to Natural Selection,

we simply defy that Power & it no longer bears any true analogy to the selection which the Breeder exercises in choosing or rejecting varieties offered to him by Nature or by the variety - creating Power. It becomes the union of a secondary Law with the divine First Cause - by which that law has been instituted. It is to confound the working of a secondary cause, the operation of which we can analyse and observe, with phenomena, which we can only refer to the divine First Cause by which the Universe was made.

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Lyell had a point in his remarks about the "deification of Natural Selection, and would not have his divine architect "confounded in his functions with ... the humble office of the most sagacious of breeders." And quite rightly, Lyell saw that the question of the existence of evil, and "of the power as the Manicheans have it, of another Cause capable of marring²³⁹ the creation", remained a difficulty for believers in progressive development as for the non-believers. Eventually Lyell came round only because he came to think that Darwin's²⁴⁰ hypothesis was the more "probable" of the alternative philosophies of nature.

Darwin was well served by his friends, especially by Wallace,²⁴¹ who consistently gave Darwin the credit for his book. Herbert Spencer also threw his weight into the scales by providing the phrase "the²⁴² survival of the fittest" as an explanatory alternative to "natural

selection". In essence, the phrase the survival of the fittest need have meant no more than what ^{survived} survived, though it was easily mis-read to mean that what survived, survived because it was fittest to fulfil a good purpose; it survived because it was best adapted to a good end. ²⁴³ The ambiguity of the language and indeed ²⁴⁴ of the full title of the Origin, which was not about the origin of species precisely if "origin" meant "creation", but about their differentiation and development, exhibited Darwin's theological problem. In his title, the words "the origin of species" lay in relation to "by means of natural selection or the preservation of favoured races in the struggle for life." ²⁴⁵ So Darwin described selection as "unconscious", as a "predominant Power"; ²⁴⁶ a power moreover, "incessantly ready for action," and as immeasurably superior to man's feeble efforts "as ²⁴⁷ the works of Nature are to those of Art".

In the light of this, one may consider the classic example from Paley which he chose to tackle - that of the eye: ²⁴⁸ "I remember well the time when the thought of the eye made me cold all over, but I have got over this stage of the complaint, and now small trifling particulars of structure often make me very uncomfortable. The sight of a feather in a peacock's tail, whenever I gaze at it, makes me sick!" Darwin had coped with the initial stage of shuddering over the problem, but a revealing passage in the Origin shows only too clearly that God had become a divine stockbreeder, and that Darwin ²⁴⁹ could not quite shake himself free of design theology:

It is scarcely possible to avoid comparing the eye with a telescope. We know that this instrument has been perfected by the long-continued efforts of the highest human intellects; and we naturally infer that the eye has been formed by a somewhat analogous process. But may not this inference be presumptuous? Have we any right to assume that the Creator works by intellectual

powers like those of man? If we must compare the eye to an optical instrument, we ought in imagination to take a thick layer of transparent tissue, with spaces filled with fluid, and with a nerve sensitive to light beneath, and then suppose every part of this layer to be continually changing slowly in density, so as to separate into layers of different densities and thicknesses, placed at different distances from each other, and with the surface of each layer slowly changing in form. Further we must suppose that there is a power represented by natural selection or the survival of the fittest, always intently watching each slight alteration in the transparent layers; and carefully preserving each which, under varied circumstances, in any way or in any degree, tends to produce a distincter image. We must suppose each new state of the instrument to be multiplied by the million; each to be preserved until a better one is produced, and then the old ones to be destroyed. In living bodies variation will cause the slight alterations, generation will multiply them almost infinitely, and natural selection will pick out with unerring skill each improvement. Let this process go on for millions of years; and during each year on millions of individuals of many kinds; and may we not believe that a living optical instrument might then be formed as superior to one of glass as the works of the Creator are to those of man?

What Willey has described as Darwin's "metaphysical unawareness"²⁵⁰ led him to make this sort of blunder without noticing what he was doing. He wanted "naturalism" but could not cope with his habits of theistic thinking nor employ them as Wallace employed them.

Darwin was soon able to identify his scientific and theological enemies. As expected, there was Sedgwick, who²⁵¹ laughed at parts of the Origin "till my sides were almost sore", but also found parts of²⁵² it "grievously mischievous", by which he meant that it was "the system of the author of the Vestiges stripped of his ignorant absurdities. It repudiates all reasoning from final causes; and seems to shut the door upon any view (however feeble) of the God of Nature as manifested in His works. From first to last it is a dish of rank materialism cleverly cooked and served up." Sedgwick, in his seventies,

was far less dangerous, however, than Owen, who not only wrote a clever and damaging review²⁵³ of the Origin, but also primed Wilberforce for his appearance at the meeting of the British Association at Oxford in 1860. It is Wilberforce's attack on Darwin which exemplifies the kind of passionate discussion which could still take place, in public, on a debateable issue. The attack also perhaps helps to explain Darwin's much criticised reluctance to draw too much attention to his predecessors, especially to his own grandfather's work.²⁵⁴

The Quarterly Review²⁵⁵ printed Wilberforce's analysis of the Origin and what he took to be its implications. "To find that mosses, grasses, turnips, oaks, worms and flies, mites and elephants, infusoria and whales, tadpoles and men, are all equally the lineal descendants of the same aboriginal common ancestor, perhaps of the nucleated cell of some primaeval fungus, which alone possessed the distinguishing honour of being the 'one primordial form into which life was first breathed by the Creator' - this, to say the least of it, is no common discovery - no very expected conclusion."²⁵⁶ Charles was directly compared²⁵⁷ with his grandfather, who had, according to Wilberforce, treated the subject with more wit than his grandson in the Botanic Garden : Upon the Darwin family's view of things it would appear probable that

the first efforts of Nature terminated in the production of vegetables, and that these, being abandoned to their own energies ... by degrees detached themselves from the surface of the earth, and supplied themselves with wings and feet, according as their different propensities determined them in favour of aerial and terrestrial existence; and thus, by an inherent disposition to society and civilisation, and by a stronger effort of volition, became men. These in the world restrict themselves to the use of their hind feet : their tails would

gradually rub off by sitting in their caves and huts as soon as they arrived at a domesticated state.

Wilberforce had not seen the point of what Darwin had said about natural selection, but was right to think that Darwin's views tended "to banish from the mind most of the peculiar attributes of the Almighty",²⁵⁸ since for Wilberforce, as for Sedgwick and Owen, creation was that "transcript in matter" of ideas eternally existing in God's mind.

Wilberforce's lead was to be followed for years to come,²⁵⁹ though not by all theologians,²⁶⁰ many of whom were in any case absorbed by the controversy caused by the publication of Essays and Reviews. Chambers might well find it a cause for laughter that "the layman had universally treated the controversy on the Essays and Reviews as a merely professional subject, and had not joined in it but had left it to the clergy."²⁶¹ Vestiges and the Origin both captured the imagination and interest of the public at large. But the Origin needed a champion, and the author, ailing and living in seclusion could not play the role. It fell to T.H. Huxley to join battle on Darwin's behalf.

Huxley had begun his intellectual adventures whilst still a child, after a brief period of schooling. He read Hutton's work on geology, William Hamilton on logic, Hume on history,²⁶² "Law, Divinity, Physic, and Politics being in a state of chaotic vibration between utter humbug and utter scepticism"²⁶³ science in general, and medicine and anatomy in particular, alone gave him scope for his energies and abilities. His own opportunity came with the voyage of the Rattlesnake, immediately after the publication of the Vestiges. (For him, as for Hooker, his expeditions did not provoke him to write a new philosophy of nature.) On his own admission, he wrote

on his return a needlessly savage review²⁶⁴ of the Vestiges.²⁶⁵

"What then is the real proposition of the 'Vestiges'? It is simply, exhibited in all its naked crudeness, the belief that a law is an entity - a Logos intermediate between the Creator and his works - which is entertained by the Vestigian in common with the great mass of those who, like himself, indulge in science at second-hand and dispense totally with logic."²⁶⁶ One finds in the review an indication that there might be some fundamental principles of thought of which one should take account in the discussion of nature. Huxley continued to point out²⁶⁷ that "creation in the manner of law" was not in any circumstances to be confused with the principles of Lyell's uniformitarianism. If we do admit Lyell's principles, he wrote, "we do not render those changes either more or less wonderful than they were before - nor do we in any way account for them - we merely state them in a readily conceivable way." The phrase "natural laws" was to be understood simply as "an epitome of the observed history of the phenomena of the universe". Huxley shared Powell's opinion, for "to assert that the Creator, from whom these phenomena proceeded, worked in the manner of natural law and that, therefore, there is no scope for wonder, is as if one should say that, in ancient Greece, he worked in the manner of Grote's History, and that, therefore, there is nothing remarkable in Greek civilization - that is to say the phrase is simply ridiculous and unmeaning."

In the early 1850's Huxley did not see that "progress" had any foundation in the facts of palaeontology, and in an essay of 1856, "On Natural History as Knowledge, Discipline and Power,"²⁶⁸ he could both advocate science, and write of it in relation to theology

in a manner which was not unlike Sedgwick's. "The value of any pursuit depends upon the extent to which it fulfils one or all of three conditions. Either it enlarges our experience; or it increases our strenght; or it diminishes the obstacles in the way of our acquiring experience and strength. Whatever neither teaches, nor strengthens, nor helps us, is either useless or mischievous."²⁶⁹ And with attention to natural history as knowledge he commented:²⁷⁰ "Thus in travelling from one end to the other of the scale of life, we are taught one lesson, that living nature is not a mechanism but a poem; not a mere rough engine-house for the due keeping of pleasure and pain machines, but a palace whose foundations, indeed, are laid on the strictest and safest mechanical principles, but whose superstructure is a manifestation of the highest and noblest art." This, Huxley said was "the plain teaching of Nature." He believed we had a right to "conclude from the marks of benevolent design" that there existed an "infinite Intellect and Benevolence, in some sort similar to our own". He felt similarly bound to conclude that "the aesthetic faculties of the human soul have also been foreshadowed in the Infinite Mind."

Huxley's sensitivity to religion, never left him, but it developed alongside his critical abilities, so that he never felt the bafflement and bewilderment of Darwin when trying to tackle a religious issue. Huxley was well aware of the contribution made by Leibniz²⁷¹ to the development of modern science, but it was not in Leibniz, but in the writings of Kant, that he seems to have found a way of thinking in a religious vein about nature, even though he repudiated the confusion of scientific and theological principles which he saw exhibited in Vestiges. Huxley had one priceless advantage

over most of his contemporaries when tackling Kant, in that he could read the latter's work in the original. He was probably the first English scientist²⁷² who could read and understand Kant's Universal Natural History without benefit of a translation. An essay of 1887 records his reflections on this essay and exhibits Huxley's ability to appreciate a religious viewpoint. Kant seemed to him to have a depth and profundity of mind far superior to that offered by the supposed defenders of religion in the controversy over the Origin. So Huxley wrote²⁷³ that

if imagination is used within the limits laid down by science disorder is unimaginable. If a being endowed with perfect intellectual and aesthetic faculties, but devoid of the capacity for suffering pain, either physical or moral, were to devote his utmost powers to the investigation of nature, the universe would seem to him to be a sort of kaleidoscope, in which, at every successive moment of time, a new arrangement of parts of exquisite beauty and symmetry would present itself; and each of them would show itself to be the logical consequence of the preceding arrangement, under the conditions we call the laws of nature. Such a spectator might well be filled with that Amor intellectualis Dei, the beatific vision of the vita contemplativa, which some of the greatest thinkers of all ages, Aristotle, Aquinas, Spinoza, have regarded as the only conceivable eternal felicity; and the vision of illimitable sufferings, as if sensitive beings were unregarded animalcules which had got between the bits of glass of the kaleidoscope, which mars the prospect to us poor mortals, in no wise alters the fact that order is lord of all, and disorder only a name for that part of the order which gives us pain.

It does not seem that Huxley realised that Kant was reflecting in his turn on Leibniz' work but at least such a passage shows that he was not a dogmatic hater of religion and of religious beliefs, merely because he had the good sense to oppose Wilberforce and anyone else who refused to discuss the issues raised by the publications of the Origin with a perceptive attentiveness, and in a spirit of rational consideration. "If I am doing my best to rouse my countrymen out

of their dogmatic slumbers, it is not that they may be amused by seeing who gets the best of it in a contest between a 'scientist' and a theologian. The serious question is whether theological men of science, or theological special pleaders are to have the confidence of the general public".²⁷⁴ Obviously, Huxley himself may be seen as a theologically minded man of science, which is not to say that he confused his theology with his science proper. The other philosopher important to him was Hume. He thought for years of publishing a book about him, and managed to produce it for 1879. The book was not a trivial exercise to display Huxley's range of abilities to the general public. It was in part his statement of why he had fought for Darwin in particular, and for liberty of discussion in general. It may be read as an exposition of the reasons why Hooker was right to insist that science as such should be kept free from control by theology, though unlike Hooker, Huxley wanted to take genuine theology seriously, as seriously as he took good science.

In Hume, Huxley tackled a range of philosophical and theological questions, but one should look to his chapter on "The object and scope of philosophy"²⁷⁵ for information about his philosophical stance in relation to the practice of science. He opened his chapter with Kant's three questions, "What can I know? What ought I to do? and For what may I hope?" The three resolved themselves into the first. "For rational expectation and moral action are alike based upon beliefs; and a belief is void of justification, unless its subject matter lies within the boundaries of possible knowledge, and unless its evidence satisfies the conditions which experience imposes as the guarantee of credibility." A study of Hume's work, followed by that of Kant's first

critique,²⁷⁶ different though their respective criticisms were in detail, coincided in their main result, "which is the limitation of all knowledge of reality to the world of phenomena revealed to us by experience." Huxley regarded these two philosophers, though especially Hume, as exhibiting his own stance, which he described as "agnosticism". The agnostic professed "an incapacity to discover the indispensable conditions of either positive or negative knowledge, in many propositions, respecting which, not only the vulgar, but philosophers of the more sanguine sort, revel in the luxury of unqualified assurance." Moreover, agnosticism was not merely a "creed" but a method, the operation of a principle intelligently adopted and conscientiously practiced. Expressed positively, as he wrote in an essay of 1889²⁷⁷ on the subject, it read, "In matters of the intellect, follow your reason as far as it will take you, without regard to any other consideration." And negatively, "In matters of the intellect do not pretend that conclusions are certain that are not demonstrated or demonstrable." This Huxley took to be "the agnostic faith, which if a man keep whole and undefiled, he shall not be ashamed to look the universe in the face, whatever the future may have in store for him."

However, Huxley's appreciation of what Hume had to say about theism,²⁷⁸ had not destroyed his sympathy with, and generosity towards, the religious and theological mind at its best. It is true that for him as for some of his contemporaries, the principal description of the deity had become "Unknown and Unknowable",²⁷⁹ So Huxley wrote,²⁸⁰ for example, of "this sadness, this consciousness of the limitation of man, this sense of an open secret which he cannot penetrate" in which "lies the essence of all religion; and the attempt to embody it

in the forms furnished by the intellect is the origin of the higher theologies." (One notes also that in 1859 he had read Mansel's Bampton Lectures and greatly admired them.²⁸¹) And further,

The question of questions for mankind - the problem which underlies all others, and is more deeply interesting than any other - is the ascertainment of the place which Man occupies in nature and of his relations to the universe of things ... Most of us, shrinking from the difficulties and dangers which beset the seeker after original answers to these riddles, are contented to ignore them altogether, or to smother the investigating spirit under the featherbed of respected and respectable tradition. But, in every age, one or two restless spirits, blessed with that constructive genius, which can only build on a secure foundation, or cursed with the mere spirit of scepticism, are unable to follow in the well-worn and comfortable track of their forefathers and contemporaries, and unmindful of a thousand stumbling blocks, strike out into paths of their own. The sceptics end in the infidelity which asserts the problem to be insoluble, or in the atheism which denies the existence of any orderly progress and governance of things: the men of genius propound solutions which grow into systems of Theology or Philosophy, or veiled in musical language which suggests more than it asserts, takes the shape of the poetry of an epoch. ²⁸²

In the light of this material we may now consider Huxley's reasons for supporting Darwin whilst maintaining his awareness of the theological issues at stake. He would not have attended the 1860 meeting of the British Association in Oxford had it not been for a chance meeting with Chambers,²⁸³ to whom he remarked that he "did not see the good of giving up peace and quietness to be episcopally pounded." Chambers, however, pleaded with him not to desert Darwin's friends at the meeting, so along Huxley went, and found his opportunity provided by Wilberforce's misrepresentation of what was at issue. Apart from the fact of Huxley's having asserted, in reply to the bishop,

that he was not ashamed to have a monkey for his ancestor, he had some valid points to put which were reliably reported in the Athenaeum.²⁸⁴ Darwin's theory was an explanation of phenomena in Natural History, as the undulatory theory was of the phenomena of light. No one objected to that theory because an undulation of light had never been arrested and measured. Darwin's theory was an explanation of facts, and his book was full of new facts, all bearing on his theory. Without asserting that every part of that theory had been confirmed, he maintained that it was the best explanation of the origin of species which had yet been offered. With regard to the psychological distinction between men and animals, man himself was once a monad - a mere atom, and nobody could say at what moment in the history of his development he became consciously intelligent. The question was not so much one of a transmutation or transition of species, as of the production of forms which had become permanent.

Knowing that Huxley continued to read a great deal of philosophy throughout the early 1860's it may well be that he could adopt such a dispassionate view of Darwin's book because of his comprehension of the problems involved in discussing nature. This in itself gave him an advantage over those who felt they had either a scientific or a theological position to defend at all costs. His own particular contribution to the debate was represented especially by Man's place in Nature²⁸⁵ of 1863, as well as by his reviews²⁸⁶ of the Origin and his many lectures and public discussions of the issues. If one takes some of his remarks in those reviews to begin with, one can see his temper, and his wit, brought to bear on the problem. He raised the question²⁸⁷ of "what is a species?" For, as he remarked,

"Even in the calm region of entomology, where, if anywhere in this sinful world, passion and prejudice should fail to stir the mind, one learned coleopterist will fill ten attractive volumes with descriptions of species of beetles, nine-tenths of which are immediately declared by his brother beetle-mongers to be no species at all."

In trying to sort species out, the investigator probably started with but one clear conviction in mind,²⁸⁸ namely, "that every part of a living creature is cunningly adapted to some special use in its life. Has not his Paley told him that that seemingly useless organ, the spleen, is beautifully adjusted as so much packing between the other organs?" This conviction, however, does not account for many of his findings. "A man in his development runs for a little while parallel with, though never passing through, the form of the meanest worm, then travels for a space beside the fish, then journeys along with the bird and the reptile for his fellow travellers; and only at last, after a brief companionship with the highest of the four-footed and four-handed world, rises into the dignity of pure manhood."

And it was important to be clear about the connection frequently made between holding the notion of the fixity of species and special creation.²⁸⁹ "The second position is obviously incapable of proof or disproof, the direct operations of the Creator not being subjects of science; and it must therefore be regarded as a corollary from the first, the truth or falsehood of which is a matter of evidence." It was to these questions that Darwin had turned his attention, and since what he offered was not a repetition of the nonsense of either Lamarck or the Vestiges, and because Darwin himself was modest in his claims, but supported them with the results of twenty years of investigations,²⁹⁰ he deserved a fair hearing. Huxley made it absolutely clear²⁹¹ that

to give Darwin's book the consideration due to it was not to "affirm either the truth or falsehood of Mr. Darwin's views at the present stage of the inquiry." Only years of work would enable naturalists to say "whether the modifying causes and the selective power," which Darwin had shown existed in nature, were competent to produce all the effects ascribed to them, or whether Darwin had been led to overestimate "the value of his principle of natural selection, as greatly as Lamarck over-estimated his vera causa of modification by exercise."

Another review, much of which was a lecture²⁹² given before the publication of the Origin, made a comment²⁹³ which was in fact a warning to a number of scientists : "Geologists and palaeontologists write about the 'beginning of life' and the 'first-created forms of living beings,' as if they were the most familiar things in the world; and even cautious writers seem to be on quite friendly terms with the 'archetype' whereby the Creator was guided 'amidst the crash of falling worlds'". To rule out that particular kind of "explanation" was not necessarily to divest oneself of all religious language. It is interesting to note one passage which reveals Huxley's own fascination with *design* theology, when discussing the development of a plant or animal from its embryo,²⁹⁴ as an example of one of nature's "perennial miracles." The changes undergone by the "plastic matter" of an egg are rapid, yet steady and purposelike, so that

one can only compare them to those operated by a skilled modeller upon a formless lump of clay. As with an invisible trowel, the mass is divided and subdivided into smaller and smaller portions, until it is reduced to an aggregation of granules not too large to build withal the finest fabrics of the nascent organism. And, then, it is as if a delicate finger traced out the line to be occupied by the spinal column, and moulded the contour of the body; pinching up the head at one end, the tail

at the other, and fashioning flank and limb into due salamandrine proportions, in so artistic a way, that, after watching the process hour by hour, one is almost involuntarily possessed by the notion, that some more subtle aid to vision than an achromatic, would show the hidden artist, with his plan before him, striving with skilful manipulation to perfect his work.

Huxley knew, he said,²⁹⁵ that the phenomena of vitality were one with other physical phenomena, "and matter and force are the two names of the one artist who fashions the living as well as the lifeless." Huxley noted that philosophically speaking, what Darwin had said was in accordance with Mill's principles of scientific method.²⁹⁶ Darwin had employed observation and experiment, reasoned from the data with which he had furnished himself, and tested the validity of his reasoning by "comparing his deductions with the observed facts of Nature." But the value of the book did not depend²⁹⁷ on "the ultimate justification of the theoretical views it contains". Even if they were to be immediately disproved, it would still be the best compendium of well-sifted facts available. And in an essay of 1864, dealing with a whole series of criticisms of the Origin, one finds Huxley directly tackling an example proposed by Paley. Just as Darwin had tackled Paley's illustration of the eye, Huxley tackled the illustration of the watch.²⁹⁸ Suppose, said Huxley, that someone had been able to show "that the watch had not been made directly by any person, but that it was the result of the modification of another watch which kept time but poorly; and that this again had proceeded from a structure which could hardly be called a watch at all- seeing that it had no figures on the dial and the hands were rudimentary; and that going back and back in time we came at last to a revolving barrel as the earliest traceable rudiment of the whole fabric." If

it were then possible to imagine that these changes had resulted from a tendency of the structure to vary indefinitely, and that there was something "in the surrounding world which helped all variations in the direction of an accurate time-keeper, and checked all those in other directions", then (as Shc pointed out) the force of Paley's argument would be gone. The point of Huxley's suggestion was indicated in the following sentence, in his assertion that what naturalists were out to do was to show how an organism adapted to a particular purpose might be the result of "a method of trial and error worked by unintelligent agents, as well as of the direct application of the means appropriate to that end, by an intelligent agent." So as he said, a few paragraphs later,²⁹⁹ despite its mistaken approach, the problem of teleology had nevertheless kept the reality of adaptation before men's minds "without being false to the fundamental principles of a scientific conception of the universe."

To turn now to Huxley's work, one recalls that one of the paragraphs from Man's place in Nature has already been cited.³⁰⁰ Huxley also made an important point which attempted an answer to Wallace, (and which one also finds in effect in the writing of Medawar³⁰¹). Huxley asked the questions which puzzled and worried many, and which had to be answered before people could accept the implications of Darwin's thesis for themselves.³⁰² "Is it, indeed, true, that the Poet, or the Philosopher, or the Artist whose genius is the glory of his age, is degraded from his high estate by the undoubted historical probability, not to say certainty, that he is the direct descendant of some naked and bestial savage?" Or was "the philanthropist or the saint to give up his endeavours to lead a noble life, because the

simplest study of man's nature reveals, at its foundations, all the selfish passions and fierce appetites of the merest quadruped? Is mother-love vile because a hen shows it, or fidelity base because dogs possess it?" Man, after all, was now "transfigured from his grosser nature by reflecting, here and there, a ray from the infinite source of truth." ³⁰³

In connection with Huxley's theology, given his view of Kant's Universal Natural History one also notes the way in which he could believe, ³⁰⁴ though no facile optimist, since he was writing after the death of one of his children, that "the Divine Government (if we may use such a phrase to express the sum of the 'customs of matter') is wholly just." Another way of putting this was to say ³⁰⁵ that "the ledger of the Almighty is strictly kept, and every one of us has the balance of his operations paid over to him at the end of every minute of his existence." But man's relationship to God was problematic, to say the least. Huxley also held a view of the universe which was that it was ³⁰⁶ "like to a great game being played out," and "we poor mortals are allowed to take a hand. By great good fortune the wiser among us have made out some few of the rules of the game, as at present played. We call them 'Laws of Nature', and honour them because we find that if we obey them we win something for our pains. The cards are our theories and hypotheses, the tricks our experimental verifications". The metaphysicians seemed to be trying to find out whether the cards were made of pasteboard or gold-leaf - hardly a sane activity in Huxley's opinion, "given the rules of the game and the winnings". His metaphor of the game with the unknown player, with human beings searching for a comprehension of some of the rules, is yet another way of indicating his caution in his appraisal of

religious argument, for all that he had hit upon the model of God as "artist" and could employ it skilfully.

His caution is evident particularly when he came to tackle the problem of physical evil. He wrote to Darwin in 1876:³⁰⁷ "If we are to assume that anybody has designedly set this wonderful universe going, it is perfectly clear to me that he is no more entirely benevolent and just in any intelligible sense of the words, that he is malevolent and unjust. Infinite benevolence need not have invented pain and sorrow and all-infinite malevolence would very easily have deprived us of the large measure of content and happiness that falls to our lot." This is his Humean position³⁰⁸ in regard to the investigation of nature, carried over into his consideration of natural theology. On the other hand life properly lived was worth living,³⁰⁹ "and would be even if a malevolent fate had decreed that we should suffer, say, the pangs of toothache two hours out of every twenty-four." To such a position he held, despite also being able to write that³¹⁰ "If our ears were sharp enough to hear all the cries of pain that are uttered in the earth by man and beasts, we should be deafened by one continuous scream." Yet, as he continued, "the wealth of superfluous loveliness in the world condemns pessimism. It is a hopeless riddle."

Therefore, whilst it was on some sense true that evolution accounted for morality,³¹¹ he could not urge that the principle of natural selection, or the survival of the fittest, should be adopted as an ethical principle: "The faith which is born of knowledge", he wrote in his Evolution and Ethics,³¹² "finds its object in an eternal order, bringing forth ceaseless change, through endless time, in endless space; the manifestations of the cosmic energy alternating

between phases of potentiality and phases of explication. It may be that, as Kant suggests, every cosmic magma predestined to evolve into a new world, has been the no less predestined end of a vanished predecessor." But when Huxley came to view the biological process in this particular world,³¹³ he found himself obliged to contrast the state of nature and the state of art - "art" was not exemplified in a garden produced by human intelligence and energy. He found that such a state of art could be maintained only by³¹⁴ "the constant counteraction of the hostile influences of the state of nature." Consequently, theodicies were an "ingenious and plausible form of pleading", though he did not indicate that he knew of Leibniz' effort, or of Kant's critique of theodicy. He could have picked up the references from Mansel's Bampton lectures, but even without reading the classical discussions, the incongruity of the propositions expressing the problem of physical evil in relation to theistic propositions was obvious enough, or seemed so to him. "Before the grim realities of practical life the pleasant fictions of optimism vanished. If this were the best of all possible worlds, it nevertheless proved itself a very inconvenient habitation for the ideal sage." Finally,³¹⁵ Cinderella is told that she is devoted to low and material interests, but

'she sees the order which pervades the seeming disorder of the world; the great drama of evolution, with its full share of pity and terror, but also with abundant goodness and beauty unrolls itself before her eyes; and she learns, in her heart of hearts, the lesson, that the foundation of morality is to have done, once and for all with lying; to give up pretending to believe that for which there is no evidence, and repeating unintelligible propositions about things beyond the possibilities of knowledge .

Huxley had learned something important from Kant, and like him could

not altogether reconcile that he believed to be the nature of the cosmic process with his own moral confidence, dependent as he was on his apprehension and interpretation of natural phenomena.

Nevertheless, he shared with Kant an appreciation of a fundamental point of morality, which was as applicable to his approach to science as it was to his approach to theodicy.

We may now look at the final example chosen for this study, and at his comments on some aspects of the theology of his day. With Mill, one finds oneself in a sense having turned full circle, despite the vast difference that existed between a man such as Bayle, in his society, and Mill, in his. If, for example, one takes the possibility of some form of persecution for views thought to be hostile or critical of received opinion one finds Mill well aware of it as were Chambers and Darwin. His work On Liberty published in the same year as the Origin was a suitable touchstone for the treatment of Darwin's work, with its plea for intellectual freedom.³¹⁶ The waning of the period when such a plea was necessary may be taken to have been marked by Lecky,³¹⁷ remarking that it was during the second half of the nineteenth century that there was a conspicuous change in English life in "the great enlargement of the range of permissible opinions on religious subjects". This, he thought, had been particularly furthered by the habit which sprang up about 1865, of signing articles in periodicals, and of the editors of those periodicals allowing a variety of opinion to be expressed.

Also, if one takes Bayle's pre-occupation with what could be meant by the goodness of God, this is certainly to be found in Mill, notoriously in his comments³¹⁸ on Mansel's Bampton lectures:

"If in ascribing goodness to God I do not mean what I mean by goodness;

if I do not mean the goodness of which I have some knowledge, but an incomprehensible attribute of an incomprehensible substance, which for aught I know may be a totally different quality from that which I love and venerate ... what do I mean by calling it goodness? and what reason have I for venerating it? If I know nothing about what the attribute is, I cannot tell that it is a proper object of veneration." Mill, like Huxley, held that "to assert in words what we do not think in meaning, is as suitable a definition as can be given of a moral falsehood." And as he emphasised,³¹⁹ "the doubt whether words applied to God have their human signification, is only felt when the words relate to his moral attributes; it is never heard of in regard to his power. We are never told that God's omnipotence must not be supposed to mean an infinite degree of the power we know in man and nature". The problem in the interpretation of the divine goodness arose because it appeared to be necessary to teach doctrines respecting God which "conflict irreconcilably with all goodness that we can conceive."

In these remarks Mill already indicated the view of theism which he had already worked out in part, before the publication of his book on Hamilton's philosophy. Like Hume before him, whose position he well comprehended, his essays on theism and religion³²⁰ were not published as and when they were written. The first two were written in the mid eighteen-fifties, though according to Harriet Taylor,³²¹ he had intended to publish at least the essay on "Nature", when he had completed that on "Theism" in 1873. Although there had been a considerable lapse of time between the writing of the essays, they were fundamentally consistent one with another. It will be useful to

consider the first two essays, at least, as documents of the 1850's rather than of the 1870's when trying to assess their arguments, and especially when trying to see whether the new views of nature being brought to the fore and widely popularised had any effect on the presentation of the arguments. Leaving these essays for later consideration, one finds also that Mill's Logic, together with his comments on Mansel, provides another clue as to his approach. The first edition of the work, published in 1843, had taken him thirteen years to write, and had a number of aims, one of which was to provide a critique of "rationalism" in all its manifestations, including the rationalism of Kant.³²² It was the last section of the work, "On the Logic of the Moral Sciences",³²³ which some have found disappointing. Packe³²⁴ said of it that it claimed for reason more than it could achieve. Whereas that might have been expected in the first edition, perhaps it would have been not unreasonable to have expected some awareness of the new picture of nature and of man's relationship to it informing that section of the work at least in its later editions. "It was to nature first, and not to human nature that he should have directed observation." It is possible that Mill did not wish to become embroiled in the controversy about theism that such observation would have involved, assuming that he had the competence to master the necessary material. He was too well aware of the problems of the exercise to make the mistake of embarking on a study in which he could not succeed, given the little time he would have had available for it in the light of all his other pursuits. Although, as already noticed, he was acquainted with some of the most influential group of scientists involved in promoting the new view of nature he may well have felt it wise to leave their theorising to

them, provided that it accorded with what seemed to be the right kind of logical procedures. However, perhaps one could have expected a re-phrasing of the material on classification in the Logic,³²⁵ where a discussion which embraces Aristotle at the one end of the spectrum goes only as far as Cuvier³²⁶ at the other, with no more than a comment on classification being made "by Nature" and "by us for our convenience".³²⁷ One might have expected more from him, given that he had been so influential in providing a logical and philosophical support for Darwin's thesis.³²⁸ He did no more than add a note in the fifth edition of 1862 of which Huxley no doubt knew, on the status of Darwin's approach in the light of his own principles.³²⁹

Mr. Darwin's remarkable speculation on the Origin of Species is another unimpeachable example of a legitimate hypothesis. What he terms 'natural selection' is not only a vera causa, but one proved to be capable of producing effects of the same kind with those which the hypothesis ascribes to it: the question of possibility is entirely one of degree. It is unreasonable to accuse Mr. Darwin (as has been done) of violating the rules of Induction. The rules of Induction are concerned with the conditions of Proof. Mr. Darwin has never pretended that his doctrine was proved. He was not bound by the rules of Induction but by those of Hypothesis. And these last have seldom been more completely fulfilled. He has opened a path of inquiry full of promise, the results of which none can foresee. And is it not a wonderful feat of scientific knowledge and ingenuity to have rendered so bold a suggestion, which the first impulse of every one was to reject at once, admissible and discussable, even as conjecture?

It may be that on the matter of the logic of classification Mill may have felt that however species came into being, supposing that Darwin's ideas could be justified, the logic of the discussion of species would remain the same. Darwin was delighted³³⁰ to receive the news of Mill's approbation of his work, even before that approbation appeared in print,

for as he said, he had begun to think that he did not know how to reason scientifically.

Mill's sensitivity to the problems of society made him a determined opponent of anyone who wanted to promulgate a harsh and uncaring attitude towards the less fortunate, particularly when that attitude was bolstered up by "darwinism". His comments now reveal his own indictment of the deity. For example, in his Utilitarianism³³¹ of 1863, he wrote³³² that in a world in which there is so much to interest, so much to enjoy, and so much also to correct and improve, every one who had a moderate endowment of moral and intellectual requisites could enjoy an existence which could be called enviable. No-one should be denied the use of the sources of happiness by bad laws or subjection to the will of others, and given that liberty, a person would then have only to escape "the indigence, disease, and the unkindness, worthlessness or premature loss of objects of affection". The main stress of the problem lay "in the contest with these calamities, from which it is a rare good fortune entirely to escape: which as things are now, cannot be obviated, and often cannot be in any material degree mitigated". Mill thought that many even of these positive evils might be removable by man, or at any rate confined within narrow limits. "Even that most intractable of enemies, disease, may be indefinitely reduced in dimensions by good physical and moral education, and proper control of noxious influences; while the progress of science holds out a promise for the future of still more direct conquests over this detestable foe". One might say that Mill, like Bayle, felt the grief that came from reflection that suffering of one kind or another, seemed to have been woven into the very stuff of life. Human care and effort was required, and though the removal of the causes

of human suffering might be slow, "though a long succession of generations will perish in the breach before the conquest is completed, and this world becomes all that, if will and knowledge were not wanting, it might easily be made - yet every mind sufficiently intelligent and generous to bear a part, however a small and inconspicuous, in the endeavour, will draw a noble enjoyment from the contest itself, which he would not for any bribe in the form of selfish indulgence consent to be without".

Wallace was at a dinner party³³³ with Mill in 1870 and tried to tackle the latter on his view of God and the world, since Wallace was pursuing his optimistic view of nature in relation to human society, which he believed benefited from the greatest possible variety of character, arising from the immense variety of beings in the natural order. When confronted by Grote with the "ordinary idea"³³⁴ of an eternal, omniscient and benevolent deity, "because anything else was almost unthinkable", Mill replied "that whoever considered the folly, misery, and badness of the bulk of mankind" found the belief unthinkable. It would imply "that God could have made man good and happy, have abolished evil, and has not done so". Mill dogmatically repeated that "an omnipotent God might have made man wise, good, and happy, and as He had not chosen to do so it was absurd for us to believe in such a being and call Him almighty and good". It was clear that Mill could not discuss the subject in any other terms. Again, thus far, Mill's problem is like Bayle's problem. But Mill found that whilst not wanting to undermine theism,³³⁵ and revering Christ, he could not get much beyond the position of asserting "that the world was made, in whole or in part by a powerful Being who cared for man". This appeared to him, though not proved, as a very probable

hypothesis. Bayle's God meant more to him than that.

If one now turns to the three essays on religion, bearing in mind that those on "Nature" and on the "Utility of Religion" were written in the 1850's, one finds, in the first case, Mill writing the obituary of a concept.³³⁶ He proposed to inquire³³⁷ "into the truth of the doctrines which make Nature a test of right and wrong, good and evil, or which in any mode or degree attach merit or approval to following, imitating, or obeying Nature." Every approved triumph of "Art"³³⁸ over "Nature" is in itself an acknowledgement that "the ways of Nature are to be conquered, not obeyed: that her powers are often towards man in the position of enemies, from whom he must wrest, by force and ingenuity, what little he can for his own use, and deserves to be applauded when that little is rather more than might be expected from his physical weakness in comparison to those gigantic powers." One possible comparison with Huxley's views is obvious. Religious persons ought to face the fact,³³⁹ "that the order of nature, in so far as unmodified by man, is such as no being whose attributes are justice and benevolence, would have made, with the intention that his rational creatures should follow it as an example." Nor was Mill impressed by the experience of awe at the sight of natural phenomena. "Those in whom awe produces admiration may be aesthetically developed, but they are morally uncultivated".³⁴⁰ Awe involves the experience of a feeling "closely bordering on pain"; it is related to a conception of power, even when that power may be such as to make us conscious of its ability to inflict evil. And Mill could provide ample illustration of the point³⁴¹ that the physical government of the world was full of things "which when done by men are deemed the greatest enormities". Nature could not by analogy serve as a guide for our actions.

Nor could Mill accept the superstition that pain ennobles,³⁴² and he thought little of those "who have deemed themselves qualified to 'vindicate the ways of God to Man'" and who have hardened their hearts and denied that misery is an evil.³⁴³ Accordingly, the only admissible moral theory of creation³⁴⁴ is "that the Principle of Good cannot at once and altogether subdue the powers of evil, either physical or moral; could not place mankind in a world free from the necessity of an incessant struggle with the maleficient powers, or make them always victorious in that struggle, but could and did make them capable of carrying on the fight with vigour and with progressively increasing success." One returns yet again to Bayle's setting of the alternatives. However, Mill's "solution" somehow enabled him to retain some meaning for the word "Providence",³⁴⁵ now understood as "the sympathizing support of a powerful and good Governor of the world" when man's role is that of "a not ineffectual auxiliary". People who have believed in providential support have never really believed God to be omnipotent. "They have believed that he could do any one thing, but not any combination of things." It is at this stage that Leibniz' Theodicy returns to the scene, so to speak. It may be, given his knowledge of French, that Mill had taken Leibniz seriously enough to have read his work for himself and in this respect, he is a rare phenomenon in the mid-nineteenth century. Mill ruthlessly drew out the possible implications of what Leibniz had said about God in order to deny the credibility of a classical theodicy in terms of a calculation of the operation of the divine perfections in creation. Leibniz' work, he wrote,³⁴⁶ was "so strangely mistaken for a system of optimism, and, as such satirized by Voltaire on grounds which do not even touch the author's argument. Leibniz does not maintain that this world is the best of all imaginable,

but only of all possible worlds; which, he argues, it cannot but be, inasmuch as God, who is absolute goodness, has chosen it and not another." The first point is that Mill had hit on an essential difference between Voltaire and Leibniz; the second, that he proceeded to comment on the notion of the "region of the eternal verities", which was a problematic feature of the Theodicy. Leibniz, he wrote, in every page, "tacitly assumes an abstract possibility and impossibility, independent of the divine power". His pious feelings made Leibniz continue to designate that power by the word "omnipotence", but given the context for God's operation, the term could only mean "power extending to all that is within the limits of that abstract possibility." The power of Mill's deity was limited, not by abstract possibility, but by the realities of physical and moral evil. Further, making his remarks appropriate to design-theology specifically, Mill reminded³⁴⁷ the advocates of "special design in creation" that "one of the things most evidently designed is that a large proportion of all animals should pass their existence in tormenting and devouring other animals. They have been lavishly fitted out with the instruments necessary for that purpose; their strongest instincts impel them to it, and many of them seem to have been constructed incapable of supporting themselves by any other food." From material provided by the biologists enough examples could be found to "blacken the character of the Creator", even more than Hume had done.

In the second essay, on the "Utility of Religion" Mill had to face the point that the Christ whom he revered was purported to be identical with the author of nature. For all his knowledge of Coleridge,³⁴⁸ he had not found a way of reading scripture such as to find in it a source of theology, though it was a possible source of moral principles.

He compared and contrasted the author of nature with the author of the sermon on the mount.³⁴⁹ As he had shown when commenting on Mansel, Mill would not worship mere power, and it is with power that the traditional understanding of God leaves us if we cannot make sense of God's goodness and justice. The only possible alternative theory³⁵⁰ of the origin and government of the universe which stood wholly clear "both of intellectual contradiction and of moral obliquity", seemed to be some version of the theory of the Manicheans which involved placing a limitation on the deity's power. Mill had already said something about that proposal. Man would then be called to worship that being³⁵¹ "to whom we owe all the benevolent contrivance we behold in Nature", - there could be some minimal value to be found in Paley³⁵² after all. That worship would include becoming one of God's fellow-combatants.

In the final essay one finds Mill thinking of his deity, especially in the light of what he had comprehended of the results of the geological and biological sciences of his day.³⁵³ This time he proposed to examine the question of theism as though it were itself a matter of scientific enquiry.³⁵⁴ He allowed that the phenomena of nature took place according to general laws, and that these might be the result of the exercise of a sovereign will. So he embarked on an examination of the classical arguments for God's existence. Here Mill showed what he had learned from Kant,³⁵⁵ "the most discriminating of the a priori metaphysicians". Kant had kept the two questions of the origin and composition of our ideas, and the reality of the objects which might be supposed to correspond to them, perfectly distinct. Kant's deity was necessary, not by a logical, but by a practical necessity, imposed by the moral law. As Mill commented,

"it is not perfectly clear whether Kant's meaning is that conviction of a law includes conviction of a lawgiver, or only that a Being of whose will the law is and expression, is eminently desirable." To reject Leibniz, was not, after all, necessarily to follow Kant. God might or might not be necessary to morality, even when morality included "feeling", but in any case, feeling understood as the desire for God did not necessarily imply the truth of God's existence. As Mill had already shown, Leibniz' optimism,³⁵⁶ an expression of a desire to believe in the goodness of God, had not proved to be a satisfactory ground for a rationally determined belief. Kant apparently had nothing helpful to offer.

Mill's "scientific" investigation proceeded to compare Paley's argument with that of Darwin, taking the example of the eye, as Darwin had taken it, for discussion.³⁵⁷ He considered the eye in its connection with sight in relation to two possible "links".³⁵⁸ On the one hand he suggested "Creative forethought", and on the other, the principle of the survival of the fittest. The latter had resulted in a somewhat startling and improbable hypothetical history of nature (as Kant had feared). That history of nature could be supposed to be not inconsistent with creation, but "it must be acknowledged that it would greatly attenuate the evidence for it." Although Mill did not spell^{out} his meaning of "creation" he did say that the adaptations in nature afforded a large balance of probability³⁵⁹ in favour of creation by intelligence. He was still some way from the confidence of Powell's assertions. In other words, he could admit the uninformative conclusion of Hume's Dialogues and no more. Mill, like Hume, did not find that the Manichean hypothesis made sense unless re-phrased as he suggested, but nor could he make comprehensible to himself the attributes

of God as traditionally defined, in relation to his view of things.³⁶⁰ Even contrivance could be seen as a mode of overcoming difficulties,³⁶¹ (a point which Paley had noticed and with which he had attempted to deal). The only factor of which Mill seemed to be certain in respect of God's government of the world was that either God could not, or would not, give men everything they wanted.

So Mill came to propose in effect, his own image³⁶² as an appropriate image of a possible deity. Just as he himself hoped that men in society would eventually overcome the causes of human suffering, so he hoped that there could be some meaning in a promise of "the very distant but not uncertain final victory of Good."³⁶³ However, making sense of God's goodness by limiting his power, he inevitably attenuated what he could say about an ultimate victory of those values in which he believed, as he had attenuated the meaning of Providence. There was no guarantee that God was more effective than men were themselves. Bain might well question³⁶⁴ whether, "after painting the world in such gloomy hues, he could set up a Deity, that would replace, in the hearts of men, the one that he undertook to destroy."

One might think that it was better to admit bafflement, with Darwin, and reliance on one's own resources, with Huxley, than to prefer such a deity. And Chamber's law-giver, or Powell's presiding mind, would be preferable to Mill's gloomy reflection. He could after all, have picked up from Leibniz, as Huxley had from Kant, some appreciation of the world's splendour, which might have made him think somewhat differently. Huxley could perhaps have been prodded to commit himself to the enquiry which M.B. Foster proposed,³⁶⁵ about what theology his philosophy of nature implied or whether it implied one. Only in that way, perhaps, having found a way of correlating³⁶⁶ the phenomena

of the organic world by means of the hypothesis of evolution in Darwin's interpretation of it, (although that needed substantiation)³⁶⁷, could he and others have protested the status of their "religious" experience, if that was what they were attempting to do by means of their theological reflection.

One concludes that whatever the theologians were saying at the time does not seem to have impinged on the "philosophers" of nature to whom attention has been drawn. The work of Leibniz, Kant and Coleridge, when known to them, was not understood, or not appreciated in a way which could have proved helpful to them. Certainly the nineteenth century "philosophers of nature" are a long way, even the most optimistic of them, from the production of an affirmation of faith which could begin to resemble a twentieth-century example:³⁶⁸

We affirm the power of God. We are not able to trace out in detail the workings of the power he exerts; and there are manifestations of power in the universe which appear to suggest that all is not under his control. But we know something of God's power at its source; for we know Christ, the Son of the Father who sustains the physical world and makes it serve his purposes, the Son whose life was strong enough to overcome human death, from whom we receive the Holy Spirit with his transforming power. Power in God is the exercise of his authority, which is sovereign over all creatures. By his power he can create and sustain, he can save and could damn. In every use of his power God remains true to himself and to what he has revealed that he is. To separate his power from his wisdom, his love and his serenity would be to undo the meaning of the name God. His power is neither magical nor capricious. It expresses God's freedom to make his wisdom and love effective. Within the limits of his own consistency the freedom is absolute, for there is no power outside himself by which God could be coerced. From lives already being transformed by the power of God in Christ we affirm that the Lord whom we worship is God, almighty in his wisdom and love and serenity."

However, if Christian doctrine were to be the criterion, perhaps only Coleridge could have survived scrutiny, of all those whose work has been looked at during the course of this study.

Chambers to Mill

- 1 R. Chambers, Vestiges of the Natural History of Creation, 6th ed., London: J. Churchill, 1847. Cited as Chambers, Vestiges.
- 2 Milton Millhauser Just before Darwin: Robert Chambers and Vestiges, Connecticut: Wesleyan U.P., 1959. Cited as Millhauser, Vestiges. Loren Eiseley, Darwin's Century, London: Gollancz, 1959, p.136. Cited as Eiseley, Century.
- 3 The friend was A. Ireland, who wrote the introduction to the twelfth edition of the Vestiges, London: W. and R. Chambers 1884, and Ireland also revealed Chambers' identity.
- 4 Millhauser, Vestiges, p.120.
- 5 S.R. Bosanquet, Vestiges of the Natural History of Creation: its Argument examined and exposed, 2nd ed., London: Hatchard, 1845, p.3.
- 6 Ibid., p.45.
- 7 Chambers, Vestiges, p.9-10.
- 8 Ibid., p.10.
- 9 Ibid., p.92.
- 10 Ibid., p.91.
- 11 Ibid., p.93.
- 12 Ibid., p.117.
- 13 Ibid., p.143.
- 14 Ibid., p.147.
- 15 Ibid., p.152.
- 16 Ibid., p.144-5.
- 17 Ibid., p.234.
- 18 Ibid., p.244.
- 19 Ibid., p.249-50.
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- 34 Ibid., p.32.
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- 42 Ibid., p.85.
- 43 J.W. Clark and T.M. Hughes, The Life and Letters of the Reverend Adam Sedgwick, Cambridge: U.P., 1890, I, 154f. Cited as Clark/Hughes, Sedgwick.
- 44 Ibid., p.284.
- 45 Ibid., p.285.
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- 47 Ibid., II, 490.

- 48 Ibid., p.79.
- 49 Ibid., p.83-4.
- 50 Ibid., p.86.
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- 52 Ibid., p.clvi.
- 53 Ibid., p.299.
- 54 Ibid., p.ccxvix; cf. p.272.
- 55 Ibid., p.ccxliii.
- 56 Ibid., p.cccxxvii. Chambers' reply to this point as to others, appeared in his Explanations, London: J. Churchill, 1845, p.63: "Power to make and to uphold remains his as before, but is invested with a character of tranquillity altogether new - the highest attribute we can conceive in connexion with power." But as Millhauser, Vestiges, p.133 remarked of the reviews, "It is to this empty God that they object: indifferent, passive, impotent of miracle and deaf to prayer; pallid, functionless."
- 57 Clark/Hughes, Sedgwick, II, 86.
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- 59 Stafleu, "Lamarck", p.411; Stafleu, Linnaeus, p.306 f.
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- 62 Scriptural Evidences, p.289. Cf. Anon, An Expository Outline of the Vestiges of the Natural History of Creation, with a Comprehensive and Critical Analysis of the Arguments by which the Extraordinary Hypotheses of the Author are supported and have been impugned, with their bearing upon the Religious and Moral Interests of the Community. With a Notice of the Author's Explanations, a Sequel to the Vestiges. Originally printed as a supplement of The Atlas Newspaper of August 30 and Dec. 20 1845, London: 1846, p.55, - Man is sui generis and "his alleged recent metamorphosis from a monkey, and his first and far more distant one from a snail or a tadpole, are paradoxes only worthy of a debating club." Cf. B. Disraeli, Tancred, London: Longmans etc., 1860.
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hard-pressed headmaster. According to this interpretation, supervision - though immediate - never quite brought order out of chaos; and even when temporary order (the present course of nature) seemed to be achieved, it was never an order sufficient unto itself."

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- 72 Spencer, "Development", p.380.
- 73 Ibid., p.378.
- 74 Ibid., p.383.
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- 78 Powell, Essays, p.6.
- 79 Ibid., p.58.
80. Ibid., p.67-8.

- 81 Ibid., p.69.
- 82 Ibid., p.70.
- 83 Ibid., p.74.
- 84 Ibid., p.75. Cf. p.247: "The relation of the animal man to the intellectual, moral, and spiritual man, resembles that of a crystal slumbering in its native quarry, to the same crystal mounted in the polarising apparatus of the philosopher."
- 85 Ibid., p.77.
- 86 Ibid., p.86.
- 87 Ibid., p.117.
- 88 Ibid., p.131.
- 89 Ibid., p.132.
- 90 J.H. Newman, University Sermons, London: S.P.C.K., 1970, p.70, of 1831 on "some unsoundness in the intellectual basis of the argument" from design; and p.194-5 of 1839, on "the practical safeguard against Atheism in the case of scientific enquirers" being "the inward need and desire, the inward experience of that Power, existing in the mind before and independently of their examination of His material world". Cf. O. Chadwick, From Bossuet to Newman, Cambridge: U.P. 1957, p.176-7; J.M. Cameron, The Night Battle, London: Burns & Oates, 1962, p.206-7, p.217, p.233f. On "atheism" and "scientific enquiry", cf. J.F.W. Herschel, A Preliminary Discourse on the Study of Natural Philosophy, London: Longmans, 1830, p.7f. Cited as Herschel, Discourse.
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- 97 Ibid., p.374.
- 98 Ibid., p.375-7.
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- 103 Ibid., p.455.
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- 106 L.G. Wilson, Charles Lyell: the Years to 1841: the Revolution in Geology, New Haven: Yale U.P., 1972, p.34. Cited as Wilson, Lyell.
- 107 Ibid., p.42f, especially on Buckland's use of Smith's material.
- 108 Ibid., p.65. Cf. the whole chapter for an account of "The state of Geology in 1819".
- 109 Ibid., p.158.
- 110 Ibid., p.277.
- 111 Ibid., p.281.
- 112 Ibid., p.289, and cf. note 225 of the section on Coleridge.
- 113 Ibid., p.350.
- 114 Ibid., p.339.
- 115 Ibid., p.355.
- 116 Ibid., p.354.
- 117 Ibid., p.440.
- 118 L.G. Wilson, ed., Sir Charles Lyell's Scientific Journals on the Species Question, New Haven: Yale U.P., 1970. Cited as Wilson, Journals.
- 119 Ibid., p.xli.
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- 122 Ibid., p.55.

- 123 Ibid., p.56.
- 124 Ibid., p.84.
- 125 Ibid., p.87.
- 126 Ibid., p.88.
- 127 M. Foster and R. Lankester, eds., The Scientific Memoirs of T.H. Huxley, London: Macmillan, 1898, IV, 658-689, "Owen's Position in the History of Anatomical Science". P.680-1, Huxley quoted a statement of Owen's of 1849: "Now, however, the recognition of an ideal Exemplar for the Vertebrated animals proves that the knowledge of such a being as Man must have existed before man appeared. For the Divine mind which planned the Archetype also foreknew all its modifications. The Archetypal idea was manifested in the flesh, under divers such modifications, upon this planet, long prior to the existence of those animal species that exemplify it. To what natural laws or secondary causes the orderly succession and progression of such organic phenomena may have been committed we are yet ignorant. But if, without derogation of the Divine power, we may conceive the existence of such ministers, and personify them by the term 'Nature', we learn from the past history of our globe that she has advanced with slow and stately steps, guided by the archetypal light, amidst the wreck of worlds, from the first embodiment of the Vertebrate idea under its old Ichthyic vestment, until it became arrayed in the glorious garb of the Human Form." Cited as Huxley, Scientific Memoirs.
- 128 Wilson, Journals, p.118.
- 129 Ibid., p.122.
- 130 Ibid., p.132.
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- 132 H. Martineau and H.G. Atkinson, Letters on the Nature and Development of Man, of 1851, discussed in H. Martineau, Autobiography, London : Smith, Elder, 1877, II, 328f.
- 133 Wilson, Journals, p.168.
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- 138 Ibid., p.284-5.
- 139 W.B. Turrill, Joseph Dalton Hooker, London: Nelson, 1963, p.96.

- 140 L. Huxley, ed., The Life and Letters of Sir Joseph Dalton Hooker, London: J. Murray, 1918, I, 353 on his Flora Tasmaniae of 1860, written up between the 1858 reading of the Darwin/Wallace papers and the publication of the Origin. Cited as Huxley, Hooker.
- 141 Ibid., I, 477.
- 142 Ibid., II, 118.
- 143 Powell, Essays, p.155. From an 1854 sermon of Kingsley's: "God punishes us ... not by His caprice, but by his Laws. He does not break His laws to harm us; the laws themselves harm us when we break them and get in their way." This sermon was addressed to the question, "Who causes Pestilence?"
- 144 Ed. by his wife, Charles Kingsley: His Letters and Memories of his Life London: Macmillan, 1895, p.32-3. Cited as Kingsley, Life.
- 145 Ibid., p.181. Cf. M.W. Hanawalt, "Charles Kingsley and Science", Studies in Philology, (1937), 589-611.
- 146 Kingsley, Life, p.309-10.
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- 148 Hallam Tennyson, Alfred Lord Tennyson: A Memoir, London: Macmillan, 1899, p.250. Cited as Tennyson, Memoir. Cf. A.O.J. Cockshut, ed., Religious Controversies of the Nineteenth Century, London: Methuen, 1966, p.11.
- 149 Tennyson, Memoir, p.37.
- 150 A.N. Whitehead, Science and the Modern World, New York: Mentor, 1958, p.78; cf. W.R. Rutland, "Tennyson and the Theory of Evolution", Essays and Studies by Members of the English Association, XXVI, (1940), 7-30.
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- 153 Wilson, Journals, p.121, Lyell writing in 1856, "there is only one great resource to fall back upon, a reliance that all is for the best, trust in God, ..." The examination of the book of nature "will not shake what has been common to the greater number of faiths in all ages & among all races; a belief in the Unity of the system, the intelligence, order & benevolence of the Deity."

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- 155 Ibid., p.263.
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- 282 Huxley, Lectures and Essays, p.244. Cf. H.N. Fairchild, Religious Trends in English Poetry, IV: 1830-1880, Christianity and Romanticism in the Victorian Era, New York: Columbia U.P., 1957, p.102f. And for a different result, perhaps illustrating Huxley's sceptic, cf. B. Russell, "A Free Man's Worship", pp.46-57 of Mysticism and Logic, London: Allen & Unwin, 1932.
- 283 Huxley, Life and Letters, I, 271-2.
- 284 Ibid., p.266-7, note 2. Cf. B. Willey, Nineteenth Century Studies: A Group of Honest Doubters, London: Chatto & Windus, 1963, quoting F. Newman's book of 1849 on The Soul, - "wherever there is true Faith, there is an unhesitating conviction that there cannot possibly be any real collision between these two parts of human nature. It is no common guilt, when a man uses his spiritual influence to frown down any honest intellectual endeavour." Willey commented, p.38, that he did not know whether Huxley had read Newman but he made the same point in 1860 when rebutting Wilberforce's attacks on Darwin. Cf. also T.H. Huxley, Science and Culture and other Essays, London: Macmillan, 1881, p.244-5: "it really would be well if ecclesiastical persons would reflect that ordination, whatever deepseated graces it may confer, has never been observed to be followed by any visible increase in the learning or logic of its subject." No-one may employ a "lazy reliance upon the information that is gathered by prejudice and filtered through passion, unless he go back to the prime source of knowledge - the facts of nature, and the thoughts of those wise men who for generations past have been her best interpreters."
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- 290 Ibid., p.126.
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- 292 Ibid., p.138.
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- 303 Ibid., p.292.
- 304 Huxley, Life and Letters, I, 316.
- 305 Ibid., p.317. Cf. p.347: "I cannot see one shadow or tittle of evidence that the great unknown underlying the phenomena of the universe stands to us in the relation of a Father - loves us and cares for us as Christianity asserts. On the contrary, the whole teaching of experience seems to me to show that while the governance (if I may use the term) of the universe is rigorously just and substantially kind and beneficent, there is no more relation of affection between governor and governed than between me and the twelve judges. I know the administrators of the law desire to do their best for everybody, and that they would rather not hurt me than otherwise, but I also know that under certain circumstances they will most assuredly hang me; and that in any case it would be absurd to suppose them guided by any particular affection for me. This seems to me to be the relation which exists between the cause of the phenomena of the universe and myself. I submit to it with implicit obedience and perfect cheerfulness, and the more because my small intelligence does not see how any other arrangement could possibly be got to work as the world is constituted."
- 306 Huxley, Life and Letters, I, p.350. Cf. J.H. Gardner, "A Huxley essay as a 'Poem'", Victorian Studies, XIV, (1970-71), 177-193, esp. p.179-80.
- 307 Huxley, Life and Letters, II, 216.
- 308 Ibid., p.215.
- 309 Ibid., p.283.
- 310 Ibid., p.483.
- 311 Ibid., III, 302-3. Cf. G. Himmelfarb, Darwin and the Darwinian Revolution, London: Chatto & Windus, 1959, p.332f.
- 312 T.H. Huxley, Collected Essays, IX: Evolution and Ethics, London: Macmillan, 1925; p.8-9 of the "Prolegomena" of 1894.

- 313 Ibid., p.33.
- 314 Ibid., p.71f from his Romanes Lecture of 1893. For an attack on Huxley for his views in this essay, cf. H.J. Massingham and H. Massingham, eds., The Great Victorians, I, Harmondsworth: Penguin, 1932, p.248f. Other comments may be found in S.A. Barnett, ed., A Century of Darwin, London: Mercury, 1962, D. Daiches Raphael, p.343f; and W. Irvine, Apes, Angels and Victorians, London: Weidenfeld & Nicolson, 1955, p.346f.
- 315 Huxley, Collected Essays, IX, p.146, from "Science and Morals" of 1886.
- 316 P. Appleman, ed., 1859: Entering on an Age of Crisis, Bloomington: Indiana, U.P., 1959, Noel Annan on "Science, Religion and the Critical Mind", p.36-7. Cf. A. Ryan, J.S. Mill, London: Routledge & Kegan Paul, 1974, p.133f. Cited as Ryan, Mill. Also, R. Carr, "The Religious Thought of John Stuart Mill: A Study in Reluctant Scepticism", Journal of the History of Ideas, XXIII, (1962), 475-495, esp. the first part of the article.
- 317 W.E.H. Lecky, Democracy and Liberty, London: Longmans, 1896, I, 510-11.
- 318 Mill, Hamilton's Philosophy, p.128-9.
- 319 Ibid., p.130.
- 320 J.S. Mill, The Nature and Utility of Religion and Theism, London: Longmans, 1969, a reprint of the 1874 edition. Cited as Mill, Religion.
- 321 Ibid., p.viii-ix.
- 322 Nagel/Mill, Logic, p.xxvii.
- 323 J.S. Mill, A System of Logic, 8th ed., London: Longmans, 1884, p.545f. Cited as Mill, System.
- 324 M. St. J. Packe, The Life of John Stuart Mill, London: Secker & Warburg, 1954, p.269-70.
- 325 Mill, System, p.76f.
- 326 Ibid., p.83.
- 327 Ibid., p.84. Cf. J.B. Schneewind, ed., Mill, London: Macmillan, 1969, Bertrand Russell, "John Stuart Mill", p.5. Cited as Schneewind, Mill.
- 328 Mill, System, p.322 for example.
- 329 Ibid., p.328. Cf. in Giere/Westfall, Foundations, David L. Hull, "Charles Darwin and Nineteenth-Century Philosophies of Science",

pp.115-132. For other references exhibiting Mill's interest in Darwin's work, cf. J.M. Robson, The Improvement of Mankind, London: Routledge & Kegan Paul, 1968, "Appendix: Darwin and Marx", p.274-5. Also, J.S. Mill, Collected Works XV: The Later Letters of John Stuart Mill, 1849-1873, ed. F.E. Mineka and D.N. Lindley, London: Routledge & Kegan Paul, 1972, p.695-6, commending both Darwin, and Powell. Of the latter's work, he remarked "It is curious to see natural theology reverting to the form in which it was conceived by Aristotle - that it is not what cannot be predicted, but what can, that proves an intelligent agency."

- 330 Darwin, More Letters, I, 189.
- 331 J.S. Mill, Utilitarianism, reprinted with A Study of the English Utilitarians, by J. Plamanetz, Oxford: Blackwell, 1949.
- 332 Ibid., p.177-8. Cf. J.S. Mill, Essays on Economics and Society, London: Routledge & Kegan Paul, 1967, p.713.
- 333 Wallace, Life, II, 237.
- 334 Ibid., p.236.
- 335 Packe, Mill, p.443.
- 336 A. Whitehouse, "Fundamental Considerations for a reconstructed 'Theology of Nature'", a Paper presented at a Conference for Scientists, Theologians and Philosophers, 16th-20th April, 1963, at the Ecumenical Institute, Bossey, nr. Celigny, Switzerland. Cf. C.S. Lewis, Studies in Words, Cambridge: U.P., 1961, p.41.
- 337 Mill, Religion, p.13. Cf. Ryan, Mill, p.241f.
- 338 Ibid., p.20-21.
- 339 Ibid., p.25.
- 340 Ibid., p.27.
- 341 Ibid., p.31.
- 342 Ibid., p.36. Cf. D.M. MacKinnon, "The Victorian Attitude to Evil and Personal Responsibility", pp.139-149 of Ideas and Beliefs of the Victorians, London: Sylvan Press, 1949, esp. p.147.
- 343 Mill, Religion, p.37.
- 344 Ibid., p.38-9. Cf. D. Krook, Three Traditions of Moral Thought, Cambridge: U.P., 1959, p.195f.

- 345 Mill, Religion, p.39.
- 346 Ibid., p.40, note. Cf. p.136 on Leibniz' criticism of the world as a clock to which God has to keep putting his hand. Also, for other references to Leibniz, cf. Hamilton's Philosophy, p.644-648; and Mill's comments in Auguste Comte and Positivism, p.368 of J.S. Mill, Collected Works: Essays on Ethics, Religion and Society, ed. J.M. Robson, London: Routledge & Kegan Paul, 1969.
- 347 Mill, Religion, p.58.
- 348 J.S. Mill, On Bentham and Coleridge, introd. F.R. Leavis, London: Chatto & Windus, 1950, esp. p.161 f. Mill's interest in Coleridge was also a comparatively rare phenomenon. One of the few other traces of interest in him as poet and philosopher, is to be found in the work of Julius Hare, Guesses at Truth, first series, 4th ed., London: Walton & Maberly, 1851; the second series, 3rd ed., of 1855 contained p.11 f an essay on the perfectibility of man. In his advertisement to the second edition, of which the third was virtually a re-print, dated 1838, Hare said he had taken no notice of "the views concerning Development in reference to religious truth, which have recently been exciting much agitation and confusion." One notes some references, p.60f to Kant's essays of 1784 and 1898. Cf. W. Cannon, "Scientists and Broad Churchmen: an Early Victorian Network", Journal of British Studies, IV, (1963-4), 65-88, p.76f.
- 349 Mill, Religion, 112-3, and cf. p.255f.
- 350 Ibid., p.116.
- 351 Ibid., p.117.
- 352 Ibid., p.118.
- 353 Ibid., p.126-7; p.139.
- 354 Ibid., p.134-5. Cf. Karl Britton, John Stuart Mill, Harmondsworth: Penguin, 1953, p.207: "In discussing the hypothesis of God's existence, Mill is at the greatest pains to set aside all purely religious considerations. By this I mean considerations that arise from the desire to worship God, to serve God, or to obtain the consolations of religion."
- 355 Mill, Religion, p.163-4.
- 356 Ibid., p.165-6.
- 357 Ibid., p.170.
- 358 Ibid., p.172.
- 359 Ibid., p.174.
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- 361 Ibid., p.208. Cf. Collins, God, p.292f. Collins remarked, p.293: "The finitist position derives much of its appeal from this way of saving God's goodness at the expense of His power. It must be noted, however, that Mill conceives of the divine power in a very special way in reference to the problem of evil. His treatment of divine power presupposes three points: that God is not strictly a creator or total first cause but a maker; that divine power can be isolated adequately from the other divine attributes; that there is no personal freedom and immortality for man. Each of these presuppositions determines the way in which the question of divine power and evil is resolved."
- 362 Mill, Religion, p.253.
- 363 Ibid., p.256. Cf. Maurice Cowling, "Mill and Liberalism", p.350 f, for a critique of what Cowling calls, p.352, Mill's "unctuous religion", in Schneewind, Mill.
- 364 A. Bain, John Stuart Mill, New York: Kelley, 1969, p.135, (a work of 1882).
- 365 M.B. Foster, "Christian Theology and Modern Science of Nature", Mind, XLIV, (1935), 439-466, p.440.
- 366 H. Dingle, "The Scientific Outlook in 1851 and in 1951", The British Journal for the Philosophy of Science, II, (1951-2), 85-104, p.101.
- 367 G. de Beer, Reflections of a Darwinian, London: Nelson, 1962, p.1-30, for example.
- 368 The Congregational Church in England and Wales, A Declaration of Faith, Hull: Independent Press, 1967, p.29.

B. Conclusion.

The search for a theodicy is a search for intelligibility. On the one hand, there is the problem of the intelligibility of the natural order, and on the other, the problem of the intelligibility of God. Leibniz hoped to see the world as God saw it, attempting to correlate the divine object of his contemplation with the order of nature as he understood it. He displayed an unmatched confidence in human reason in its consideration of the divine being, and maintained a view of creatures in their relation to God which made it impossible for man to be pessimistic. The analogy of God as "architect" which Leibniz employed, indicating a "finished" creation, was to be developed in theological thinking to promote a picture of creatures disposed in their "spatial" relationships to one another, as a permanent and stable expression of the divine creator's activity. Associated with this spatial disposition were the notions of hierarchy and continuity. Attention to details provided further "evidence" of the creator's skill and care, evoking a gratitude which prompted morality. An appreciation of the "whole" as the sum of inexhaustible variety was found to be a further source of rational satisfaction, and helped to maintain confidence in God when attention to detail seemed to threaten that confidence.

However, there were those who insisted on the necessarily problematic character of man's knowledge of creatures in their relation to God. And insistence on human misery, if a prior guarantee of God's goodness

could not be allowed to weigh in the discussion, seemed to require a suspension of judgment on theological issues. Suspension of judgment appeared to be a more reasonable stance, if the alternative were an unthinking faith. The problem of language became increasingly important. Different interests were at stake, each requiring the service of appropriate expression. An "operational" language which would allow experimental scientific enquiry to proceed was to be distinguished from an analogical language suitable for theology.

Kant, with an incurable concern for theology, appreciated the seriousness of the problem. A transcendent deity, beyond the reach of human contemplation, required an understanding of the world characterised by stability manifested in "law". Sense could be made of an ultimately inscrutable natural order given man's ability to structure his apprehension of it. God was not to be invoked as "explanation", and trust in him was expressed not by means of intellectual speculation, but as a result of reflection on man's moral and political life.

A willingness in the nineteenth century to take extended temporal sequence seriously provoked a re-thinking of the notion of the "forms" of species. Scientists still deeply affected by their theological convictions found it difficult to think about the relationship of creatures to one another without a theistic reference. Reference to God both helped and hindered various kinds of scientific endeavour. Concepts with a long and distinguished history, such as the continuity

of beings, guaranteed by the arrangement of archetypes in the mind of the creator, were to be weighed anew for their serviceability. Scientists and theologians came to see that they were not looking at the natural order as had their predecessors. The environment changed, and creatures, inter-dependent with it, changed habitat and form. A theodicy dependent upon a commitment to a view of nature which could no longer be sustained, would require re-writing.

It became clear that the relationship between "science" and "theology" was more complex than had been supposed. Theology could not be derived from a description of nature which would suit an experimental scientist. Theologians might well take notice of what scientists were saying without expecting them to provide substance for theological conviction. However, theologians ought to be sensitive to the scientist's understanding of man's inter-relationship with all other creatures in the biological "skin" of the world, especially if they wanted to make an appeal to Christology in the course of re-thinking theodicy.

The rarity of twentieth-century theodicies is a measure of the difficulties which seem to be involved, as though it is not clear where one ought to find the ground on which to stand in order to make a beginning. It may be no accident that one of the most distinguished recent attempts at theodicy, that of Austin Farrer, was produced by him in relation to his edition of Leibniz' Theodicy. Attention to the great philosophical theologians, to what they had to say about creation, grace, and providence, might provide hints of how to proceed.

Gifford lectures, the epistemology of Lonergan, and the work of systematic theologians, might also be important. It is not that God needs a defence, but that we need a theology of creation of which a theodicy should be a feature. The construction of a theodicy may be no more difficult than that of constructing intelligible expressions of areas of Christian doctrine, and may be as indispensable.

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