

THE DESIGN ARGUMENT

(A town square somewhere in the Peloponnese, late afternoon. Anna Kalypsas and her two friends are enjoying a leisurely ouzo as the sun sets over the mountains. They're joined by Theo Sewvis, who orders a drink and then sits gazing for a moment at the sunset.)

Anna: Beautiful, isn't it?

Theo: Yes — I never grow tired of the wonders of god's creation.

(Mel stirs uncomfortably, Kathy looks up expectantly, and Anna smiles quietly at their reactions.)

Anna: Come on, then, Theo... that sounded too nonchalant to have been just a casual comment. I assume that you want to talk about religion again.

Theo *(all injured innocence)*:

No, not at all; I was merely expressing the way that I felt. Of course, I should have no objection to discussing religious issues with you, Anna. To what, though, did you think I was referring?

Anna: Well, I'd assumed that you were going to try to argue that god must exist, because how else could we explain the beauty of the world...

Theo: Hmm, beauty — well, yes, in a way. Beauty, though, is only part of it; it is what makes beauty possible with which we should be concerned. My thought was that the clear signs of design that we see in the world indicate the rôle of god.

Anna: OK, I'll let myself be drawn into this. But before we start, we've got to make some distinctions.

Kathy: As usual.

Anna: Of course; if you're not clear about the terms you're using, how can you be clear about what you're saying? In this case, Theo's used the term 'design', but that could mean two very different things.

Mel: Pattern and purpose?

Anna: Precisely. Sometimes people claim that the universe is patterned as opposed to chaotic, sometimes they claim that it has a purpose, and sometimes they claim both things.

Theo: Surely, the two things are inextricably linked?

Anna: Not really; it's true that purpose implies pattern, but it's perfectly possible for something to have pattern without purpose. And although patterns are easier to find, they don't give you enough — you still need to argue for the existence of a pattern-maker. Purpose is harder to demonstrate, but if you can find it, you don't need any further argument, because a purposer is already implied.

Mel: So, you can have a pattern that comes about by chance, but not a purpose?

Anna: That's right.

Theo: I *think* that I see your point. Leaving it to one side for the moment, though (and I am sure that we shall discover more on the subject later) (*Anna grins and nods*), is that the only distinction that you need to make?

Anna: It's probably the only crucial one, but there's one other that at least might be helpful. You see, you could claim no more than that there's evidence of order in the world, and argue that that needs explanation; or you could accept that the fact that there's *some* order isn't all that significant, but still claim that the *quantity* of order (perhaps *total* order) needs explanation. Finally, you might say that what needs to be explained isn't just that there's order, or even a certain quantity of order, but that there's a particular *sort* of order.

Kathy: A particular sort?

Anna: It could be anything, but in practice it's usually the existence of life — and most often it's the existence of us, of human beings.

Anyway, we can call these different approaches the *pure form*, the *quantitative form*, and the *anthropocentric form* of the argument to design. I don't think that you'll ever find them in complete isolation from each other, but it's useful to be able to distinguish them as strands of more complex arguments.

Theo: Argument *to* design? I thought that it was the argument *from* design?

Anna: It's often been called that, but it's rather a question-begging label. After all, the argument sets out to show that the world was designed, so it can't start from the assumption that it was. Some people call it the argument *to* design, others call it the argument *for* design...

Theo: I see. Well, let us not quibble about what the argument is called. Perhaps we could refer to it simply as 'the Design Argument'.

Anna: Oh yes, very good; I like that.

Theo: Well, fine. The real question is, though, why you think that my argument fails.

Anna: Before I can answer that I'll have to find out exactly what your argument is...

Theo: Ah, yes, let me think. I should not want to be tied down to any one argument until we have discussed the matter further. Let me put forward one version of the design argument, and see what happens.

Anna: Fair enough; go on then.

Theo: Very well. Let me see. You said that the appeal to purpose was more straightforward than the appeal to pattern, so I suppose that I should start there.

Perhaps I can borrow an analogy from a theologian of the past. Imagine walking in a desert, and coming across a watch lying on a rock. Even if you had never seen a watch

before, you would surely conclude that this was no natural phenomenon, but was the product of design. Now, that would be partly because of the intricacy of the mechanism, but my point here is more that the watch tells the time — it is surely virtually inconceivable that this be a mere coincidence, and that the watch came about by chance. In the same way, when we look at the world – and especially the living world – how can we suppose that it came to be as it is by chance?

Kathy: Oh, but surely Dr Sewis, you can't rely on that sort of argument any more — not since Darwin and the theory of evolution. I mean, we know now that what looks as though it has purpose can actually have come about through *natural* selection, without any purpose involved at all.

Theo: I have no problem with Darwin or with the theory of evolution in general, and it certainly defuses the more naïve versions of the argument from... sorry, I mean, the design argument. However, I believe that my version is untouched by it. Think about the watch in the analogy; it doesn't tell the time for itself, but for us. There is no advantage to it itself in telling the time, nothing that could play an evolutionary rôle.

Anna: A good point, Theo, but I'm not sure how you can carry that feature of the watch over into your analogy. Are you saying that the world has a purpose outside itself?

Theo: But of course — although its purpose is god's, not ours.

Anna: Now, you can't have it both ways. If you're interested in giving reason for belief in god, then you can't assume that the universe has a divine purpose; you have to start with evidence for its having a purpose, and then show that that purpose only makes sense in terms of god. The trouble is, I don't think that there *is* any evidence for the world having a purpose.

Theo: Well, perhaps not the world as a whole, but parts of it, surely? Take the example of the human eye... ah, no, that cannot work, can it? The eye has a purpose, true enough, but that purpose is for the human being of which it is a part, so essentially the purpose is for itself — that is why evolutionary theory can explain the development of sight. Hmm... perhaps I need a better analogy, or a better example.

Anna: Before you try to do that, it's worth pointing out some other problems; then you'll be better placed to come up with a satisfactory replacement. Any ideas, you two?

Mel: Well, to be honest I'm not sure that *any* analogy could be satisfactory. After all, for an analogy to work, you need to know enough about both sides, or be able to find out about them. For example, if I say that an electric circuit is like water in pipes, then either I need to know that electricity behaves like water in the relevant ways, or I need to be able to discover that it does. In the case of the world, we just don't know enough about it to be

able to come up with a decent analogy — and if we try on an analogy for size, we've got no way to discover whether it's a good one.

In Dr Sewis' first try, for example, he started by suggesting that the world, or part of the world, was like a watch in being obviously designed, but once he'd said that, there was nothing else to be said. He started with the analogy and ended with it. There's no way to discover whether the analogy's a good one, no way of investigating the world to see if it really is like the watch in having a designer.

Theo: But Mel, I am not claiming to use the analogy in the way that a scientist might use it — as a tool for the acquisition of knowledge. Rather, in accepting the design analogy, one is given grounds for living one's life in a certain way.

Anna: I'm afraid I don't follow, Theo. If the analogy doesn't clearly point anywhere, how can it give grounds for action? If it doesn't let you draw a conclusion, what exactly is your life grounded on?

Theo: This is the problem with philosophy — it insists on treating everything in the same, rational, literal way. The analogy here is like those in poetry: there is no clear, single, unequivocal meaning — rather, we are presented with something much richer and complex.

Mel: If you say so, Dr Sewis, but I still don't see how you can *live* by that kind of thing. I mean, I love poetry, and you're right that often what makes a poem work is ambiguity and tension — but I wouldn't try to live my life by it. How could I? Even if the ambiguity does help with thinking about how to live, it has to be resolved first.

Anna: And in any case, Theo, we're supposed to be discussing the design *argument*, not the design poem or the design meditation...

Mel: ...or the design for living.

Theo: Very well, very well; you are both right of course. But I am not yet convinced that purpose cannot be made to fit somewhere. What about this: it is clear that the order of the world — its pattern — makes it possible for us to gain knowledge, as well as for us to perceive and to appreciate beauty. Now, god would surely want us to be able to do all those things, so the fact that those things are in fact possible gives us reason to believe that he created the world. That is not a proof, I grant you, but it makes more probable the hypothesis of god as creator.

Mel: Actually, I thought that in Genesis god *didn't* want us to gain knowledge — at least not of good and evil. Isn't that why he forbade Adam and Eve to eat the fruit?

Anna: Well, true enough I suppose Mel, but let's not muddy the waters with theology; we've got enough on our plates as it is. The problem is that your argument sounds rather weak, I'm

afraid, Theo — with more than a hint of a vicious circle, in fact. Why, after all, do you say that god would want us to have those abilities? All you have are two facts: first, that we want the abilities, and secondly that we do have them — that that's the way the world is.

You see, there are two relevant hypotheses: either god exists and created the world, or god doesn't exist, in which case we created him — or, rather, the concept of him. The trouble is that your argument fits the latter hypothesis at least as well as it fits the former: *we* value beauty and the acquisition of knowledge, so if we invented a god we'd naturally make him want us to gain knowledge and appreciate beauty. In fact your argument depends on the assumption that you know what god wants — an assumption which I thought you wanted to deny in other contexts.

Theo: That is not quite fair, Anna; I should certainly say that we cannot know the whole of god's nature, but my faith depends in large part on what I believe that he wants from us as human beings and what he intends for us.

Anna: OK, forget that part (perhaps we can talk a bit about it some other time); my main point stands, though, doesn't it? You're still using claims about god's nature and plans in order to argue that god exists — and it doesn't matter whether your argument is supposed to be a knock-down proof or just something that raises the probability of god's existence. In either case you're arguing in a circle.

Theo: I see what you mean; it is not an argument that can or should convince the unbeliever. But still, as a Christian, the evidence of the world at least gives me rational grounds for the belief that I already have through faith.

Mel: I don't follow you, Dr Sewis.

Theo: You see, Mel, I start from a belief in god's existence — a belief that is founded in faith rather than reason. Then, however, I look at the world, and I see that it fits the way that I already believe god to be, and that gives some rational support to my belief.

Anna: I don't see why you think that that avoids the problems I pointed out, Theo. The circle's still there; the order you see in the world fits your view and its denial equally well. I wonder if you're confusing two notions of rationality?

Theo: I thought that as a philosopher you only acknowledged one notion of rationality, Anna.

Anna: True, in one sense, but what I mean is this. When we ask if a belief is rational, in the sense that it has rational grounds, we want to know if there are good reasons for us to hold it. But we sometimes ask a weaker question: is the belief rational, in the sense of being self-consistent (and, perhaps, consistent with other beliefs that we hold)? Does it make sense to hold it, as opposed to not having good reason to hold it?

For example, the notion of a flying saucer isn't self-contradictory, and it isn't ruled out (so far as I know) by any evidence or argument; in the weak sense, then, it's rational to believe in flying saucers. In the strong sense, though, we don't only need the absence of reasons not to believe in them — we need positive reasons to believe.

In the same way, Theo, it seems to me that at best your version of the design argument shows that belief in god is weakly rational — that it's not irrational to believe; what you wanted, though, was surely to show that your belief was rational in the strong sense — that there are good reasons to believe.

Theo: Oh, I see what you mean. Hmm... look Anna, I shall have to think about this further. In the meantime, perhaps we could look at other forms of the argument; if nothing else, I should learn what to avoid!

Anna: Fine, OK. Which version shall we start with?

Kathy: Couldn't we look at a *modern* argument? All the things I've looked at seem to be about pocket watches, and what people thought before Darwin, and stuff. I mean, hasn't science just ruled out the design argument altogether? Isn't it just like something in a museum, or do people still try to use it nowadays?

Anna: Well, in fact people do still try to use the old versions of the argument, but in fact there *are* modern versions — usually starting from the idea of the Big Bang, or at any rate the idea of however the universe began.

Mel: Is that the argument for fine tuning?

Anna: That's right, though there's more than one version. You've come across it, then?

Mel: Yes, doesn't it go like this? The Big Bang set the way that the universe was to be — right down to the nature of the physical laws and constants. What we might describe as slight differences in the way the Big Bang happened would have led to huge differences in the universe that it produced. Now it turns out that there's a very small range of possible Big Bangs that would have resulted in a universe like ours – that is, capable of producing and supporting life – and an immense range of possible Big Bangs that wouldn't give such a universe. The conclusion is that, as our universe was in fact produced, and the odds against that are astronomical (no pun intended), it seems likely that the Big Bang was deliberately set up so as to give the desired result — that it was fine-tuned by god to produce the result he wanted.

Anna: That's the basic shape of the argument, certainly. You can see straightaway that it's what I called earlier an *anthropocentric* version of the design argument. You'll also see that any analogy that it depends upon is in the background, unlike the older forms, which put the

analogy centre stage. What's key here is the idea that the nature of the world is astonishing — that it demands explanation.

Theo: Well, to be honest that seems fair enough Anna. If the facts are right, and the probability of our existence is astonishingly low, then we surely should be astonished; we are right to suspect that it did not happen by chance.

Anna: Hmm... OK, let's test that view. Say I have a pack of cards, which I shuffle at random, and I turn up the top card; it turns out to be the four of clubs. Would you be astonished?

Theo: Er, no — why should I be?

Anna: Well, it was fifty-two to one against the four of clubs being the first card; isn't that surprising? Shouldn't you suspect me of cheating?

Theo: To be honest, I fail to see your point, Anna. *Any* card would have an equal chance of being turned up; they would all be fifty-two to one against.

Anna: Right. Of course, if I'd bet you a lot of money that the first card would be the four of clubs, *then* you might be suspicious, mightn't you?

Theo: Well I suppose so.

Anna: In other words, surprise and suspicion are only justified under certain conditions — conditions that are external to the events concerned. It might be some significance attached to the events, like the cards example, or we might have some other reason to expect things to happen differently, perhaps because they've usually happened differently in the past. The trouble is, in the case of the Big Bang, neither condition holds.

Kathy: But isn't it significant that we exist? It seems significant to me!

Anna: That's just the point — it's significant *to us*, but not significant in itself. We think that we're important – and we *are* important to ourselves, to each other – but our importance comes into existence with us. If you assume that there's some being who finds us significant and so creates us or makes sure that we come about, then you can make a connection between our existence and a creator — but begging the question doesn't come much more obvious than that...

Kathy: Oh, I see.

Theo: I am still not sure that I follow you completely, Anna.

Anna: Well, think of it like this. Go back to the pack of cards; say you turn over a three of clubs, a four of hearts, a Jack of diamonds, and a two of hearts. Then you say: "This pack must have been tampered with." When I ask why, you say that the odds against just those cards coming up in just that order are astronomical, and when I point out that the same is true of *any* four cards, you explain that what makes it special is that these cards would allow the dealer to win a certain card game. But when I ask *what* game, you explain that you're

not entirely sure of the rules, but that it can be reconstructed from the order these four cards came up in. So the reason you suspect that the cards have been tampered with is that their order is significant, their significance relates to their use in a game, and the existence and nature of the game is inferred from the claim that they've been tampered with in a certain way.

Theo: All right, now I see what you mean — although I am not sure that I agree; I shall need to think about it. Still, let us grant for the sake of argument that the mere fact that we exist is not grounds for believing that god exists. Well, at best that means that what you called the anthropic version of the argument fails. Perhaps it does — and certainly it might be said that there is a certain arrogance in arguing that god must exist because otherwise how could there be creatures as wonderful as us? But you said yourself that the argument can take other forms; might one of them not fare better?

Anna: You mean still in the modern form — astonishment rather than analogies with watches?

Theo: Yes.

Anna: Well, let's start with the pure form. That would say something like this: it's amazing that the world has order (meaning pattern) in it rather than being completely chaotic, and the only explanation for that is something outside the world, namely god.

Theo: Hmm, put like that it is clearly very weak. I can see that there is no reason to make *god* the cause of the order. Nevertheless, we surely do need some explanation of the order that we find in the world, and although that cannot give us a proof, might it not at least count as evidence for god's existence?

Anna: I don't think so, I'm afraid. For the argument to work at all, it should at least be more likely that the world be unordered than that it be ordered; yes?

Theo: Yes, I suppose so.

Anna: Well, think of every way that the world might have been as a possible world; there's an infinite number of ways that the world might have been, so there's an infinite number of possible worlds.

Mel: Are these like the worlds in quantum theory?

Anna: No — but don't worry about that. We don't need to say anything more about possible worlds than that they let us talk about what's possible.

Mel: Oh, OK then.

Anna: So, how many completely unordered possible worlds do you think there are?

Kathy: But how can we say? There must be millions. In fact, there must be an infinite number of ways for the world to be unordered.

Mel: No, I think I see what you're getting at Anna. There's just one.

Kathy: One? Why?

Theo: Yes, I am puzzled too. Surely, even our limited knowledge and imagination are capable of devising a vast number of different sorts of chaos? And there must be countless possibilities beyond our capacity to conceive.

Anna: OK, every world represents one possible way this world could be, remember — so every world is different from every other world in some way, however slight. Now, what makes one thing different from another?

Kathy: I'm not sure what you mean, Anna. Two things are different if — well, if we can tell them apart.

Mel: I don't think that it's a question of whether we can tell one from the other; two things might be different even though *we* can't see the difference.

Anna: Right, so what is it that we'd be missing?

Kathy: Some property, I suppose, that one of them has and the other hasn't.

Anna: Precisely. (And I think that Mel's right, by the way; it's not whether we can tell them apart or not that counts, but whether they're really different.) So OK, go back to the possible worlds. Say we've got two worlds that are completely unordered; I don't mean just partly unordered, with atoms whizzing around without forming large-scale objects, or something like that. An atom is an instance of order; the very fact that we can call it an atom, in fact, shows that it comes under some general description, that it has certain properties and relationships with other things. No, a *truly* unordered world would have no things at all.

Theo: But then how can the two worlds be different if they have no features to distinguish one from the other? Oh, of course, I see—that is your point.

Anna: That's right: two unordered worlds would represent two possibilities, but here we haven't got two possibilities, just one possibility mentioned twice. So there's at most one unordered possible world, at most one way that the world could have been without order.

Mel: *At most one*, Anna? Does that mean that you're not sure that there's even one?

Anna: Right, I'm not sure at all. I don't think that I can really make sense of the idea of a world that's completely disordered. Worlds aren't containers like boxes; a world is the set of things, or facts. If there's no order, then there aren't any things or facts, so there isn't a set of them, so there isn't a world. In a way, I suppose that I mean that a world, a universe, just is a certain sort of ordering; without order there are no things and their relationships, so no properties... so no world.

Theo: I find all this rather dubious, Anna, I must confess. The question as to why there is something rather than nothing is one that has been debated for centuries; it surely cannot be answered – dismissed, in fact – so easily.

Anna: Well, many questions have been debated for centuries and then dropped because it's realised that they don't really make sense — usually because we've learnt a new fact or set of facts (either by experience, or by reason), but sometimes because we've found a new way of thinking about things. But in fact I'm not claiming to do that here. I'm not saying that there must have been a universe — only that, if there's a universe, it must be made up of something. It's logically impossible to have an empty universe, but not logically impossible that there not have been a universe at all.

Theo: So... you mean that there *might* have been nothing after all?

Anna: In a way, yes. Either there was no universe at all, or there was an ordered universe. That doesn't help you though I'm afraid Theo. You needed the possibility of an unordered world, and all I can offer is no world at all.

Some suggestions for further reading

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| David Hume | – | <i>Dialogues concerning Natural Religion</i> |
| John Barrow & Frank Tipler | – | <i>The Anthropic Cosmological Principle</i> |
| John Leslie [ed.] | – | <i>Physical Cosmology and Philosophy</i> |
| Tom Stoppard | – | <i>Jumpers</i> – especially pp 24–30 |

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