Natural Theologians

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Can the study of the natural world demonstrate the existence of God? Natural theology is defined as the drawing of inferences and proofs regarding God from the natural world. A well-defined natural theology arose only at the end of the 17th century, but once developed it showed great resiliency and flexibility down through the 19th century, and it was particularly prominent in the English-speaking world.

The foundational text in the genre is a work by John Ray. Ray was born in 1627, the same year as [English natural philosopher and chemist Robert] Boyle. He studied at Cambridge and became especially interested in plants. He proposed some early classification systems for them, and parts of his system are still in use. In 1667, he was made a fellow of the Royal Society of London, the oldest scientific society in continuous operation, and he published prodigiously. Ray was also ordained an Anglican priest in 1660. As such, he is another example in the long line of people in Holy Orders who were also involved in the study of the natural world.

In 1691, Ray published a book entitled *The Wisdom of God Manifested in the Works of Creation*. It proved very popular. It was reprinted frequently for over 50 years. Ray's work, like that of Boyle, Newton, and other 17th-century natural philosophers, was based on the conviction that, "There is, for a free man, no occupation more worthy and delightful than to contemplate the beauteous works of nature and honor the infinite wisdom and goodness of God." Ray's book presents material gained from all kinds of recent studies in the fields of botany, anatomy, astronomy, physiology, and so forth, all of them proclaiming the wisdom and goodness of God. In other words, the investigation of the natural world enhances reverence for its creator.

In 1802 there appeared what is probably the most widely read example of the genre, William Paley's *Natural Theology*. Paley was himself an Anglican vicar and a writer of textbooks, largely on moral philosophy. There wasn't much original material in Paley's volume, but it did summarize much of what had gone on in the natural theology tradition of the 18th century. The book was regularly read in university curricula, and it greatly impressed, among many others, a young Charles Darwin.

Finally, perhaps the most extensive work on natural theology appeared in the 1830s. These were the Bridgewater Treatises, an eight-volume set funded by a bequest from the 8th Earl of Bridgewater. He left £8,000 to commission and print works, "on the power, wisdom, and goodness of God as manifested in the creation." Authors were chosen by a committee composed of the president of the Royal Society, the Bishop of London, and the Archbishop of Canterbury. The series contained works on astronomy, anatomy, chemistry, geology, and other fields.

The hundreds of works on natural theology that appeared over the course of nearly two centuries were written by a wide variety of authors. So were they predominantly natural philosophers or clergymen? Well, often both. John Ray, as an example, his activities were evenly divided between natural philosophy and divinity, and he held credentials in both. Other authors were active predominantly in only one of the fields. Paley was a clergyman without personal activity in natural philosophy. He borrowed from the works of others for their natural theological writings.

On the other side was, for an example, Bernard Nieuwentijt. He was a Dutch mathematician and a doctor of medicine. And in the 1710s he wrote one of the few notable non-British works on natural theology. But in fact, the book went through many more printings in England than it did anywhere else. What was the main thrust of all this authorial activity? While some argued that the attributes of God could be drawn from the natural world, most natural theology was content to prove God's existence. This goal was already clear in John Ray. He writes:

> There is no greater, at least no more palpable and convincing argument of the existence of a deity than the admirable art and wisdom that discovers itself in the make and constitution, the order and disposition, the ends and uses of all the parts and members of the stately fabric of heaven and Earth. For if, in the works of art, as for example a curious edifice or machine, counsel, design, and direction to an end appearing in the whole frame and in all the several pieces of it do necessarily infer the being in operation of some intelligent architect or engineer.

You'll see there was a shortage of periods in the late 17th century. They didn't like to use them up unnecessarily.

There is a fine example here of how most natural theology rests upon one principle: the argument from design. The argument from design holds that the smooth functioning and intricate contrivance of natural objects implies a designer. That is, it provides proof for the existence of God. Atheism was the natural theologian's prime target, and signs of design, his chief weapon.

The classic example is the story of the watch. It was told by Paley in 1802, even though he collected it out of Nieuwentijt, and Nieuwentijt himself drew upon ideas connected with the mechanical philosophy. The story goes like this: Imagine one day you are out walking in an isolated place, and you see a watch lying on the ground. You pick it up, and you look at it. You open the back. You notice how beautifully the gears are cut and how

perfectly they fit together. You see that the best possible materials are used to make the component parts. And you wonder where did the watch come from? From the watch, therefore, you naturally infer a watchmaker, even if there's nobody in sight and you can find no direct sign of the watchmaker, you know he must be out there somewhere, simply because you have the watch he made in your hand. The argument then moves from artificial to natural objects. Consider the eye. See how beautifully it's put together, how ingenious the adaptation of parts; therefore, looking at the eye, you are sure of the existence of a designer of the eye, which we conclude to be God.

What did people in the 18th century actually make of the argument from design? The argument from design was subject to criticism already by the middle of the 18th century and not just, or even predominantly as it turns out, from those inclined towards atheism. The argument on examination turns out to be weak, ambiguous, and from the position of orthodox Christianity, potentially dangerous.

Several thinkers, David Hume among them, pointed out that the arguments from design might not take you where you want to go. A watch might imply a master watchmaker, but it could just as easily imply a company of watchmakers, in other words, polytheism. Or it could point to an apprentice watchmaker, something akin to Plato's Demiurge, and even if we get to monotheism, the god of natural theology is far from the Christian God without moral force, unique eternity, or personal concern about the creation.

In fact, deists–in other words, those who believe in a god but one who is impersonal and detached–latched on to natural theology every bit as much as Anglican vicars. Deists used it to show that Christian revelation was unnecessary. The principles of religion could be gathered entirely from nature by reason. So faith, revelation, and church are all unnecessary. When pressed too forcefully, the argument from design actually encourages non-Christian views of God. It does so by overemphasizing arguments drawn from reason for his mere existence, at the expense of faith in revelations of his attributes. You see the difference. From a Christian perspective, merely demonstrating the existence of God is really a pretty cheap commodity. So there's a designer God, big deal. He could be the God of the Neo-Platonist who isn't even aware that he created the universe and who doesn't, can't even, care about you and your problems. This is totally antithetical to Christian theology that the best metaphor for God is "Father."

Besides the endpoint to the argument, there are problems with the mechanism. The argument is held together by analogy, and analogical reasoning is only as valid as the analogical basis is sound. What does that mean? Let's consider the propositions. A watch implies an intelligent watchmaker. Okay, no problem, we've seen watches being made. The proposition is then used analogically to say that the eye implies an intelligent eye maker. But this assumes that natural things, eyes, are produced like artificial things, watches. The analogy is a legacy of the mechanical philosophy, but it's questionable. Natural things arise spontaneously as units, from seeds, eggs, and such like, and they reproduce others like themselves. Artificial things, on the other hand, are composites assembled piece by piece. You may have a drawer full of watches, but you would never open the drawer to find they've given birth to new ones.

A second assumption is that God, the maker of natural things, works like a human being, the maker of artificial things. Well, besides being inherently unlikely, this is dangerous as anthropomorphism. It brings God down to a human level. It threatens to make his activity banal, mechanical to be precise, and rob him of transcendence.

Worse still is that design is often in the eye of the beholder. We cannot tell whether what we perceive as design is real or our construct. We cannot put a designed universe next to an undesigned one and compare the difference. There's no valid control, no valid yardstick by which to measure degrees of design. Another way of saying this is to point out that the argument from design depends first upon an argument for design. That is, we must first demonstrate clearly that there is transcendent design, and that will be impossible unless we can compare how things turn out with design to how they turn out without design.

Arguments for design in the world rely ultimately upon appeals to ignorance. We, say, cannot imagine how an intricate system could come to be without an intelligent designer. All such arguments lead, as we've seen, to a god of the gaps. We don't currently have a way to explain what we see, and so we resort to God as an explanation. The arguments from and for design are not really rational arguments. What do they appeal to? They appeal to our emotions, our feelings of awe and wonder, rather than to our reason.

The world is an extraordinary place. It is full of marvels, but you can't turn admiration into an argument. Therefore, while design arguments are great for exhortation in a devotional context, they are unsatisfactory in a probatory one. This point now highlights a crucial historical development, a shift in what natural theology was actually asked to do. Initially, natural theology was about heightening devotion in believers. It was thus intensely personal. But this function was progressively displaced in favor of a public use as an apologetic to convince nonbelievers. That's where the weakness lies.

A believer studying the marvelous intricacies of the natural world can see the hand of God and have his devotion increased, but a nonbeliever, while subject to the very same feelings of awe and wonder, is not going to translate that emotional response into praise of a creator. Instead, he could just as easily marvel at the efficiency and power of the operation of natural causes. In short, a sense of wonder is going to enhance your respect for whatever cause you already have in mind, not change its identity.

We shouldn't overlook the hand of history. Natural theology's development stems largely from circumstances particular to 18th-century England. First, the reliance on such arguments makes sense only in a context where there's already paranoia about atheism. Second, there was, specifically in England, pressure to turn to reason for religious apologetic because of the political situation. The English Civil War of the mid-17th century left a legacy of religious dissension and sectarianism, especially by "low" church enthusiasts as they are called, namely, people who relied on personal experiences of faith or revelation and who opposed the Church of England. One solution was to turn to reasoned-based arguments instead of faith- or Bible-based ones, with the assumption that reason is something everybody can agree on.

The members of the Royal Society believed that experimental natural philosophy was also something that people of differing religious commitments could agree on. Thus, with the social and political need to restore order and unity in Britain, the alliance of natural philosophy and religious apologetic was a natural solution.

Thirdly, there's something very English about the image of a proper, well-ordered world governed by a beneficent sovereign. Indeed, the similarity between the natural theologian's view of the world and the projected image of the English state and crown has been remarked upon by many historians. There is also a social specificity. You are far more likely to come up with or buy into the idea that the world is perfectly designed by a benevolent deity if you are a country vicar sipping sherry, looking out into your garden; more so than if you are a peasant in a hovel trying to scrape a few beans out of a lousy plot of land and half of your children die before the age of 10. In the same way, England's green and pleasant land

suggests an agreeable natural theology better than would a harsher environment like Central Africa.

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