

Paley's Argument For Design

The main aim of this paper is to examine an almost universal assumption concerning the structure of Paley's argument for design. Almost all commentators suppose that Paley's argument is an inductive argument—either an argument by analogy or an argument by inference to the best explanation. I contend, on the contrary, that Paley's argument is actually a straightforwardly deductive argument. Moreover, I argue that, when Paley's argument is properly understood, it can readily be seen that it is no good. Finally—although I do not stress this very much—I note that the points that I make about Paley's argument can carry over to modern design arguments that are based upon the argument which Paley actually gives.

Discussions of Paley's argument typically begin by insisting either that Paley's argument is an argument by analogy, or that Paley's argument is best understood as an argument by inference to the best explanation, or perhaps both of these things at once.¹ However, it seems to me that, if we look carefully at the considerations that Paley actually presents, then we shall see that his argument is not best characterised in either of these ways. Perhaps it might nonetheless be the case that the best way to understand the overall project of Paley's Natural Theology² is to suppose that he is advocating an argument by inference to the best explanation—or some other related inductive technique—to the conclusion that God exists; but we shall be in a better position to evaluate this suggestion once we are clearer about the form of the argument which Paley actually uses.

Paley's initial discussion—in which he sets out and defends his argument—may be thought of as having four parts. In the first part, Paley makes some remarks about the inevitability of inference to design in certain cases. In the second part, Paley notes that the inevitability of this inference is quite robust, and survives various kinds of philosophical objections. In the third part, Paley argues that it would make no difference to the inevitability of the inference to design in the cases in question if there were also something analogous to biological reproduction present in these cases. In the fourth and final part, Paley claims that inference to design in the case of the works of nature is no less justified than the 'inevitable inferences' described in the first part of the argument. I shall consider these various parts of Paley's discussion in turn.

1

Famously, Paley begins by arguing that, if we were to find a watch, we would inevitably suppose that the watch had a designer and maker:

In crossing a heath, suppose I pitched my foot against a stone, and were asked how the stone came to be there, I might possibly answer, that, for any thing I knew to the contrary, it had lain there for ever: nor would it perhaps be very easy to shew the absurdity of this answer. But suppose I had found a watch upon the ground, and it should be enquired how the watch happened to be in that place, I should hardly think of the answer which I had before given, that, for any thing I knew, the watch

might have always been there. Yet why should not this answer serve for the watch as well as for the stone? Why is it not as admissible in the second case, as in the first? For this reason, and for no other, viz. that, when we come to inspect the watch, we perceive (what we could not discover in the stone) that its several parts are framed and put together for a purpose ... This mechanism being observed (it requires indeed an examination of the instrument, and perhaps some previous knowledge of the subject, to perceive and understand it; but, being once, as we have said, observed and understood), the inference, we think, is inevitable, that the watch must have had a maker: that there must have existed, at some time and at some place or other, an artificer or artificers who formed it for the purpose which we find it actually to answer; who comprehended its construction, and designed its use. (9-11)

Although it can't be said that Paley's discussion is entirely clear, it seems reasonable to suggest that he supposes that it is the observations: (i) that the watch has a principal function; (ii) that various of the parts of the watch have functions; and (iii) that the materials from which the parts are constructed are well-suited to the functions which those parts have, which leads us to make the inference that the watch has a designer. (For future reference, I shall introduce the label "Paley's Hypothesis" to refer to this claim: *that it is the observations: (i) that the watch has a principal function; (ii) that various of the parts of the watch have functions; and (iii) that the materials from which the parts are constructed are well-suited to the functions which those parts have, which leads us to make the inference that the watch has a designer.*)

Some of Paley's language may suggest that he thinks that when we look at the watch we (can) just see that it is a designed product—"we perceive that its several parts are framed and put together for a purpose"—but there are at least two reasons why this can't be what he intends: (i) if this were right, there would be no need to speak about 'inference'; and (ii) the discussion would not carry over to the works of nature, since it simply isn't true that we (can) just see that animals and plants are designed products. (At any rate, those of us who are not already persuaded of the truth of the conclusion of the argument for design—and more, besides—do not see any such thing. And that's enough to undermine any argument based on this alternative way of understanding Paley's initial discussion.)

However, if this is right, then there is clearly room for questioning whether Paley has correctly identified the source of our confidence in the 'inference' that a given watch is the product of design. There are at least two difficulties here. On the one hand, it seems highly doubtful that it is considerations about 'function' which play the main role: there are other more immediate things which we see when we inspect the watch which will make the 'inference' to design inevitable. And, on the other hand, it seems highly doubtful that considerations about 'function' could be sufficient to underwrite the 'inference' to design. Let's take these points in turn.

Paley notes, parenthetically, that there may be some role for background knowledge in the discernment of the function of the watch and its parts, and of the suitability of the materials from which the parts are constructed for the functions that they serve. But it is clear that there are other roles which background knowledge could play in the inference to 'design'. For example, we all know that brass does not occur in nature;

likewise, we all know that smooth, clear glass is made in factories. Again, we all know that cogwheels do not grow on trees. And so on. Surely it is this kind of knowledge which makes it inevitable that we shall ‘infer’ that the watch is the product of intelligent design.³ (Suppose that the CPU from my desktop computer had fallen through a spacetime wormhole, and that Paley had stubbed his toe on it while walking on his favourite heath. I have no doubt that he would have had no trouble identifying the CPU as a product of intelligent design, even though he would not have recognised the materials from which it is made, and even though he would not have been able to guess at the function which it—and almost all of its parts—serve. A similar point could be made for Geiger counters, and countless other manufactured objects.)

Suppose, instead, that Paley had come upon a rabbit’s heart lying on the common. Given a little background knowledge, he would have recognised that this is something with a proper function, with parts which have proper functions, and with parts whose material constitution is well-suited to the functions which those parts play. (Think, for example, of the natural functions of cell membranes, cell nuclei, etc.) Nonetheless, I don’t think that there is the slightest reason to suppose that there is anything at all inevitable about the ‘inference’ from the observed properties of the rabbit’s heart to the conclusion that it is the product of intelligent design. (Again, perhaps some people might find this inference ‘inevitable’; but it is surely plausible to think that this reaction will not be found in anyone other than those who are already thoroughly convinced that the natural world is the product of intelligent design.)

If the above is correct, then it seems clear that the claim which Paley actually makes in the first part of his initial discussion leaves his overall argument dead in the water.

The compelling reasons that we have for supposing that the watch is the product of intelligent design simply do not carry over to reasons for supposing that the natural world is the product of intelligent design. The background knowledge that we have about the production of manufactured materials and components is not paralleled by any comparable knowledge about the production of biological materials and components. And the suggestion that considerations concerning ‘function’ and ‘suitability of materials to function’ are sufficient to underwrite the ‘inference’ is clearly question-begging. What the argument purports to *establish* is that these kinds of considerations alone suffice to underwrite an inference to intelligent design; hence, it cannot rest on the *presupposition* that these kinds of considerations do, in fact, suffice to underwrite that inference.

Even though it will plainly follow that the overall argument that Paley gives is no good, I don’t think that this is a reason for rejecting my interpretation of the key claim in the first part of his initial presentation of the argument. Perhaps we can construct a better argument for biological design in terms of inference to the best explanation. But I do not think that any such argument can be read naturally into the text that Paley actually produced. Moreover, it is not particularly relevant that Paley might have happily adopted one of these modern versions of the argument; that can be true even if the argument that Paley actually gives fails in ways in which those modern arguments do not.⁴

Paley argues that the inference to the conclusion, that the watch must have had a maker, is very robust. On the one hand, our confidence in the inevitability of the conclusion is not shaken even if we are quite ignorant about relevant matters concerning watches and their production. And, on the other hand, other hypotheses that one might offer in competition with the claim about design seem implausible or even downright silly. Let's take these points in turn.

In Paley's view, it would make no difference to the inevitability of the inference if: (i) we had never seen watches made; (ii) we had never known anyone capable of making a watch; and (iii) we were utterly incapable of making watches ourselves, or of understanding how they are made. Furthermore, it would make no difference to the inevitability of the inference if the watch did not work properly ('if it sometimes went wrong, or seldom went exactly right'). Finally, it would also make no difference to the inevitability of the inference if there were parts of the watch whose function we could not determine (or even parts for which we can't determine whether or not they have any function). Of course, the points that Paley makes here are perfectly correct, as far as they go—but I do not think that they go far enough. Clearly, Paley must be supposing that our confidence in the inference relies upon our ability to recognise the functions of the watch and its parts. Otherwise, he would also make the perfectly correct points that (i) it would make no difference to the inevitability of our inference that the watch did not work at all; and (ii) it would make no difference to the inevitability of our inference that we could determine none of the functions of the

watch and its parts. (Recall the earlier point about Paley's undoubted ability to recognise that CPUs and Geiger counters are products of intelligent design.) Whatever the standing of this objection, the important point to recognise is that my interpretation of the first part of Paley's initial presentation—and, in particular, my attribution of what I have called "Paley's Hypothesis" to Paley—makes good sense of the claims that he makes, and of the claims that he fails to make, at this point.

In Paley's view, it would be absurd to suggest that (i) the parts of the watch might have been framed and organised by chance; or (ii) that there is a natural tendency for materials to assemble themselves into watches; or (iii) that there are natural laws which ensure that there will be watches; or (iv) that we should be agnostic about the design of watches if we don't know much about them. Once more, it seems that the points that Paley makes here are perfectly correct, as far as they go. However, it is worth noting that these arguments don't lend much support to the claim that our confidence in the inference to design relies upon our ability to recognise the functions of the watch and its parts—for these arguments only consider some quite implausible alternative hypotheses about the origins of the watch. Perhaps it might be said that these arguments lend some support to the view that Paley's argument is really works by inference to the best explanation (and that what he takes himself to be doing here is to be dismissing the main competing hypotheses to his own). But it seems to me to be much more plausible to suppose that Paley is still asking about *the grounds of our confidence* in the inference to design in the case of the watch—and that he is failing to locate the correct source of that confidence.

3

Paley argues that the inference to the conclusion, that the watch must have had a maker, will also survive the hypothesis that watches produce baby watches—i.e. the hypothesis that watches duplicate themselves and that all current watches have arisen from this process of duplication. The core of the third part of his initial discussion is, I think, this:

Arrangement, disposition of parts, subserviency of means to an end, relation of instruments to an use, imply the presence of intelligence and mind. No one, therefore, can rationally believe, that the insensible, inanimate watch, from which the watch before us issued, was the proper cause of the mechanism we so much admire in it; could be truly said to have constructed the instrument, disposed its parts, assigned their office, determined their order, action, and mutual dependency, combined their several motions into one result, and that also a result connected with the utilities of other beings. All these properties, therefore, are as much unaccounted for, as they were before. (20/1)

There are two points to note here. First, Paley more or less explicitly says that function is an infallible sign of intelligent design. Second, he argues that duplication that preserves function does not remove the need for intelligent design. Of course, there is a sense in which the parent watch “constructs the child watch, disposes its parts, assigns their office, etc.” However, as Paley in effect claims, if you grant that function is an infallible sign of intelligent design, then the appearance of function in the child watch is not fully explained in the account of the production of that watch by

its parent: there is still no explanation of the appearance of function in watches on this account.

Moreover, Paley insists, it is of no avail to run the story further back: no number of previous generations can remove the need to appeal to a designer in order to explain the presence of function in *any* of those generations. If you allow that there is an infinite sequence of previous generations, and no first generation, you might think that you have thereby avoided the need to postulate a designer: the presence of the appearance of design in any given generation is explained by the process of duplication and the appearance of design in the previous generation. But Paley insists that this is not so: function and suitability of constitution to function require design even in this case. Of course, this point could be contested: if this is really a possible case, then it might be thought to constitute a counter-example to Paley's Hypothesis, i.e. to the principle upon which Paley's initial discussion relies. However, the important point for our purposes is that there seems to be more evidence here for the interpretation of Paley's discussion which I have proposed: Paley's refusal to take this point makes sense if we suppose that he thinks that it is already established that where there is function and suitability of constitution to function, there is design.

(A question worth asking in connection with this part of Paley's discussion is whether it is really conceivable that watches are the offspring of prior watches. Paley claims that it is clear that our confidence in the 'inevitability' of the inference to design is not diminished when we find that watches reproduce. However, if it turns out that what Paley is asking us to suppose is that watches are animals—and perhaps this will turn out to be 'conceivable' in the relevant sense—then it is not clear that we should

remain so confident about the ‘inevitability’ of the inference in question. I think that what Paley should say is that he is supposing that watches are ‘self-replicating machines’—and, of course, since they are ‘machines’, it will still be the case that these are entities which are the products of intelligent design. (If we manage to colonise the galaxies with self-replicating machines, it will always remain true that those machines—and their descendants, if it turns out that those machines are capable of evolution—are the products of intelligent design.) But if Paley does say this, then it seems pretty clear that it is the insistence that watches are machines—and not the facts about function and suitability of constitution to function—which is now doing all of the work in the inference to design.)

4

In the previous sections of this paper, I have made various suggestions about the correct interpretation of Paley’s initial discussion. Collecting together these suggestions, it seems to me that the basic form of Paley’s argument is as follows:

1. There are cases in which the presence of function and suitability of constitution to function makes it inevitable that we infer to intelligent design. (Premise)
2. (Hence) In general, the presence of function and suitability of constitution to function guarantees a role for intelligent design. (From 1)

3. There is function and suitability of constitution to function in the natural world.

(Premise)

4. (Hence) The natural world is the product of intelligent design. (From 2, 3)

This argument is plainly an *a posteriori* argument—since the first premise and the second premise make empirical claims—but it is nonetheless a straightforwardly deductive argument. There is some murkiness involved in the inference to 2., but I do not think that this is a reason for refusing to attribute this argument to Paley.⁵ Of course, this argument is not stated explicitly and in so many words, but, again, I don't think that this is a compelling reason for refusing to attribute it to Paley. Note, in particular, that Paley no more explicitly states an argument by analogy or an argument by inference to the best explanation: these interpretations have the same *kind* of status as the proposal which I have just made.

What should we say about this argument? Perhaps we might try contesting the move at 2. on the grounds that, even if we find an inference inevitable in certain circumstances, that does not show that the inference is any good, or that it is bound to be correct. However, it seems to me that this is not a particularly powerful objection. Part of what Paley means by saying that the inference is 'inevitable' is just that it is obviously correct: when we see the watch, we ought to infer that it is the product of intelligent design; and, moreover, we are quite entitled to insist that it is necessarily the case that watches are the product of intelligent design. Furthermore, when we look for an explanation of the inevitability of the inference, there seems to be nothing else to which we can appeal: what makes the inference inevitable is some necessary

truth—or perhaps necessary truths—which underlies it. But, if this is right, then the move from 1. to 2. seems reasonable: if it really is the case that it is the presence of function and suitability of constitution to function which makes the inference to design in the case of the watch *inevitable*, then we should agree that it is *necessarily* the case that where there is function and suitability of constitution to function so too there is intelligent design.

If the move from 1. to 2. survives scrutiny, then the only obvious problem for the argument is 1. itself. And, as I have already argued, it seems pretty clear that 1. is unacceptable because question-begging. True enough, there are cases in which we find an inference to intelligent design inevitable. (There are things which are necessarily products of intelligent design.) But in those cases, it is not the presence of function and suitability of constitution to function that makes the inference inevitable. Rather, as my previous discussion suggests, it is background knowledge about origins—origins of the materials used in manufacture, origins of the arrangement of the parts, and so forth—which makes the inference inevitable in those cases in which it is inevitable. Paley's argument fails because he fails to recognise the real explanation of *why* it is that we shall inevitably infer that things like watches are products of intelligent design.

(It might be suggested that the argument is better formulated by replacing 1. and 2. with the single premise:

(1+2) Necessarily, where there is function and suitability of constitution to function, there is intelligent design.

If the argument is formulated in this way, then it is clear that this is the premise which should be contested, and it is also clear opponents of the argument will plausibly be able to allege that the argument is question-begging. However, I prefer the formulation which I gave, because it is clear that the first part of Paley's discussion is meant to support something like this premise, and it is worth asking how the discussion succeeds in doing this. My suggestion, in effect, is that what Paley means to show is that we rely on 2. as an enthymeme in some clearly sound inferences. But, if that's right, then surely we have the best of reasons to accept 2. as a premise in an argument for intelligent design.)

5

As I mentioned initially, discussions of Paley's argument typically suppose either that it is an argument by analogy, or that it is an argument by inference to the best explanation. A typical formulation of the argument might go something like this:

1. The natural world contains function and suitability of constitution to function.
(Premise)
2. This fact is well-explained if we and the world are the product of intelligent design. (Premise)
3. There is no other explanation of this fact that is anywhere near as good.
(Premise)

4. (Hence) Probably, we and the world are the product of intelligent design.
(From 1, 2, and 3)
5. If we and the world are the product of intelligent design, then we and the world are the work of God. (Premise)
6. If we and the world are the work of God, then God exists. (Premise)
7. Probably, God exists. (From 4, 5, and 6)

Should we think that this argument is *much* better than the one that I attributed to Paley, and that this is a reason for attributing it to him instead? I don't think so. The relevant part of the argument⁶—down to the interim conclusion 4.—seems to me to be not much better than the argument which I attributed to Paley; and, in any case, this attribution doesn't receive much support from the text which Paley produced. In order to make a case for the first part of this contention, let me begin by reminding you of some of the standard objections to this kind of argument.

First, for reasons which Hume gave, it isn't clear that the appearance of function and suitability of constitution to function in the natural world is *well-explained* if we and the world are the product of intelligent design. Given that there is bound to be function and suitability of constitution to function in the designer, it seems that this cannot be a satisfying route to a *complete* explanation of the appearance of function and suitability of constitution to function in the natural world. If we must postulate (just as much?) unexplained function and suitability of constitution to function in the designer, then there is no explanatory progress—and hence, arguably, there is no good explanation at all.

Second, it is not clear that there is no other explanation of the appearance of function and suitability of constitution to function in the natural world which does about as well as the appeal to intelligent design. To start with, there is evolutionary theory. If it is contested that this provides a decent explanation of the appearance of function and suitability of constitution to function in the natural world, then there are always the alternative metaphysical hypotheses countenanced by Hume (and others). Perhaps, for example, the postulation of an ensemble of universes will explain the appearance of function and suitability of constitution to function in the natural world about as well as the appeal to intelligent design.

These seem to me to be quite telling objections to the argument sketched above. Moreover, it seems clear that opponents of the argument can quite plausibly allege that the conjunction of 2. and 3. is question-begging in the present context. Perhaps it might be conceded that the objection to Paley's argument as I construe it is more obviously correct than are the objections to the argument under consideration in the present section of my paper—but I don't think that there is all that much to choose between them. And whatever weight charity lends to the inclination to attribute something like this argument to Paley—as the argument which he *intended* to give, or would have given if only he'd been a student of contemporary philosophy—is more than counterbalanced by the distance that this interpretation must depart from the text which Paley actually produced.

6

Even if it is granted that the discussion to this point has some force, it might nonetheless be contended that there are reasons for refusing to attribute the argument in question to Paley. True enough, the argument which I have outlined seems to fit what he says when he states his argument in the initial chapters of his book. But those initial chapters occupy only a tiny portion of the book, a far greater proportion of which is occupied with detailed discussion of the appearance of design in the natural world. If Paley's argument is as I say it is, then why does he bother to go in for detailed discussion of many cases, when a fairly superficial discussion of one case seems to be all that is required?

This is a good question. But it's a good question for the competing interpretations of Paley as well. If Paley's argument were an argument by analogy, or an argument by inference to the best explanation, it seems that the bulk of Paley's book could not make any contribution to the argument. Since Paley divides the early chapters into 'State(ment) of the argument' and 'Application of the argument', it seems to me to be plausible to think that the 'watch' argument is over and done with at the end of the statement of the argument. What follows is not meant to add to the strength of the case; rather it is intended to do something else. Plausibly, I think, it is intended to show just how stupid atheists are: in case after case, it is no less obvious that there is function and suitability of constitution to function in animals than that there are these things in watches and other human artifacts, and yet atheists fail to draw the obvious conclusion!⁷

Perhaps it might be said that there is a style of argument—a sort of naïve induction—which might be supported by piling up cases. But what would the conclusion of this argument be? That there is evidence of design in x% of the world (by mass or volume)? That there is evidence of design in x% of living species? And if we can be quite sure that, say, the human heart is the product of intelligent design, then what reason could we have to resist the inference to the conclusion that the rest of the human body (and all other plants and animals) are also products of intelligent design? If the eighteenth and nineteenth century friends of the argument for design took themselves to be piling up evidence for the existence of God when they participated in the Boyle lectures, the Bridgewater treatises, and the like, it seems to me that this can only have been in the sense that they took themselves to be showing just how stupid atheists are. The evidence for the existence of God is *all around*: almost every creature and organ exhibits more intricate functions and better suitability of constitution to function than the most exquisite productions of human art. But then, why don't atheists infer to design in the former case when they are prepared to infer to design in the latter case just because of the presence of function and suitability of constitution to function?

Having made this case as forcefully as I can, I must admit to some residual disquiet. Paley doesn't explicitly say that he is doing what I take him to be doing in this part of his book. Moreover, after I'd written the first five sections of this paper, I discovered that something like the interpretation that I have proposed was made once before. If my interpretation is correct, then why wasn't it accepted on the previous occasion on

which it was proposed? Since this second point may appear substantial, I shall conclude this section with some further comments on it.

In his 1965 book, The Existence of God, Wallace Matson argues that ‘the argument for design’ should not be interpreted as an argument by analogy; rather, it should be interpreted as a deductive argument which relies on the false premise that, necessarily, where there is function and suitability of constitution to function, there is design. (I’ve modified Matson’s words slightly, to fit the language that I adopted earlier.)

Moreover, the placement of a footnote to Paley suggests that Matson thinks that this claim applies in particular to Paley’s treatment of the argument. Now, I want no part of Matson’s more general claim: there are many different arguments for design, some of which proceed by inference to the best explanation, some of which proceed by analogy, and some of which proceed in the way in which I claim Paley’s argument proceeds. Moreover, the considerations that can be urged against these arguments differ from case to case. However, even though Matson’s general claim seems to me to be hopelessly overstated, I do agree that his characterisation of the general form of the argument for design applies accurately to the argument that Paley presents in his Natural Theology. And I conjecture that the reason why this point was not taken up is that it lies somewhat buried in a discussion which most people, for quite independent reasons, will have taken to be seriously flawed. If Matson has argued his case only in connection with Paley, then I suspect that people would not still be so quick to suppose that the argument which Paley gives is an argument by analogy.

In the previous sections of this paper, I have set out what I take to be the logical structure of Paley's argument for design. I have argued (a) that most commentators have misrepresented the argument that Paley actually gives; and (b) that the argument that Paley actually gives is manifestly a poor one. Even if I am right, these matters are likely to be of interest mainly to historians of ideas. However, there are two ways in which the arguments that I have given are important for contemporary debates.

First, there *are* people who claim to be modern day defenders of Paley's *argument*. Given the argument that Paley actually gave, I don't think that anyone should want to claim such a mantle. (Of course, there are also people who say respectful things about Paley's argument; consider, for example Dawkins' claims about the persuasiveness of Paley's argument prior to Darwin.⁸ Again, I don't think that anyone who recognises the argument which Paley actually gives should want to say any such things.)

Second, and perhaps more important, there are modern versions of what is still essentially Paley's argument. Paley appealed to the biological data that was available in his day. Modern defenders of design arguments appeal instead to data from cell biology or astrophysics. But, if the core of their argument is the claim that, necessarily, where there is function and suitability of constitution to function there is design, then that claim cannot be supported in the way in which Paley tries to support it. The inevitability of the "inference" to design in the kinds of cases which Paley considers does nothing at all towards supporting the claim that, necessarily, where there is function and suitability of constitution to function, there is design.⁹

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ENDNOTES

¹ Examples of those who claim that Paley's argument is an argument by analogy include: Barbour (1966:84), Bowler (1984:49,117), Clack and Clack (1998:25-6), Davies (1993:95), Davis (1997:99), Gillespie (1979:84), Gould (1993:138-52), Hardy (1975:28), Hurlbutt (1965:171-2), Leslie (1989:151), Mackie (1982:133-145), Martin (1959:4), Martin (1990:125), Moody (1996:94), Ruse (1979:70-1), Swinburne (1991:134-6), Swinburne (1996:57-8), and many others from many different disciplines. An example of those who claim that Paley's argument is an argument by inference to the best explanation is Sober (1993:30-1). The lone dissenting voice that I know of—to be discussed right at the end of this paper—is Matson (1965:125-31). Perhaps the most egregious of those mentioned above is Barbour, who attributes an argument to Paley which begins: “Just as a person on a desert island, finding a watch whose parts are integrated ...”.

² Paley (1890/1805). All page numbers in the main text are to this work.

³ There may be some philosophers who will want to insist that it is an analytic—or necessary, or perhaps even *a priori*—truth that watches are the products of intelligent design (and hence to suggest that my suggestion is no more accurate than was Paley’s). However this consideration is not really to the present point: for we can still ask about what grounds our ‘inference’ to the conclusion that *this* thing is a watch, and then exactly the same considerations will arise over again.

⁴ Mackie (1982:144) writes: “Paley argued that if we found a watch on the ground we should infer that it had been made by an intelligent being. This is true, because we hardly ever find watches except where the supposition of human manufacture is antecedently plausible—on people’s wrists, in their pockets, in jeweller’s shops, and so on. But if watches were found as commonly on the seashore as shellfish, or as commonly on dry land as insects, this argument would be undermined.” Surely this isn’t right: it’s not the relative scarcity of watches in natural environments which makes it reasonable for us to insist that they are products of intelligent design. (Suppose there are more sheets of paper scattered about on dry land than insects: that won’t give us any reason to think that sheets of paper are naturally occurring objects.) Moreover, it’s not the common location of watches in human environments which makes this insistence reasonable either. (Suppose that, at some time in the future, nothing but plastic is used for packaging. Suppose further that there are tin cans scattered all over the floors of the oceans and around wilderness areas, but—because of local clean-up campaigns—they are found nowhere else. At that time, it will not become reasonable to suppose that tin cans are naturally occurring objects.)

⁵ There are ways in which the murkiness might be mitigated. For instance, one might seek to represent Paley's further reasoning in something like the following manner.

(1) The inference to intelligent design, in the case of the watch, is inevitable. (2) The inference to intelligent design, in the case of the watch, is correct. (3) The inference to intelligent design, in the case of the watch, is based on the observation of function and suitability of constitution to function. (4) If the inference to intelligent design, in the case of the watch, is both correct and inevitable, then the observations that support that inference must provide a logical guarantee for the correctness of that inference. Hence (5) It must be that, necessarily, where there is function and suitability of constitution to function, there is intelligent design.

⁶ It is well known that Hume provided a large number of objections to the fifth premise of this argument. However, for present purposes, we are just focussing on the (sub) argument for intelligent design; the prospects for turning any such (sub) argument into an argument for the existence of God are another matter entirely.

⁷ Plausibly, there are also other things going on. For instance, Paley no doubt hopes to establish the *benevolence* of the designer, on the basis of an examination of the details of creation. However, the bare inference to the existence of a designer is not made any stronger by the material that is presented in the rest of the book. To the extent that what follows has any implications for this matter, it can only be for the obviousness of the conclusion for which Paley argues.

⁸ Dawkins (1986)

⁹ This article was developed over a three year period in which I taught the subject "Science, Religion and Witchcraft" with John Bigelow at Monash University. I am indebted to many students who discussed Paley's argument with me. I am particularly indebted to Quentin Smith for his very helpful suggestions and editorial advice.

