

LECTURE #15: Critiques of the Design Argument: Hume

Robert C. Koons

Overview

Why Hume casts the Argument in terms of Similarity

The Infinity and Unity of the Designer

Why Hume casts the Argument in terms of Similarity

Hume puts the design argument into the mouth of one of his characters, Cleanthes. Cleanthes casts the argument as one based on similarity: the world is similar to a machine; similar effects have similar causes, so the cause of the world is similar to a human designer or creator. Hume's way of setting up the argument immediately poses a dilemma for the traditional or classical theist: she must either side with Cleanthes, embracing an anthropomorphic conception of God, or she must instead embrace the agnosticism of Philo and or the purely negative theology of Demea. Classical theism, which involves a Creator who is "wholly other" than us and yet who can be known on through His effects, is excluded from the start.

As I have argued in the preceding lecture, the design argument need not depend on making any claim about the similarity of the world to human artefacts. Instead, the explanation of certain features of the world, including the anthropic coincidences and the elegance of fundamental physical laws, leads us to the positing of a teleological form of causation, causation making reference to the powers of a thing to produce certain kinds of effects. Once we have identified these features of the world as purposive, the existence of an intelligent, purposeful agent is an immediate consequence. None of this depends on the effects of this agent being at all similar to those of human agent, except in the bare fact of being purposive.

Why, then, does Hume cast the argument exclusively in terms of similarity? An uncharitable interpretation would be that he choose to do this because he knew that this sort of design argument is vulnerable to crushing objections. This would be to accuse Hume of a Straw Man strategy, deliberately setting up a weak form of the argument for easy refutation. However, this cannot be the whole story, since if Hume were merely indulging in Straw-Man fencing, the contemporary defenders of theism would have pointed this out, and Hume's book would not have had the kind of influence it has. No, Hume's decision to cast the design argument in this form must appeal to something deep-seated in the modern frame of mind.

This fact becomes still clearer when we realize that Cleanthes' version of the design argument is constrained by Hume's own epistemology, his theory of knowledge. According to Hume, all empirical knowledge is of two kinds: immediate perceptual knowledge, and inferential knowledge. All inferential knowledge proceeds by projecting patterns that have been observed onto cases that have not been observed.

I have observed the sun repeatedly rise and set, so I infer that the sun always has and always will rise and set in the same way. I have observed only white swans, so I infer that all swans are white. This form of inference is known as straight or enumerative induction. According to Hume, all inferential knowledge is based on straight induction.

When straight induction is applied to causal reasoning, the result is the the similar effects/similar causes principle. I see a particular sequence, water heated -> water boiling, repeated over and over. When I encounter a new case of water boiling, I assume that it was preceded by a case of water being heated. I infer the existence of causal sequences that are similar to the ones I have already seen. This means that the design argument must take the form Cleanthes gives it: I must be able to fit the order of the world into a pattern that includes the order of human artefacts, so that I can then infer that there is something like an artificer behind the world's order.

Hume's assumption that all inferential knowledge consists of straight induction is extremely limiting. All theoretical science will fail to count as knowledge by Hume's standard, since inferring the existence of such things as atoms, quarks, black holes, quasars, etc. involves inferring things that are very dissimilar to anything found in our immediate experience. Particle physicists attribute a whole host of very exotic properties to particles (charm, color, spin, ...), none of which have any counterpart in our sensory inputs. Quantum mechanics posits processes that are literally unimaginable. In theoretical science, we posit whatever kind of causes we need to explain the phenomena with the greatest possible degree of simplicity.

This raises a new problem: why did Hume adopt such a narrowly empiricist epistemology, in conflict with the whole direction of modern science toward greater and greater theoretical distance from experience? The answer to this question lies in Hume's theory of human thought or cognition. Hume claimed that all of our concepts are based directly on sense experience. Our ideas, Hume proposed, are merely faint copies of our sensory impressions. This doctrine places severe limitations, not just on empirical knowledge, but on thought itself. Not only can we not know anything about the existence of imperceptible properties and processes, we cannot even think about such things. This means that all of theoretical science is literally meaningless, merely a set of symbols useful for cataloguing, predicting and manipulating that which can be immediately perceived. In other words, this leads to a thoroughly instrumentalist view of theoretical science.

Instrumentalism has not fared very well in recent work in philosophy of science, because they are many features about scientific practice, including the concern for logical consistency and the use of multiple theories to deduce novel predictions and explanations, that cannot be accounted for by an instrumentalist model.

Why does Hume adopt such severe limitations on the powers of human thought? Here we reach a third, and I think final, level: the level of metaphysics or ontology (the theory of what sort of things exist). Hume is simply working out, in a more consistent and systematic way, assumptions that had become commonplace in philosophy since the advent of nominalism in the late middle ages. There are two influential theses that are relevant here:

- Nominalism: there are no universals, only particular things.
- Anti-relationism: relations do not really exist in objects, they are only the products of human cognition.

We have already discussed nominalism. Nominalists deny that there are such things as properties or types that can be realized or instantiated in many different particulars. According to nominalists, the only things that exist are the particulars. Types or kinds of things exist only insofar as we thinkers or speakers group particulars together for the sake of language or thought. There is no such thing as the property of bovinity, there are only individual cows, and the collection of things that we refer to when we use the word "cow". Nominalists argue that their theory is simpler than realism, since the realist must posit three things: the particular cows, the collection of things possessing the property of bovinity, and the property of bovinity

itself. Realists respond that the property is needed for several reasons, including a complete explanation of why we refer to the particulars we do when we use the word 'cow'.

A typical nominalist response to this realist argument is to bring in the relation of similarity. We call something a 'cow' because it is very similar to other things that we and our fellow English speakers have called 'cow' in the past. It is mutual similarity that binds together the collection of things called 'cow', not some universal property of bovinity.

The thesis of anti-relationism is a commonplace in both ancient and medieval philosophy. Ancient and medieval philosophers are inclined to think that the qualities and other intrinsic characteristics of individual objects correspond to real or objective facts, while relations between objects are merely a product of human thought and perception. It our perception of things that constitutes one thing's being larger than, to the right of, or more beautiful than another.

I believe that the main reason for this prejudice against relations has to do with the incomplete state of logic in the ancient and medieval worlds. Aristotle's logic provided the principal substance of logic for over two thousand years. Aristotle's logic was the logic of the syllogism, which is a logic of categories or classifications. Aristotle's logic could not accomodate reasoning about relations, and, for this reason, the syllogism played little role in the development of mathematics. Mathematicians thought of their proofs as appeals to our intuitions, not to logical relations between axioms and theorems.

All of this changed with the advent of modern mathematical logic, beginning with the work of Frege and Peirce in the late 19th century. For the first time, logicians had a formal logic that was adequate to the task of representing reasoning about relations. This brought about a revolution in the philosophy of mathematics, but it also had revolutionary effects in metaphysics and ontology. There has been a very palpable rise in the respectability of relations as real constituents of the world since the introduction of modern predicate logic. The metaphysics of Peirce and the pragmatists, of Russell and the atomists, of Whitehead, and of many others put relations on an equal footing with qualities and categories.

The early modern period shared the prejudice of ancient and medieval philosophies against relations. Consequently, there is a strong tendency for early modern philosophers to think of the relation of similarity as one that involves the activity of the human mind. Things are similar simply because we find them so. There is no mind-independent fact of the matter about what is similar to what.

When this prejudice against the reality of relations is combined with nominalism, the result is that the content or meaning of our concepts must be grounded in our own subjectivity alone. I can call something a 'cow' when I find it similar (subjectively speaking) to other instances that I have called 'cow' in the past. This similarity cannot be a similarity in the things themselves, so it must attach to the appearance of things in my mind. Consequently, my general concepts can extend no farther than the range of my sensory inputs. General concepts must be based on similarity relations among sensory impressions, and in this sense my ideas must be "copied" from these impressions.

However, if we reject nominalism and anti-relationism, the basis for Hume's restrictions on human thought and human knowledge collapse. If we are realists, our concepts can make reference to real properties or types, instantiated in external objects. This reference in most, and perhaps all cases, is mediated by some kind of causal chain. For example, physicists can think and theorize and gain knowledge about the **charm** of quarks, because there is a real property possessed by many quarks, and this real property is connected, via certain kinds of experiments and micro-to-macro processes, to the physicists' use of the word 'charm'. Similarly, we can have knowledge of God's properties, even of His unique properties, by virtue of the fact that these properties have perceptible effects. Nothing prevents us from reasoning from effects to very exotic, unfamiliar kinds of causes. Inferential knowledge can involve the inference of imperceptible causes that are very dissimilar to anything we can perceive.

The Doctrine of Analogy

If we reject nominalism, then we can escape the dilemma of anthropomorphism-or-agnosticism that Hume proposes. The way of escape is through the doctrine of analogy, developed by Aquinas and based on Aristotle's metaphysics. Simply put, analogy is sameness without similarity. Analogy is a relation between two cases of predication or attribution of a property. For example, if I say that oak trees are alive, and tigers are alive, these two predications are analogous. Oak trees and tigers share the very same property, life, but life is realized in these things in two radically different ways. The life of an oak tree bears little resemblance to the life of a tiger, beyond the bare fact that both are instances of life.

Similarly, if we say that humans are intelligent and God is intelligent, we are attributing intelligence analogously. Similarly, 'God creates' and 'Man creates' are analogous attributions. Both statements are literally true -- there is no mere metaphor involved. But each is true in a radically different way from the other -- there is little or no similarity in what makes them both true.

There are three kinds of predication that need to be distinguished: homologous, analogous, and metaphorical. Homologous predication involves sameness with similarity, analogous predication involves sameness without similarity, and metaphorical predication involves similarity without sameness. If I say that Austin is alive, I am speaking metaphorically, saying that the level of activity in Austin is similar to that in a living organism. Austin does not actually have the property of life, despite the fact that it is no more dissimilar to a tiger than a paramecium is. It is not the degree of similarity that matters, but the presence or absence of the relevant universal characteristic (in this case, that of life).

The Infinity and Unity of the Designer

In the Dialogues, Hume argues that the design argument fails because it cannot demonstrate that God is infinite and perfect, or that there is only one God. Certainly, Hume has a point here. No matter how wonderful and intricate the design of the world may be, it is always possible that it is the result of a very great, but finite and imperfect designer. However, if we are looking, not for a demonstration of the existence of God, but only for evidence that makes God's existence probable, there do seem to be considerations that point decisively toward an infinite God.

First, there is the issue of the simplicity of the explanation. As I argued in my last lecture, the theistic hypothesis is simple in two ways. First, it involves only simple numbers and quantities, like zero and infinity. Simpler explanations are always more probable than unnecessarily complex ones. We have no reason to introduce the added complexity of placing finite bounds on God's intelligence. Second, an infinite mind can be much simpler in its internal constitution than can any finite mind. An infinite mind can be both non-discursive and non-representational, eliminating the need for a highly organized brain. If we posit a finite mind as the designer of the universe, we only push the problem back a step, since the finite mind would require a highly complex brain, and we would need to find a satisfactory explanation for the existence of such a brain. Only an infinite mind provides a satisfactory stopping-point.

Second, we can appeal to the conclusion of the cosmological argument. The cosmological argument led us to the existence of an uncaused, necessary first cause. We found good reason to believe that this first cause has only infinite attributes. Thus, the ultimate explanation of the order of the universe must lie in the qualities of this first cause. Since the teleological order, the purposiveness, of the universe calls for an intelligent cause, we must in the end attribute intelligence to the first cause. Since this first cause is original and necessary, this intelligence must be infinite.

Finally, on the question of the unity of God, it must again be admitted that Hume's objection is an apt one. The most the design argument can give us is the functional unity of the Godhead -- if God consists of a plurality of agents, they must be agents that are capable of cooperating quite effectively, since the setting of the anthropic values required exquisite coordination. However, the cosmological argument does give us some grounds for attributing some kind of ontological unity to God, since, as al-Farabi, ibn-Sina and Aquinas argued, it is hard to see how there could be more than one infinite, uncaused, simple beings.

Copyright © Robert C. Koons. All Rights Reserved.