

Thomistic Rebuttal of Some Common Objections to Paley's Argument From Design

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In a recent article, Thomist Edward Feser maintains in regard to the Fifth Way that "Aquinas's essentially Aristotelian conception of teleology, however modified, radically differentiates the proof from the non-Aristotelian 'design arguments' of Paley and other modern philosophers."¹ According to Feser the difference in Aquinas's and Paley's views of teleology renders Paley's argument for God's existence not only different from Aquinas's Fifth Way, but "incompatible" with it.²

My position is that the two arguments for God's existence are not only compatible, but are also very similar, and that the supposed difference in their authors' views of teleology has no bearing on their arguments for God's existence. It is quite possible that there are inconsistencies in Paley's reasoning; however, my interest is to present his argument from design in its strongest form and to offer a partial defense of it by responding to some of the arguments that are typically leveled against it (including Feser's). My hope is that Paley's argument will receive more nuanced treatment, once these objections are cleared away.

In the first part, I will present the purported difference in Aquinas's and Paley's views on teleology that Feser and others consider fatal to Paley's argument from design. I will then present Aquinas's fifth argument for God's existence. I will then show that the view of Aquinas on teleology that Feser claims is crucial to the Fifth Way has no bearing on it. I will next set forth Paley's argument, after which I will consider whether the view on teleology that Feser attributes to him vitiates his argument. In the second part, I will show that Paley is not giving an argument by analogy. In the third part, I will bring out an important similarity in the arguments of Aquinas and Paley. In the fourth part, I will briefly consider some of the differences in the arguments, and in doing so will address another argument commonly raised against Paley, namely, that his argument is not a

¹ Edward Feser, "Between Aristotle and William Paley: Aquinas's Fifth Way", *Nova et Vetera*, 11, 3, (Summer 2013), pp. 707-08.

² See Feser, "Between Aristotle and William Paley," p. 740.

demonstration. In the fifth and sixth parts, I will respond respectively to the claims that Paley’s argument is subject to the same critique as Intelligent Design (ID) arguments and that it fails because of its inability to illuminate questions concerning the divine nature.

1. Does the Distinction Between Having an Intrinsic Tendency to an End vs. a Tendency Imposed from Without Have Any Bearing on Aquinas’s and Paley’s Arguments?

Feser points out that natural things have inherent tendencies to achieve certain goals, whereas artificial things achieve certain goals because they are ordered to do so by something outside themselves, and he illustrates this using a simple example: “The parts of the liana vine have an inherent tendency to function together to allow the liana to exhibit the growth patterns it does, to take in water and nutrients, and so forth. By contrast, the parts of the hammock—the liana vines themselves—have no inherent tendency to function together as a hammock. Rather, they must be arranged by Tarzan to do so.”³ Feser claims that the distinction between “immanent teleology” and “extrinsic teleology” (his terminology, not Aquinas’s⁴) is “vital to an understanding of the Fifth Way.”⁵ Feser maintains that Paley fails to see the difference between natural and artificial things, envisaging the former to be ordered to their ends by having this order imposed from without in the manner in which the ordering to an end of an artifact is imposed from without. I am not sure that this is true, but will concede the point, to see whether or not it has any effect on Paley’s argument from design.

Does this distinction enter into Aquinas’s Fifth Way? The Fifth Way is composed of the following two syllogisms:

Everything that always or frequently operates in the same mode such that what is obtained is the best is something that tends to an end (“operator ad finem”), and does not arrive at it by chance.

Some things lacking knowledge, namely, all natural bodies (*corpora naturalia*), are things that always or frequently operate in the same mode such that what is obtained is the best.

³ Feser, “Between Aristotle and William Paley,” p. 709.

⁴ Aquinas never uses the expression “immanent teleology.” He speaks rather of “natural appetite” which he defines thus: “natural appetite is nothing other than the ordering of some things according to their own nature to their end” (*In Octo Libros de Physico Auditu Commentaria*, ed. Angeli M. Pirota, O.P. [Naples: M. D’Auria Pontificius Editor, 1953], Bk. 1, lec. 15, #276]. All translations of Aquinas are my own. Unless otherwise noted, all texts from Aquinas are drawn from the online *Corpus Thomisticum*, ed. Enrique Alarcón, University of Navarre, <http://www.corpusthomicum.org/iopera.html>.

⁵ Feser, “Between Aristotle and William Paley,” p. 714.

Some things lacking knowledge, namely, all natural bodies, are things that tend to an end (ex intentione perveniunt ad finem), and do not arrive at it by chance.

Everything which tends to an end (tendunt in finem), lacking knowledge, is a thing that is directed [to an end] by some knowing and intelligent being, as an arrow by an archer.

All natural bodies are things lacking knowledge that tend to an end.

All natural bodies (omnes res naturales) are things directed to an end by some knowing and intelligent being.⁶

Aquinas understands “acts for an end” (operatur ad finem) to be equivalent to “arrives at an end due to tendency” (ex intentione perveniunt ad finem) to be equivalent to “tends to an end” (tendunt in finem). He also uses directed and ordered interchangeably in the second syllogism. In addition, he substitutes “all natural things” for “all natural bodies” in the conclusion of the second syllogism. Accordingly, I have adjusted the translations to make clear that a fourth term has not been introduced. I have slightly modified the translation in the first syllogism to make the copula clear, and have also added in “all” to modify natural bodies.

Aquinas’s Fifth Way consists of two first figure syllogisms, each of which has three terms. However, two of the terms in the second syllogism are identical with terms in the first, so all told there are four terms. The terms are: 1) natural bodies; 2) things that always or frequently operate in the same mode such that what is obtained is the best; 3) things lacking knowledge that act for an end; 4) things directed to an end by some knowing and intelligent being. One can see that none of these terms is “immanent teleology,” i.e., (things) tending to an end in virtue of intrinsic principles. Even if one substitutes the definition of natural in the case of natural body, i.e., “a body that has an intrinsic principle of motion and rest” this is not equivalent to saying “a body that acts for an end in virtue of its intrinsic principles.”

Another way of seeing that the notion of an intrinsic ordering to an end does not enter into the Fifth Way is by inspecting the premises. If we look at the first syllogism we see that the major premise is applicable to artifacts despite their “extrinsic teleology:”

⁶ *Summa Theologiae*, ed. Instituti Studiorum Medievalium Ottaviensis (Ottawa: Commissio Piana, 1953), I, q. 2, a. 3: “Quinta via sumitur ex gubernatione rerum. Videmus enim quod aliqua quae cognitionem carent, scilicet corpora naturalia, operantur propter finem; quod apparet ex hoc quod semper aut frequentius eodem modo operantur, ut consequantur id quod est optimum; unde patet quod non a casu, sed ex intentione perveniunt ad finem. Ea autem quae non habent cognitionem, non tendunt in finem nisi directa ab aliquo cognoscente et intelligente, sicut sagitta a sagittante. Ergo est aliquid intelligens, a quo omnes res naturales ordinantur ad finem, et hoc dicimus Deum.” (Hereafter cited as *ST*.)

“Everything that always or frequently operates in the same mode such that what is obtained is the best is something that acts for an end, and not by chance.” One can just as well conclude from it that washing machines act for an end, as one can conclude from it that natural bodies act for an end.⁷ Plainly, then, this premise in no way specifies whether the tendency to an end referred to is from an intrinsic or extrinsic principle. The minor premise as well makes no reference to intrinsic ordering to an end. If it did the argument would be question-begging as it seeks to conclude that natural things tend to an end, for the minor would then read: “all natural bodies, tending to an end in virtue of an intrinsic principle (or principles), are things that operate in the same mode such that what is obtained is the best,” and yet the conclusion to be drawn is that natural bodies tend to an end. Thus, since neither premise makes reference to “immanent teleology,” this notion is necessarily absent in the conclusion. Whence one can see the inaccuracy of Feser’s claim in regard to the conclusion of the first syllogism (which he translates as: “Hence it is plain that not fortuitously, but designedly, do they achieve their end”) that “designedly . . . must be read in an Aristotelian way, as connoting final causality or immanent end-directedness as opposed to chance.”⁸ Aquinas, as we have seen, says nothing about “immanent end-directedness.” His conclusion is simply: “whence it is manifest that they arrive at an end, not by chance, but from a tendency” (“unde patet quod non a casu, sed ex intentione perveniunt ad finem”).⁹

As for the second syllogism, Aquinas explicitly says that the major premise applies to artifacts: “Everything which tends to an end, lacking knowledge, is a thing that is directed by some knowing and intelligent being, *as an arrow by an archer*.”¹⁰ The minor premise is

⁷ Aquinas elsewhere makes it plain that the notion of tending to an end [“intendere finem”] is not restricted to natural things: “to tend [intendere] to is to tend to something [in aliud tendere], which certainly belongs to the mover and to the thing moved. Therefore, according as to tend to an end [intendere finem] is said of that which is moved by another, in this manner nature is said tend to an end, as moved to its end by God, as an arrow by an archer” (*ST I-II*, q. 12, a. 5).

⁸ Edward Feser, “Teleology: A Shopper’s Guide”, *Philosophia Christi*, 12, 1, (2010), p. 156. Note how Feser here conflates final causality with immanent end-directedness. Final causality is plainly present in artifacts as well, something which Feser terms “extrinsic teleology.”

⁹ *ST I* 2.3. Leszek Figurski, like Feser, maintains that the first part of the Fifth Way “concludes that the only sufficient explanation for the regular activity of non-cognitive natural bodies is some built-in intrinsic orientation of their natures, as agents, toward their proper ends” (*Finality and Intelligence* [Wydawnictwo Bezkręsy Wiedzy, 2014], p. 123). But again, this view does not fit with the way the Fifth Way is worded.

¹⁰ Aquinas uses the arrow at least a dozen times to illustrate the need for a thing lacking knowledge that tends to an end to be directed by a knowing being. This can be verified by searching “sagitta” in the *Index Thomisticus*. To give one example: “It is necessary that

the conclusion of the first syllogism, which as we have seen makes no reference to whether the tendency to an end is from an intrinsic or extrinsic principle. We see then that Aquinas does not rely on the difference as to how natural and artificial things tend to their ends in concluding to *aliquid intelligens* in the Fifth Way.¹¹

Let us now consider Paley's argument which I think can be fairly paraphrased thus;

All things that have a multiplicity of parts ordered to achieve a goal are things that have an intelligent being as cause of their order.

The parts of organisms, such as the eye, are things that have a multiplicity of parts ordered to achieve a goal.

The parts of organisms, such as the eye, are things that have an intelligent being as cause of their order.

I justify the above paraphrase in the following manner. First, Paley thinks that what is true in the case of a watch is universally true:

[W]hen 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, e.g. that they are so formed and adjusted as to produce motion, and that motion so regulated as to point out the hour of the day. . . . This mechanism being observed . . . and understood,

the first agent, however, be an agent through intellect and will: for those things which lack intellect act for an end as directed to the end by another. Which certainly is manifest in artificial things: for the motion of the arrow to a determinate target is from the direction of the archer. It is necessary, however, that the like is found in natural things" (*Summa contra Gentiles*, Bk. 2, c. 23). Aquinas would seem to favor this example because it parallels the action for an end of simple natural bodies, and not just complex ones, e.g., a stone tending downwards. Perhaps he also favors it because "tendere" is a verb typically used with "arrow," as in "tendere sagittas arcu," in which case it means "to shoot;" it also means "to direct one's course towards," "to go towards," and "to be inclined" (*Cassell's Latin Dictionary*, revised by J. R. V. Marchant and Joseph F. Charles [New York: Fund & Wagnalls, 1953]).

¹¹ Note that Aquinas gives an argument very similar to the Fifth Way in the *Summa contra Gentiles* (III 63) in which he concludes that God governs the world by providence; neither argument makes reference to "immanent teleology." Note also that Aquinas gives an argument for "some intellect" in *De Veritate*, q. 2, a. 3 that is based on natural appetite and not generically on tendency to an end, and for this reason seems like the sort of argument Feser takes the Fifth Way to be. It would be worthwhile to compare these arguments. The *De Veritate* argument reads: "For, it is necessary that everything that naturally tends to some other thing has this from some being directing it to [this] end; otherwise it would tend to it by chance. We find, however, in natural things a natural appetite, by which each and every one of them tends to its end; whence it is necessary to posit some intellect above all natural things which will have ordered natural things to their ends, and placed in them the natural inclination or appetite." It would also be worth further investigating how the Fifth Way, which is taken "from the governance of things," relates to the question of *ST I*, q. 103, a. 1, "Whether the World is Governed by Someone." In the response to objection three, Aquinas introduces the distinction of how artificial things receive their ordering to an end and how natural ones do. I am not denying the importance of this distinction in understanding God's governance, but am simply maintaining that it plays no role in the Fifth Way.

the inference, we think, is inevitable... that there must have existed at some time and at some place or other, an artificer... who comprehended its construction and designed its use.¹²

In other words, anything in which we perceive “several parts are framed and put together for a purpose” is something that we immediately recognize to have an intelligent being as the cause of its order.

Paley then goes on to apply this general principle to things found in nature:

Every indication of contrivance, every manifestation of design, which existed in the watch, exists in the works of nature, with the difference, on the side of nature being greater and more... [The contrivances of nature]... in a multitude of cases, are not less evidently mechanical, not less evidently contrivances, not less evidently accommodated to their end... than are the most perfect productions of human ingenuity.¹³

When Paley says that every manifestation of design that exists in the watch exists in the works of nature, it is obvious that he is not talking about the design specific to a watch (e.g., that it has a knob that allows one to set the time), but about the definitional characteristics of design, i.e., the presence of a multiplicity of parts ordered to achieve a goal. When he says that the contrivances of nature *in most cases* are not less evidently mechanical or accommodated to their end than productions of human ingenuity, he is simply noting that in some cases we do not know the end that certain parts of organisms are ordered to, and even when we do, we do not always know how they are ordered to achieving these ends.¹⁴ It remains the case that Paley firmly maintains that certain parts of organisms, such as the eye, are things that have a multiplicity of parts ordered to achieve a goal.

¹² See William Paley, *Natural Theology*, (1802) (Houston: St. Thomas Press, 1972), pp. 1-2.

¹³ Paley, *Natural Theology*, pp. 14-15.

¹⁴ See Paley, *Natural Theology*, pp. 42-43: “There may be also parts of plants and animals... of which in some instances, the operation, in others, the use is unknown. These form different cases; for the operation may be unknown, yet the use be certain. Thus it is with the lungs of animals. It does not, I think, appear, that we are acquainted with the action of the air upon the blood, or in what manner that action is communicated by the lungs; yet we find that a very short suspension of their office destroys the life of the animal. In this case, therefore, we may be said to know the use, nay we experience the necessity, of the organ, though we be ignorant of its operation. . . . There may possibly also be some few examples of the second class, in which not only the operation is unknown, but in which experiment may seem to prove that the part is not necessary. . . . This is said to be the case of the spleen; which has been extracted from dogs, without any sensible injury to their vital function.”

Many claim that Paley's argument is an inductive argument rather than a deductive argument.¹⁵ However, if it is justifiably framed as a deductive argument, doing so is desirable insofar as one ought to always present an argument in its strongest form. Later I will come back and provide further support for formulating Paley's argument as a deductive argument.

There is no doubt that Paley makes reference to "mechanisms" as existing in both art and nature. But is the idea of "extrinsic teleology" essential to Paley's argument? I maintain that it is not. This is plain if one simply examines the premises and conclusion of his design argument, none of which make any reference to extrinsic teleology. Moreover, extrinsic teleology does not follow as a necessary consequence from the conclusion of the design argument; one cannot deduce from his conclusion "the parts of organisms, such as the eye, are things that have an intelligent being as cause of their order" whether the intelligent being so orders parts to their ends by imposing the ordering extrinsically or intrinsically.

Furthermore, while in some cases Paley speaks of mechanisms, in other places he simply speaks in terms of parts being accommodated to a goal, means being ordered to an end, and this is what is essential to his argument. Take for example what Paley says about fish eyes:

They [the eye and the telescope] are made upon the same principles; both being adjusted to the laws by which the transmission and refraction of rays of light are regulated. . . . For instance; these laws require, in order to produce the same effect, that the rays of light, in passing from water into the eye, should be refracted by a more convex surface, than when it passes out of air into the eye. Accordingly we find, that the eye of a fish, in that part of it called the crystalline lense, is much rounder than the eye of terrestrial animals. What plainer manifestation of design can there be than this difference? What could a mathematical instrument-maker have done more, to shew his knowledge of his principle, his application of that knowledge, his suiting of his means to his end . . . ?¹⁶

Paley is not saying the fish eye requires an intelligent cause to explain it because it has an ordering to an end imposed from without rather than from within, but rather because its lens is adjusted in such a manner as to allow proper focus. Indeed, Paley explicitly states as universally true: "Arrangement, disposition of parts, subserviency

¹⁵ See, for example, Jonah Schupbach and Graham Oppy's articles in *Philosophia Christi* on whether Paley's argument is deductive or not: Jonah Schupbach, "Paley's Inductive Inference to Design: A Response to Graham Oppy", *Philosophia Christi*, 7 (2005), pp. 491-502 and Graham Oppy, "Paley's Argument Revisited: Reply to Schupbach", *Philosophia Christi*, 10, 2 (2008), pp. 443-50.

¹⁶ Paley, *Natural Theology*, pp. 15-16.

of means to end, relation of instruments to an [sic] use, imply the presence of intelligence and mind.”¹⁷ This notion, and not the notion of finality imposed from without, is what Paley’s argument depends on.

The reason that Paley speaks so often in terms of mechanisms is because he regards the ordering to an end of the parts of natural things to be unambiguous when we can directly compare it to a work of human art, and we are more able to make such comparisons in the case of gross structure than at the more subtle chemical level, given that we have an understanding of basic physical laws, whereas our knowledge of chemistry is more limited. This can be seen from the following two excerpts:

[T]he different parts of the animal frame may be classed and distributed, according to the degree of exactness with which we can compare them with works of art . . . the mechanical part of our frame, or those in which this comparison is most complete, although constituting, probably, the coarsest portions of nature’s workmanship, are the properest [sic] to be alleged as proofs and specimens of design.¹⁸

There is what may be called the *chymical* part of our frame; of which by reason of the imperfection of our chymistry, we can attain to no distinct knowledge; I mean, not to a knowledge, either in degree or kind, similar to that which we possess of the mechanical part of our frame. It does not, therefore, afford the same species of argument as that which mechanism affords; and yet it may afford an argument in a high degree satisfactory.¹⁹

Paley’s discussion of mechanism does not seek to determine whether the ordering to an end found in natural things is imposed from without or instilled within, but rather to establish that one can know such ordering with certitude:

I contend, therefore, that there is mechanism in animals; that this mechanism is as properly such, as it is in machines made by art; that this mechanism is intelligible and certain; that it is not the less so, because it often begins or terminates with something that is not mechanical; that whenever it is intelligible and certain, it demonstrates

¹⁷ Paley, *Natural Theology*, p. 9.

¹⁸ Paley, *Natural Theology*, p. 66.

¹⁹ Paley, *Natural Theology*, p. 60. See also, *ibid.*, p. 57: “IT is not that *every* part of an animal or vegetable . . . is not constructed with a view to its proper end and purpose, according to the laws belonging to, and governing the substance or the action made use of in that part; . . . but it is because these laws themselves are not in all cases equally understood; or, what amounts to nearly the same thing, are not equally exemplified in more simple processes, and more simple machines; that we lay down the distinction, here proposed, between the mechanical parts and other parts of animals and vegetables.”

intention and contrivance, as well in the works of nature as in those of art; and that it is the best demonstration which either an afford.²⁰

2. Is Paley's Argument an Argument by Analogy?

Yet another common objection to Paley's argument can be readily addressed at this point, namely, the claim that his argument is an argument by analogy, and therefore its conclusion is only probable. There is no doubt that Paley's preferred examples of design in nature are ones where there is a direct comparison with human artifacts:

I know no better method of introducing so large a subject, than that of comparing a single thing with a single thing; an eye, for example, with a telescope. As far as the examination of the instrument goes, there is precisely the same proof that the eye was made for vision, as there is that the telescope was made for assisting it. They are made upon the same principles; both being adjusted to the laws by which the transmission and refraction of rays of light are regulated.²¹

And Paley himself speaks of an analogy between eye and telescope.²² However, this does not make his argument an argument by analogy. Here is an example to illustrate how an argument by analogy works: The war with the Thebans was a war with a neighbor, and it was disastrous. The proposed war with the Milesians is a war with a neighbor, and therefore is likely to be disastrous.²³ If Paley was arguing by analogy, he would reason in this manner: The telescope is ordered and adjusted in a way that allows it to focus an image, and this ordering is explained by an intelligent being. The eye is similarly ordered and adjusted in a way that allows it to focus an image, and therefore it is likely that its ordering is explained by an intelligent being. Paley's argument, however, is based on a universal principle which he holds is evident and certain, i.e., everything that has parts ordered and adjusted to achieve a goal is a thing that has an intelligent being as cause of this order. The point of his comparing eye with telescope is to make it as obvious as possible that the eye is an instance of something that manifests order and adjustment to achieve a goal. Aquinas would find this way of proceeding reasonable, insofar as he

²⁰ Paley, *Natural Theology*, p. 60.

²¹ Paley, *Natural Theology*, p. 14.

²² See Paley, *Natural Theology*, p. 15: "To some it may appear a difference sufficient to destroy all similitude between the eye and the telescope, that the one is a perceiving organ, the other an unperceiving instrument. The fact is, that they are both instruments. And, as to the mechanism, at least as to mechanism being employed, and even as to the kind of it, this circumstance varies not the analogy at all."

²³ For a more exact account of the argument by analogy (which Aristotle calls the argument by example), see Aristotle, *Prior Analytics*, Bk. II, chap. 24.

holds that: “It is proved that natural bodies move and act for an end, granted they do not know the end, from this that what is the best always or frequently happens in their case; *if their motions and actions resulted from art, they would not come about differently*” (emphasis added).²⁴ In other words, the means employed by art to achieve such ends would be the same or similar to those that nature employs.

It is sometimes also claimed that Paley’s argument is an argument by analogy on the grounds that it involves comparing a watch with organic parts. Paley, however, simply uses a watch as illustrative of the universal principle that things whose parts are ordered to achieve a goal are a work of intelligence, just as Aquinas uses the arrow-archer example as illustrative of the universal principle that “everything which tends to an end, lacking knowledge, is a thing that is directed to an end by some knowing and intelligent being, as an arrow by an archer.” Neither Aquinas nor Paley are proposing inductive arguments, such as: a watch is a thing whose parts are ordered to an end and it is the work of an intelligent being, a car is a things whose parts are ordered to an end, and it is the work of an intelligent being, and therefore, all things whose parts are ordered to an end are the work of an intelligent being. Their examples point not to inductive *argument* where a general conclusion is drawn based on the enumeration of a certain number of particulars leaving the possibility that a contrary particular has been overlooked, but to the sort of induction spoken about by Aristotle in the final chapter of the *Posterior Analytics*: “Clearly then it must be by induction that we acquire knowledge of the primary premisses, because this is also the way in which universals are conveyed to us by sense perception.”²⁵ For example, from sensed examples of wholes and parts, we grasp the universal concepts whole and part, and then from these concepts we immediately see to be true the universal proposition “a whole is greater than its parts.” Similarly, examples such as the archer-arrow and the watchmaker-watch lead us to form a confused notion of practical intelligence and allow us to eventually arrive at the definition of practical intelligence, from which we can immediately see the truth of the universal principle “things that lack knowledge must be ordered to their ends by an intelligent being.” I agree that the case of

²⁴ *Summa contra Gentiles*, Bk. 3, c. 64 (“non aliter fierent si fierent per artem”).

²⁵ Aristotle, *Posterior Analytics*, trans. Hugh Tredennick (Cambridge Massachusetts: Harvard University Press, 1976), 100b3-4; I very slightly altered this translation. Aquinas is in agreement with Aristotle on these points; see *In Libros Posterior Analyticorum Expositio*, ed. Raymundi M. Spiazzi, O.P. (Turin: Marietti, 1964), #595-96: “He [Aristotle] manifests what he said . . . as to this that the universal is grasped from the experience of singulars. . . . Therefore, because we grasp knowledge of universals from singulars, he concludes that it is manifest that it is necessary that the first universal principles are known through induction. For in this manner, namely, through the way of induction, sense causes the universal in the soul, insofar as all singulars are carefully regarded.”

practical intelligence is not so straightforward as the case of whole and part, for sensed examples make the definitions of whole and part immediately clear, but do not seem to do so in the case of the definition of practical intelligence, since people disagree about what practical intelligence is and whether animals possess it; in addition, some deny that ordering to an end requires an intelligent being to explain it, so the principle does not seem to be self-evident.²⁶ Be this as it may, the absence of inductive arguments in both Aquinas and Paley, and indeed the absence of argument of any sort for the major premises of both Aquinas's second syllogism and of Paley's argument suggest that they hold these premises to be self-evident, something which gives us reason to consider whether this might in fact be the case.²⁷ (In the next section I will offer an alternative to this thesis.)

3. An Important Similarity between Aquinas's and Paley's Arguments

In order to see how close Paley's argument is to Aquinas's, we need to first consider some passages where Aquinas speaks about intelligence:

However, in order for the action of the agent to be suited to the end, it is necessary for it to be adapted and proportioned to it, which cannot come about except from some intellect which knows the end and the notion of the end and the proportion of the end to that which is to the end; otherwise the suitability of the action for the end would be chance. But the intellect ordering things to the end is sometimes conjoined to the agent... sometimes separate, as is manifest in the case of the arrow.²⁸

Aquinas repeats the same teaching when discussing divine providence.

This, however, cannot be: for those things which happen by chance happen in the fewer number of cases; however, we see that suitability

²⁶ Another question is: to what extent can the relationship of means to ends be sensed? It seems that chimpanzees that fish for termites sense that this twig is too big to fit the hole and that one is the right size.

²⁷ Perhaps the proposition that things that lack knowledge must be ordered to their ends by an intelligent being is not self-evident to just anyone, but is "self-evident only to the wise;" see *Summa Theologiae*, I-II 94.2. For a brief discussion of whether the major premise of the second syllogism of Aquinas's Fifth Way is self-evident, see Marie I. George, "On the Occasion of Darwin's Bicentennial: Finally Time to Retire the Fifth Way?", *Proceedings of the American Catholic Philosophical Association*, 83 (2009), pp. 216-18.

²⁸ *Quaestiones Disputatae de Potentia*, q. 1, a. 5.

(convenientias) and advantageousness (utilitates) happen in the works of nature always or in the greater number of cases. Whence, they cannot happen by chance; and so therefore it is necessary that they proceed from a tending to an end. But that which lacks intellect or knowledge is not able to directly tend to an end unless the end is fixed for it through some knowledge, and it is directed to it; whence it is necessary that since natural things lack knowledge that some intellect pre-exists which orders natural things to an end in the manner [ad modum] in which an archer gives the arrow a fixed motion so that it tends to a determinate end. . . .²⁹

In other words, the only adequate explanation of the ordering of means to an end is intellect. This is exactly what Paley maintains: “Arrangement, disposition of parts, subserviency of means to end, relation of instruments to an [sic] use, imply the presence of intelligence and mind.”³⁰

Feser fails to see that “in the manner that” [ad modum] that “an archer gives the arrow a fixed motion so that it tends to a determinate end” can refer to two different things, namely, whether the archer does so by proportioning means to an end or whether the archer does so by imparting a tendency to the arrow that the arrow of itself does not have. The former is relevant to the Fifth Way and to Paley’s argument from design; the latter is not. The failure to see this results in assertions such as: “the anthropomorphism implicit in Paley’s conception of God is one reason Thomists are bound to object to Paley’s argument,”³¹ the said anthropomorphism consisting in “Paley’s designer imparts teleology the way human designers do, by imposing on raw materials a function they have no inherent tendency to serve.”³² Paley may in fact have this notion of God; however, as was made plain in the previous section, it is not implicit in his design argument.

It seems that for Aquinas the very definition of *practical* intelligence is the ability to grasp an end as an end and to proportion means to it or, at very least, he sees this to be an essential property of practical intelligence. Paley makes explicit reference to this definition or property in his design argument, albeit in a somewhat more contracted manner, when he affirms that we inevitably infer the existence of an artificer, a being endowed with comprehension, when we see several parts framed and put together for a purpose.³³ Does Aquinas make

²⁹ *Quaestiones Disputatae de Veritate*, q. 5, a. 2.

³⁰ See Paley, *Natural Theology*, p. 9.

³¹ Feser, “Between Aristotle and William Paley,” p. 743.

³² Feser, “Between Aristotle and William Paley,” p. 742.

³³ I have paraphrased the following passage from Paley: “[W]hen 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, e.g. that they are so formed and adjusted as to produce motion, and that motion so regulated as to point out the hour of the day. . . . This

explicit reference to the definition of practical intelligence in the Fifth Way? He does not. This leads one to wonder whether Aquinas thinks there is a need to reason to the major premise of the second syllogism in the Fifth Way in the following manner: “Everything which tends to an end, lacking knowledge, is a thing that is directed by some knowing and intelligent being” *because* only intelligent beings can grasp an end as end and proportion means to it. There are two positions one might adopt here. One could take the position that Aquinas would not see an independent reason being offered here for the premise; rather what intelligence is is simply being spelled out. It would be like saying: all human beings are capable (at least in principle) of appreciating a joke because all human beings are rational animals; the second proposition simply replaces a term with its definition. Thus, one might hold that Aquinas implicitly assumes in the major premise of the second syllogism the definition (or property) of practical intelligence that he habitually gives and he takes the major premise of the second syllogism to be self-evident. Alternately, one might hold that Aquinas would maintain that this premise needs to be reasoned to using the definition or property of practical intelligence. In either case, the Fifth Way is seen to rely on the same basic understanding of practical intelligence that Paley’s argument explicitly relies on. This fundamental and important similarity between the two arguments is typically overlooked.

In light of the above, it is not surprising that Aquinas sees the example of a clock—an obvious equivalent of Paley’s watch—as equivalent to the arrow example he frequently uses to illustrate the principle that the tending to an end of non-intelligent beings must ultimately be reduced to beings that are intelligent:

It ought to be said, as is said in III *Phys*. “Motion is the act of the mobile [proceeding] from the mover.” And therefore the virtue of the mover appears in the motion of the mobile. And on account of this, the order of the reason of the mover appears in all things which are moved by reason, granted the thing itself which is moved by reason may not have reason; for thus does the arrow tend directly to the target from the motion of the archer, as if it itself had the reason of the one directing it. And the same appears in the motion of clocks, and of all works of human ingenuity, which come to be by art. However, just as artifacts are compared to human art, so also all natural things are compared to divine art. And therefore order appears in those things which move according to nature, just as in those things which move through reason, as is said in II *Phys*.³⁴

mechanism being observed . . . and understood, the inference, we think, is inevitable . . . that there must have existed at some time and at some place or other, an artificer . . . who comprehended its construction and designed its use” (*Natural Theology*, pp. 2-3)

³⁴ *ST* I-II, q. 13, a. 2, ad 3.

Aquinas has no qualms about drawing a parallel between artifacts and natural things insofar as the ordering to an end in both needs to be traced back to intelligence. Indeed, over and over he refers to God as artificer (*artifex*): “It is impossible that something would be made in vain by a wise and omnipotent and best artificer.”³⁵ “The highest perfection ought not be absent from the work made by an artificer good in the highest degree.”³⁶ In addition, Aquinas makes many references to “*ars divina*,” e.g., “All creatures are compared to God as artificial things (*artificiata*) to an artificer . . . Whence, the whole of nature is as a certain artificial work (*artificiatum*) of divine art.”³⁷ These views concord with what is said in the book of Wisdom: “Yes, naturally stupid are all men who have not known God and who . . . by studying the works, have failed to recognize the Artificer” (Ws. 13:1).³⁸

Such statements do not commit Aquinas to affirming that God stands to creation as an artificer to artifacts in every respect. The comparison stands as to the need for an intelligent being to account for the ordering to an end of both. However, the manner in which the intelligent being does the ordering considered from the point of view of its mind (be it discursively or otherwise) is a separate question, and the manner in which this ordering is realized in the work of intelligence (be it as imposed from without or instilled in it) is yet another question (as was noted earlier). Feser maintains that Paley “at least by implication” maintains that the intelligent being concluded to designs things in the discursive manner that we humans do, but “with massively greater facility.”³⁹ Regardless of whether or not Paley thinks this, it does not follow from anything that he states in his argument from design, and thus in no way weighs against it. The simple fact that Paley “model[s] his designer on human designers” does not substantiate Feser’s claim. Both Aquinas and Paley get their notion of practical intelligence as the ability to grasp an end as end and order means to it from *reflection on human intelligence and its artworks*, which is hardly surprising as these are plainly what are best known to us. Perhaps Aquinas and Paley part ways as to how the divine mind works; however, this is a question separate from and

³⁵ *Scriptum super Sententiis*, Bk. 3, d. 20, q. 1, a. 1, qc. 3, s.c. 1.

³⁶ *Summa contra Gentiles*, Bk. 2, c. 45.

³⁷ *Ibid.*, Bk. 3, c. 100.

³⁸ The Vulgate uses the word “artifex” in Ws. 13.1.

³⁹ Feser, “Between Aristotle and William Paley,” p. 742. See also Feser, blog posting, <http://edwardfeser.blogspot.com/2011/03/thomism-versus-design-argument.html>: “No one denies that both Aquinas and Paley argue for an intelligent cause of the order in the world. What A-T philosophers (other than George) object to is the way Paley argues for this conclusion (a way which is incompatible with A-T metaphysics) and the *anthropomorphic construal* of “intelligence” implicit in his position (which is incompatible with classical theism).”

subordinate to the question of the existence of an intelligent being responsible for the ordering to an end in natural things.

4. Some Differences in the Two Arguments

This is not to deny that there are differences in the two arguments. The major premise of Paley's argument is restricted to things that have different parts. From the very outset, Paley excludes from his argument natural bodies that are simple, such as rocks, lacking or at least apparently lacking as they do "several parts framed and put together for a purpose."⁴⁰ And later in his work he notes that his argument does not apply to minerals and the heavenly bodies because they appear to lack differentiated parts.⁴¹ The major premise of Aquinas's second syllogism is less restrictive, applying, as it does, to all natural bodies. Aquinas's conclusion, accordingly, applies to all natural bodies. Given that all natural things (at least in the sense of substance) are natural bodies,⁴² the intelligent being concluded to is a cause vis-à-vis all natural things: "Therefore, there is something intelligent, by which all natural things are ordered to an end." Paley's argument or arguments are limited to concluding to an intelligent being responsible for the ordering to an end found in a specific complex natural feature, such as the eye.

Would Aquinas reject Paley's more restricted argument? First, Aquinas would see the major premise of his second syllogism to stand to Paley's major premise as a universal proposition to a particular one, i.e., "Everything which tends to an end, lacking knowledge, is a thing that is directed [to an end] by some knowing and intelligent being" includes the proposition that complex things lacking knowledge, but ordered to an end, are ordered by an intelligent being. Secondly, Aquinas, like Paley, acknowledges that there is an ordering of means to an end in the complex organs of organisms:

⁴⁰ See Paley, *Natural Theology*, pp. 1-2.

⁴¹ See Paley, *Natural Theology*, c. 21 ("The Elements"), p. 280: "When we come to the elements, we take leave of our mechanics; because we come to those things, of the organization of which, if they be organized we are confessedly ignorant." Paley also notes in the case of the heavenly bodies: "We are destitute of the means of examining the constitution of the heavenly bodies. The very simplicity of their appearance is against them. We see nothing, but bright points, luminous circles, or the phases of spheres reflecting the light which falls upon them. Now we deduce design from relation, aptitude, and correspondence of *parts*. Some degree therefore of *complexity* is necessary to render a subject fit for this species of argument" (p. 287).

⁴² This point perhaps deserves further consideration; however, an exhaustive examination of the Fifth Way falls outside my main purpose. An animal is a natural body that does not lack knowledge; however, its vegetative activities go on apart from its knowledge (see *De Potentia*, q. 1, a. 5), and same for its falling downwards.

[T]hose that held that nature did not act for the sake of something, tried to confirm this by removing that from which nature chiefly appears to act for the sake of something. This, however, is what chiefly shows that nature acts for the sake of something: that from the operation of nature something is always found to become the best and most advantageous that it can be: as the foot comes to be according to nature in a manner such that it is apt for walking; whence if it recedes from its natural disposition, it is not apt for this use; and similarly with the rest [of things that come to be by nature].⁴³

Thus, Aquinas would agree that Paley's design argument allows one to correctly conclude from the complex order of the parts in the foot which allows it to achieve the end of locomotion that there is *aliquid intelligens* responsible for this order.

This conclusion counters Feser's claim that Paley's argument is "a cumulative and probabilistic 'argument to the best explanation.'" Further examination of this claim will confirm that it should be rejected. Feser's asserts that "Paley thinks the probability of design so high that he speaks confidently of 'the necessity of an intelligent Creator.'"⁴⁴ Yet aside from an argument based on Feser's claim regarding Paley's "extrinsic teleology" (which we have seen is not essential to Paley's design argument), the only thing Feser offers in support of this position is a footnote which points to occasional passages where Paley speaks in terms of probability and which then refers us to another author.⁴⁵ But this hardly shows that Paley thinks he is offering an argument that is only probable. It is quite clear that he thinks it to be certain, at least in the case of the eye:

⁴³ *In Octo Libros de Physico Auditu Commentaria*, Bk. 2, lec. 12, #491 (Pirota edition). See also *De Potentia*, q. 2, a. 3, ad 5: "Whence the Philosophers were not led to posit the work of nature to be a work of intelligence from the operations which belong to the hot and the cold in virtue of themselves; because those positing natural things to happen from the necessity of the matter were reducing all works of nature also into these [causes]. They were led, however, from those operations for which the power of hot and cold and things of this sort cannot suffice; as from the *members in the animal body* being ordered in such a way that the nature [of the animal] was preserved" (emphasis added). See also *Disputed Question De Anima*, a. 10, ad 17. Some object that the Fifth Way does not embrace design since the Fifth Way is concerned with the "governance of things" and not their creation or production. Space does not allow me to fully respond to this objection. I concede it, if governance is understood in the narrow sense which distinguishes it from creation (see *De veritate*, q. 5 a. 8, ad 2), but not if it is understood in the broad sense, such as is used in regard to divine justice (see *ST I*, q. 21, a. 1 and ad 3). Footed animals' living bodies are natural bodies, and during development they regularly produce feet composed in a manner that makes them suitable for walking; thus, the footed animal body is a particular instance of what the first syllogism refers to in general terms. This gives reason us to take governance in the broad sense.

⁴⁴ Feser, "Between Aristotle and William Paley," p. 723.

⁴⁵ See Feser, "Between Aristotle and William Paley," p. 723 and p. 723, note 30.

True fortitude of understanding consists in not suffering what we know to be disturbed by what we do not know. If we perceive an useful end, and means adapted to that end, we perceive enough for our conclusion. If these things be clear, no matter what is obscure. The argument is finished. For instance; if the utility of vision to the animal which enjoys it, and the adaptation of the *eye* to this office, be evident and certain (and I can mention nothing which is more so), ought it to prejudice the inference which we draw from these premises, that we cannot explain the use of the spleen?⁴⁶

As to the cumulative nature of Paley's argument which Feser refers to, here is what Paley himself says:

Were there no example in the world of contrivance except that of the eye, it would be alone sufficient to support the conclusion which we draw from it, as to the necessity of an intelligent Creator. . . .

The proof is not a conclusion, which lies at the end of a chain of reasoning, of which chain each instance of contrivance is only a link, and of which, if one link fail, the whole falls; but it is an argument separately supplied by every separate example. An error in stating an example affects only the example. The argument is cumulative in the fullest sense of that term. The eye proves it without the ear; the ear without the eye. The proof in each example is complete; for when the design of the part, and the conduciveness of its structure to that design, is shewn, the mind may set itself at rest: no future consideration can detract any thing from the force of the example.⁴⁷

Paley thinks that not just one proof, but many proofs, can be given for the existence of an intelligent being. He recognizes here and elsewhere that one may give a mistaken example of a multiplicity of parts ordered to achieve a goal, in which case one erroneously infers the existence of an intelligent being. However, he thinks that there are many cases where such ordering can be known with certitude, and that the proofs based on these cases can be regarded as a cumulative argument insofar as one can be added to another, but not as if each were a necessary part of that argument which if absent would weaken the conclusion. Paley is not proposing "an argument to the best explanation," but many independent proofs of the same conclusion.

If we look again at Paley's argument to consider very briefly what we ourselves think of its certitude, we see that the syllogism is valid, and the major premise is no more questionable than the major Aquinas uses in his second syllogism. A question I have concerns the type evidence proposed to establish that a given feature does in

⁴⁶ Paley, *Natural Theology*, p. 52. That he thinks that his argument concludes with certitude and not with probability can also be seen from his earlier remark in regard to a watch: "Sixthly, he would be surprised to hear, that the mechanism of the watch was no proof of contrivance, only a motive to induce the mind to think so" (*ibid.*, p. 5).

⁴⁷ Paley, *Natural Theology*, pp. 55-56.

fact have parts ordered to achieve a goal. For example, in the case of the eye, Paley affirms:

[F]or the production of the image, these [the eye, the telescope, and the camera obscura] are instruments of the same kind. The end is the same; the means are the same. The purpose in both is alike; the contrivance for accomplishing that purpose is in both alike. The lenses of the telescope, and the humors of the eye bear a complete resemblance to one another, in their figure, their position, and in their power over the rays of light, viz. in bringing each pencil [of light] to a point at the right distance from the lense.⁴⁸

The evidence Paley relies on here is the fruit of scientific investigation rather than the more general and surer evidence of common experience. And this raises a question about his argument(s) certitude. We are taught in school that there is a lens in the eye, but how many of us have actually seen one? While I think my belief that the eye has a lens is quite reasonable, it is still a belief. Also, not everyone has experience with artificial lenses, and so not everyone has even a basic understanding of how they work. One might argue then that Paley should restrict his argument to examples that do not require scientific experience to be known, examples such as the one Aquinas gives of the foot which “reced[ing] from its natural disposition, is not apt [for walking],” or perhaps better yet the hand, insofar as the general ordering of the parts is patently obvious, e.g., the thumb is opposed to the other fingers in order to make grasping things possible (unlike our toes). Further examination of Paley’s argument on this point is plainly in order.

5. Is Paley’s Argument to be Rejected on the Same Grounds as Are Intelligent Design Arguments?

Paley’s argument is sometimes assimilated to the arguments of intelligent design (ID) thinkers,⁴⁹ and is rejected on the same grounds as they are, i.e., as being an argument from ignorance.⁵⁰ It is true that Paley speaks in a manner similar to ID thinkers⁵¹ on at least

⁴⁸ Paley, *Natural Theology*, p. 16.

⁴⁹ See Glenn Branch, “Did Paley Anticipate Behe?,” posted on September 17, 2013, <http://ncse.com/blog/2013/09/did-paley-anticipate-behe-0015009>: “Anyhow, it’s not surprising that readers were quick to associate Behe’s argument with Paley’s. Taking a case practically at random, in 1998, the biochemist Bruce H. Weber wrote, ‘Michael Behe restates in modern biochemical terms William Paley’s argument that there is an irreducible functional complexity to living beings that suggests the action of a designer-creator.’”

⁵⁰ See Christopher Martin, *Thomas Aquinas: God and Explanations* (Edinburgh: Edinburgh University Press, 1997), p. 182.

⁵¹ Paley, *Natural Theology*, 2. See Michael Behe, *Darwin’s Black Box* (New York: The Free Press, 1996), p. 39: “By *irreducibly complex* I mean a single system composed of

one occasion: “if the different parts had been differently shaped from what they are, of a different size from what they are, or placed after any other manner, or in any other order, than that in which they are placed, either no motion at all would have been carried on in the machine, or none which would have answered the use that is now served by it.”⁵² However, this claim does not enter into his argument from design. Moreover, unlike the ID thinkers, Paley sees that the causes immediately responsible for the production of something whose parts are ordered to achieve a goal need not also be responsible for this very ordering. This can be seen from the conclusion he draws from his quaint comparison of reproduction in organisms to the imaginary case of a watch producing another watch:

Though it be now no longer probable, that the individual watch which our observer had found, was made immediately by the hand of an artificer, yet doth not this alteration in any wise affect the inference, that an artificer had been originally employed and concerned in the production. The argument from design remains as it was. Marks of design and contrivance are no more accounted for than before.⁵³

To express the same thought using a biological example: canine parents are responsible for the production of their pups, but they are not responsible for the ordering to an end found in the parts of these pups. ID thinkers fail to make this distinction, as their reasoning is based on the false dichotomy that either blind natural causes produce a result or intelligent ones do so.⁵⁴ Paley sees that the fact that blind natural causes produce a result does not preclude that an intelligent cause may also be required to explain it. His argument is not concerned with the proximate causes of the production of things

several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning. An irreducibly complex system cannot be produced directly (that is, by continuously improving the initial function, which continues to work by the same mechanism) by slight, successive modifications of a precursor system”

⁵² Paley, *Natural Theology*, p. 2. Note that Paley later observes that things can be more or less well-designed, and this shows that he is not wedded to the idea that there could not be differences in the parts as to shape, size, or ordering in things that are designed to serve a given purpose: “Neither, secondly, would it invalidate our conclusion, that the watch sometimes went wrong, or that it seldom went exactly right. . . . It is not necessary that a machine be perfect, in order to shew with what design it was made” (p. 3).

⁵³ Paley, *Natural Theology*, 8-9.

⁵⁴ See Behe, *Darwin’s Black Box*, pp. 203-204: “If a biological structure can be explained in terms of those natural laws [biological reproduction, mutation, and natural selection], then we cannot conclude that it was designed. Throughout this book, however, I have shown why many biochemical systems cannot be built up by natural selection working on mutations.”

manifesting design, but with the need to explain the ordering of the parts to an end in them: “This mechanism being observed... and understood, the inference, we think, is inevitable... that *there must have existed at some time and at some place or other, an artificer... who comprehended its construction and designed its use*” (emphasis added).⁵⁵ It is easy to see in the case of human art that the one who designs something need not be the one who executes the design, e.g., an architect as such does not do construction work and may even be dead before his plan is executed. Paley would not be fazed if he were to become acquainted with evolutionary explanations of how organic features arose, for he maintains that while blind causes can explain the production of an effect which is ordered, they cannot explain the order in the effect.

ID arguments are critiqued on the grounds that the biologists’ current ignorance of how certain biological features have arisen does not establish that these features arose through non-natural processes. Paley, however, is not arguing on the basis of what we do not know (e.g., how certain features, such as the flagellum, originated). He bases himself on what we do know: that order and adjustment of parts to achieve goals is present in living things. Thus, his design argument, unlike ID arguments, would be unaffected if scientists came up with explanations in terms of natural causes for how biological features evolved.⁵⁶

6. Humean Objections to Paley’s Argument

Paley’s argument is also sometimes faulted on the grounds that it fails to provide an answer to questions concerning the nature of the intelligence that is concluded to. This type of objection, which we see repeated over and over in the literature, traces back to Hume, e.g., “And what shadow of an argument, continued PHILO, can you produce, from your hypothesis, to prove the unity of the DEITY? A great number of men join in building a house or a ship... why may not several deities combine in framing a world?”⁵⁷ Few seem to have noticed the irrelevance of such objections. A single argument

⁵⁵ See Paley, *Natural Theology*, pp. 1-2.

⁵⁶ Paley’s argument is sometimes criticized as being a god-of-the-gaps argument: “Asa Gray... was able to leave behind Paley’s view that on the ‘God-of-the-gaps’ is worthy of being recognized in nature” (Bethany Solleder, “The Darwin-Gray Exchange”, *Theology and Science*, 8, 4 (November 2010), p. 425). Paley’s argument from design, again, is not based in what may turn out to be gaps in our knowledge concerning the ability of natural causes to produce certain effects, but rather on the notion that such causes cannot account for the ordering to an end we observe in the features of living things.

⁵⁷ Hume, *Dialogues concerning Natural Religion* in *Hume, Selections*, ed. Charles W. Hendel (New York: Charles Scribner’s Sons, 1927), 330.

obviously has one conclusion and not two, and it thereby answers one question. There is nothing problematic at all about Paley's argument answering one question (does God exist?) and not answering other questions concerning the divine nature, e.g., is God one? Is God a material being? Is God omniscient? Nor does the fact that no further conclusion is derived from it say anything about its soundness. It would be absurd to say that Euclidian proofs whose conclusions are never used in later proofs are for that reason bad arguments. Indeed, so far as I can see, while in the *Prima Pars* Aquinas uses the conclusion of some of the five ways in later establishing some of the divine attributes (e.g., Aquinas reasons to the identity of essence and existence in God on the grounds that he is *causam efficientem primam*,⁵⁸ which is concluded to in the second way), he never uses "aliquid intelligens" to establish any other truth about God, including those truths that are related to intelligence, such as whether God has *scientia*, whether God has ideas, and whether all things are subject to God's providence.⁵⁹ Paley himself calls attention to how people get sidetracked by other questions: "When we are inquiring simply after the existence of an intelligent Creator, imperfection, inaccuracy, liability to disorder, occasional irregularities, may subsist, in a considerable degree, without inducing any doubt into the question," for while such raise questions concerning "the skill of the artist . . . these are different questions from the question of the artist's existence . . . and the questions ought always to be kept separate in the mind."⁶⁰

Christopher Martin is one of many who raise basically the same type of objection that Hume does: "The second objection to the argument from design is that it does not get us to God, but only to a Designer, A Demiurge . . . The Being whose existence is revealed to us is not God but the Great Architect of the Deists and Freemasons . . ." ⁶¹ Yet the question of deism or whether or not God governs things after creating them is a separate question from God's existence. Paley's argument is not to be faulted because it does not address another question. (Aquinas takes up deism in the *Prima Pars* [I 105.5] in a separate question, long after he addresses the question of God's existence [I 2.3].) Similarly, the claim that Paley's argument is to be rejected because it only gets us to a Demiurge

⁵⁸ *ST* I, q. 3, a. 4: "It is necessary, therefore, that that whose being is other from its essence has being caused by another. This is not able to be said of God, for we say that God is the first efficient cause of being. Therefore, it is impossible that in God his being is one thing and his essence another."

⁵⁹ See *ST* I, qq. 14, 15, and 22.

⁶⁰ Paley, *Natural Theology*, pp. 42-43.

⁶¹ Paley, *Natural Theology*, p. 181.

or a subordinate deity that crafts the material universe⁶² is based on the false expectation that a single argument answer more than one question. Paley's argument again draws the single conclusion that there is an intelligent being behind a given natural feature that has a manifest ordering of its parts to a goal; it draws no conclusion about the nature of this intelligence.⁶³

7. Conclusion

I think Paley is mistaken on quite a few of questions that he takes up in *Natural Theology*. However, I think his design argument, stated in its strongest form, is an argument that has been too often set aside as a result of misguided criticisms. It was not my intention here to fully investigate the strength of Paley's argument, but only to open up the way to a fairer consideration of it, first, by putting to rest certain arguments typically leveled against it, and secondly, by showing a significant similarity between it and the Fifth Way. I have shown that Paley's argument is in no-wise affected by his view on whether the ordering of organic parts to their ends is imposed from without, and that it is not subject to the same critique leveled against ID arguments (namely, that they are appeals to ignorance). I have made plain that objections to the effect that his argument does not allow one to answer other questions concerning God are irrelevant. In addition, I have shown that both Paley and Aquinas's arguments are based on the same understanding of practical intelligence, i.e., as the ability to fix ends and proportion means to them. While Paley's argument is of more limited scope than Aquinas's, and while a question can be raised about its certitude on account of the type of evidence it relies on, it is not plain that it is as devoid of merit as some of its objectors would have us believe; for example, those who dismiss it on the grounds that it is merely an argument by analogy. Perhaps some of the objections raised against Paley's argument that I have not considered here hold true.⁶⁴ I hope to have opened a path to

⁶² Paley himself acknowledges that his argument is compatible with the existence of a Demiurge. However, his design argument of itself does not commit him to asserting the existence of such a being; see *Natural Theology*, p. 28.

⁶³ Note that the conclusion of the Fifth Way does not offer an immediate answer to the question of "whether the forms of bodies are from angels" (see *ST* I, q. 65, a. 4), a question similar to whether a demiurge exists. Yet no one would think to fault the Fifth Way for so much; indeed to do so would be to introduce an irrelevant thesis into the discussion.

⁶⁴ A question worth pursuing is whether Paley's argument is more difficult to defend than the Fifth Way is in the face of claims that random variation and natural selection offer a complete explanation of the original of adaptations in organism; see Feser, "Between Aristotle and William Paley," p. 740. A closely related question is how Paley and Aquinas

a more fruitful consideration of which, if any, these are, and also to further consideration of the relative strengths and weaknesses of Paley's design argument in comparison to the Fifth Way.⁶⁵

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compare as to their rejection of chance as an explanation for ordering to an end in organisms. Aquinas's argument consists of two syllogisms, and it is the first of the two syllogisms which addresses chance.

⁶⁵ Paley's argument seems to have an advantage over Aquinas's in that it is not clear in the case of non-living natural things that they tend to some good. Aquinas affirms that: "All natural bodies, lacking knowledge, operate in the same mode such that what is obtained is the best." Yet what is the good that a rock or water tends to? In the case of most organic parts, the good they tend to is apparent; eyes are for the sake of sight which is a good, and hands are for the good of grasping food, etc. Aquinas, taking inspiration from Aristotle, sees the natural motions of the elements to have as their goal places that preserve them, but I fail to see that how this is true (see *Commentary of the Physics*, Bk. 4, lec. 1, #411-12 (Marietti edition).