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A Plea to Thomists: Will the Real Darwinian Please Stand Up? On Some Recent Defenses of the Fifth Way

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Abstract: In this paper, we discuss with some contemporary Thomists the possibility of re-actualizing Thomas's fifth way to God in the science–theology dialogue. We start with a reference to Spinoza's critique of teleology in light of some recent Spinoza studies, and after summarizing several Thomistic defenses of Aquinas's teleological argument, we interpret that critique as targeting the fifth way as well. We then focus on Darwin's impact on biological design arguments. We argue that his naturalistic explanation of biological teleology also affects the fifth way. The distinction between internal-Aristotelian and external-Platonic conceptions of teleology does not seem to be able to protect the teleological argument from a Darwinian critique. We conclude by stressing the importance and fruitfulness of Thomas's thought for contemporary interdisciplinary dialogue, provided that Darwin's impact on the biological version of the fifth way is taken into due account.

Keywords: natural teleology; natural theology; fifth way; Spinoza; Thomas Aquinas; Darwin; Thomists

1. Introduction: Spinozists Ruminating on Teleology

On the occasion of an international conference that dates back to 1986, Edwin Curley dialogued with Jonathan Bennett over how to interpret Spinoza's critique of teleology (Curley 1990; Bennett 1990). In their exchange, Curley recalled an "Aristotelian tradition of teleological explanation" (p. 45) that was quite widespread in the seventeenth century. One that, according to him, is the real target of Spinoza's attack, as recounted in the Appendix to the first part of the *Ethics*. This tradition, Curley's argument goes, does not repropose a strictly Aristotelian view. Rather, it is in significant ways distinct from the Stagirite's and derives from the medieval elaboration of the Aristotelian doctrine of final causality. In short, the original internal, unthoughtful teleology that Aristotle set forth to explain the biological features and the goal-oriented, recurrent behaviors of non-human living beings metamorphoses into an external one. The *telos* displayed by non-human organisms is now rationalized by referring to the aims of a supernatural entity that provides this very *telos* to them.

[...] If we say that the camel has extra stomachs in order to cope with its thorny diet, we will not be true to Aristotle himself if we elaborate on our explanation by adverting to God's plan for his creation. Nevertheless, that's essentially what certain medieval followers of Aristotle did. Like some modern students of Aristotle, they could not make any sense of the idea of an unconscious teleology in nature. But believing, as they did, in a rather different kind of God, they felt that they could explain teleology in nature better than the master had (p. 45).

The shift here is from a naturalistic teleology to a "theological teleology" (Curley 1990, p. 46; see also Osler 1996). Spinoza's attack on this kind of teleological explanation was very relevant in the seventeenth century, when it was formulated, and is still worthy of attention today. These important aspects of Spinoza studies have been tackled again several years later by another well-known Spinozist, Andrea Sangiacomo, who in 2016 published a paper in the *Journal of the History of Philosophy* on the same issues (Sangiacomo 2016). In



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his work, Sangiacomo analyzes two different kinds of teleology with the aim of detecting the exact target of Spinoza's critique. Firstly, he describes the Aristotelian conception of final causality. Aristotle's teleology is internal to the organisms; it is not conscious and contributes to their own flourishing. For a correct understanding of his idea of teleology, it must also be stressed that, for the Stagirite, final causes can be seen as coincident with organisms' formal and efficient causes (Sangiacomo 2016; Quarantotto 2005). Secondly, Sangiacomo introduces the thought on teleology of an Aristotelian philosopher contemporary of Spinoza: Adrian Heereboord (1614–1661). He explains how Heereboord's account of final causality represents a typical instance of the theological, external conception of finality recalled by Curley in his exchange with Bennett. With the help of a historic-theoretical analysis of some texts of both Spinoza and Heereboord, Sangiacomo convincingly shows that the kind of teleology criticized by Spinoza in the Appendix to the first part of the *Ethics* is the external one espoused by Heereboord, rather than the internal, unthoughtful other theorized by the Stagirite. In doing so, Sangiacomo names a thinker who, in virtue of his endorsement of Aristotle's explanation, would seem immune from Spinoza's critique: Thomas Aquinas (p. 414).

2. From Spinoza to Thomas Aquinas

Sangiacomo's choice of Aquinas, for analyzing other approaches to teleology in line with the Aristotelian tradition, is surely valid. However, this reference allows us to investigate also a different context in which, in our opinion, the distinction between Aquinas's (and Aristotle's) concept of internal finality and Heereboord's external other gets, in one particular respect, blurred. This context is natural theology. Indeed, one of the most known proofs for the existence of God formulated inside the Western philosophical tradition moves from biological contrivances and teleology: the so-called design argument or teleological argument. The fifth way to God, as encapsulated in *Summa Theologica* I, q. 2, a. 3, is the most known locus—but not the only one—in which Aquinas articulates his version of this proof (Sober 2002; Ayala 2007; Jantzen 2014). It reads as follows:

The fifth way is taken from the governance of the world. We see that things which lack intelligence, such as natural bodies, act for an end, and this is evident from their acting always, or nearly always, in the same way, so as to obtain the best result. Hence it is plain that not fortuitously, but designedly, do they achieve their end. Now whatever lacks intelligence cannot move towards an end, unless it be directed by some being endowed with knowledge and intelligence; as the arrow is shot to its mark by the archer. Therefore some intelligent being exists by whom all natural things are directed to their end; and this being we call God (Aquinas 1948).¹

This proof can also be found inside the *Quaestiones de Veritate* and the *In Evangelium Ioannis lectura* (Van Steenberghen 1980b).²

3. From Thomas to Thomists

Inside the philosophical debates around the very possibility of articulating a natural theology and the best way/s to infer the Transcendent, the aforementioned distinction between an internal Aristotelian teleology, on the one hand, and the external, on the other, has been invoked by several philosophers, both in the twentieth and twenty-first century, to defend the fifth way—which they see as a legitimate and convincing argument—and to protect it from philosophical attacks. According to this line of thought, the classic critiques against design arguments would only affect those versions of the proof that, in order to infer a Designer, exploit an external-Platonic teleology, as in the case of William Paley's argument, and of the versions of earlier physico-theologians such as Robert Boyle and John Ray, not to mention today's intelligent design theorists—mainly, Behe and Dembski.³ On the contrary, the internal-Aristotelian teleology espoused by Aquinas would be immune from these critiques, thus rendering the fifth way a still-walkable path to God. Let us consider one example of this approach. In the last century, Italian neo-scholastic philosopher Sofia Vanni

Rovighi (1908–1990), in her *La filosofia e il problema di Dio (Philosophy and the Problem of God)*, articulates a brief defense of the fifth way on the basis of this very distinction. Preceded by a historical digression, in which she highlights the antiquity and diffusion of the design argument, with some references to Psalm XVIII, a fragment from Aristotle’s *Peri philosophias* as reported by W. Jaeger, Hugh of Saint Victor, Boyle, and Newton (Vanni Rovighi 1986, pp. 69–73), her assessment of Aquinas’s path is that “it is way more critical, more rigorous than seventeenth/eighteenth-century physico-theology” (Vanni Rovighi 1986, p. 73, our translation). This judgement had also been formulated inside her preceding *Introduzione a Tommaso D’Aquino (Introduction to Thomas Aquinas)*, in which she offers a vivid image for distinguishing the design argument of William Paley—natural contrivances presuppose a Designer, as a watch presupposes a watchmaker—from that of Aquinas. The starting point of the fifth way is a finality “detected in some things (*aliqua quae cognitione carent*)” (Vanni Rovighi 1981, p. 61, italics in original, our translation): “Things that—as demanded by the Aristotelian conception of nature presupposed by Thomas—already have in themselves an entelechy, i.e., an intrinsic principle of unity and finality; they already have their own watchmaker inside themselves” (Vanni Rovighi 1981, pp. 61–62, our translation).⁴

An in-depth analysis of the fifth way can also be found in some works of the Dominican philosopher Fernand Van Steenberghe (1904–1993). He deems the fifth way as one of the “incomplete solutions” to the problem of the philosophical demonstration of God. Indeed, for Van Steenberghe, this way should be supplemented with a metaphysical proof, capable of demonstrating not simply the existence of one Intelligence (or many Intelligences) at the origin of unthoughtful teleological behaviors (Van Steenberghe 1966, pp. 128–39), but rather a more fundamental “infinite and unique Being, total cause of the order of finite beings”. A conclusion from which it would thus be “easy to prove that this infinite and unique Cause is a personal, intelligent, loving and provident Being” (Van Steenberghe 1966, p. 139). However, his overall assessment of the teleological way can be seen as positive. For him, “the views soberly expressed by St. Thomas in the text of the *Fifth Way* are right and profound” (Van Steenberghe 1966, p. 129, italics in original), and they are confirmed and supported by scientific advancements (Van Steenberghe 1980b, pp. 67–68, 183). Van Steenberghe defends the validity of the fifth way again, inside a later collection of philosophical essays titled *Études philosophiques* (Van Steenberghe 1988).

The conclusion imposes itself: the finality that manifests itself everywhere in the biosphere reveals the *action of an Intelligence that transcends* the material world. Only the intervention of such an Intelligence can account for the innumerable means-ends relations that we discover in every living being and for the biosphere’s irresistible growth, notwithstanding all the obstacles, towards the appearance of the human person: the history of life clearly displays the design of an intelligent and benevolent Being (p. 213, italics in original, our translation).

This approach to God has been defended by twenty-first century Thomists too. Indeed, in some of her essays on Thomas, the structure of his thought, and the possible ways of re-actualizing it, Marie George advocates the compatibility of the fifth way and contemporary evolutionary biology. One year after the great 2009 Darwinian celebrations—200 years from Darwin’s birth, 150 years from the publication of *On the Origin of Species*—she asked herself whether the time had finally come “to retire the fifth way” (George 2010b). The answer was a resounding no: “I intend to make a case that evolution, even when understood to occur through chance and necessity, is not a reason to reject the Fifth Way, but rather bears preeminent witness to its truth” (George 2010b, pp. 210–11). Why? For George, the Darwinian explanation of evolution by natural selection, the role that chance plays in it, the many imperfections displayed by living beings, and evolutionary tinkering—the rearrangement of preexisting components, previously used for other ends, that creates evolutionary novelties (Jacob 1977)—are perfectly compatible with the starting point of Aquinas’ argument, namely, that unthoughtful teleological behaviors exist in nature. Furthermore, the Thomistic distinction between different levels of causality—primary and secondary—would strengthen rather than undermine the idea of a wise, provident Intel-

ligence at the basis of said teleology. It would magnify God's wisdom. Indeed, for God (primary causality), it would be wiser to endow nature with the power(s) to do things (secondary causality) rather than to intervene directly to do those very things Himself (pp. 215–16).⁵ In addition, George supports her conviction of the compatibility of Darwinism and the fifth way with the rather strong statement that the conclusion of the proof cannot really be denied because it is self-evident to those who think attentively about the issue at stake: "I think it is self-evident that where non-intelligent causes are coordinated to achieve an end, this must be the work of intelligence, and that all one can do is to try to show the absurdities that follow from saying other" (pp. 216–17). This stance is defended again in a subsequent paper that asks *What Would Thomas Aquinas Say about Intelligent Design?*: "When one reflects that causes acting by tendency and those acting by chance need to be carefully orchestrated if they are to produce the amazing array of organisms that has evolved on our planet, it is obvious that the evolution of new life forms must have an intelligent cause; one either acknowledges this or one doesn't" (George 2013, p. 698). To the obvious objection that the very presence of teleological arguments in philosophical literature seems to testify against the patency of the implication from natural teleology to Intelligence, George answers that the problem would not be in the implication itself but in the human intellect that does not recognize its truth and therefore needs an argument to reach a conclusion that, on the contrary, would be "self-evident to the wise" (George 2013, p. 696 n. 53). She analyzes the fifth way again in one of her response papers addressed to another known contemporary Thomist, Edward Feser.⁶ In her *Thomistic Rebuttal of Some Objections to Paley's Argument From Design* (George 2016), she stresses some remarkable similarities between the fifth way and the design argument formulated inside *Natural Theology* (Paley [1802] 1972). One of them is particularly relevant in our context because it is centered around the kind of teleology at the start of the two paths to God. Indeed, against the idea defended by Feser that the different conceptions of teleology adopted by Aquinas and Paley—Aristotelian-internal and Platonic-external, respectively,—would render the two proofs "incompatible", George affirms the irrelevance of such a distinction when applied to the inferential stages of the arguments (George 2016, pp. 267–73). In other words, with regard to the passage from teleology to the (supposed) Mind behind it, the distinction between internal and external conceptions becomes irrelevant in deciding whether the argument is valid or not. Indeed, for the two proofs, both kinds of teleology would be equally legitimate indicators of an underlying supernatural Intelligence. Therefore, on the one hand, George describes Paley with words that could have been used for Aquinas too: "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" (p. 285). On the other hand, she leaves open the crucial question of whether Paley's argument would be more amenable to Darwinian critiques than its Thomistic counterpart and refers the reader to Feser's essay for a formal analysis of this issue.

In *Between Aristotle and William Paley: Aquinas's Fifth Way* (Feser 2013), the assessment of the differences between the proofs of Aquinas and Paley echoes Vanni Rovighi's. Indeed, Feser states that "Aquinas's proof is more philosophically formidable and theologically sound" than Paley's (p. 708). However, he also formulates the rather surprising statement that, when confronted with Darwinism, none of the two proofs would be ruled out by the latter: "Neither Paley nor Aquinas is refuted by Darwin's account of evolution by natural selection" (p. 740). Feser specifies his thought by adding that "Paley is at least seriously threatened by it [Darwin's explanation], while the Fifth Way is not threatened by it at all" (p. 740). Again, the evaluation of the different impacts of Darwinism on them hinges upon the aforementioned distinction, that between external and internal kinds of teleology at the basis of the two versions, respectively. Therefore, Feser's argument goes, since nowadays we are witnessing the resurgence of the Aristotelian conception of immanent finality in philosophy, the starting point of the fifth way, and thus the fifth way in its entirety, would turn out to be confirmed and strengthened (p. 749).

Inside contemporary Thomist circles, the studies that compare and contrast the fifth way and other similar arguments display some shared structural elements. Indeed, they generally are masterful pieces of Thomistic sophistication, which pinpoint all the subtleties that help elaborate a thorough typology of different kinds of teleological/design arguments. Another shared feature emerges in their conclusion, that usually follows those of the above-mentioned neo-scholastics from the last century: in light of the distinction that can be drawn between Thomas' argument and the others, the former is salvaged, the latter discarded. So, in introducing one of his recent essays on Thomistic approaches to the science–theology dialogue, Mariusz Tabaczek declares that he will “explore the explanatory potential of Aquinas's fifth way”, that, for him, “enables us to say much more about God than a simple assertion that all natural things are ordered to him as an end” (Tabaczek 2022, pp. 1181–82). In his study, he devotes a paragraph to distinguishing teleological from design arguments, and he does so “in line with the tradition of Thomistic natural theology” (p. 1181). Finally, he concludes with the hope “to have shown that, when clearly distinguished from Paley's argument from design and its contemporary version developed by the proponents of ID [intelligent design], the classical notion of teleology becomes a promising and fruitful inspiration for both natural theology and theology of nature” (Tabaczek 2022, pp. 1205–6). Going back to 2014, we can re-evolve an essay by William Newton in which, after distinguishing between the fifth way and intelligent design theories, he states that “any critique offered in regard to the latter normally leaves the former unscathed” (Newton 2014, p. 569), and that “while the Intelligent Design argument is a possible target for objections that chance and natural selection are the cause of complexity, the Fifth Way is not nearly so easily disturbed by the idea of evolution” (Newton 2014, p. 573). Therefore, his conclusion—formulated with a nice idiomatic ornithological metaphor—is the following: “All the objections mounted by radical atheists against Paley, Dembski, Behe, and such like arguments of design are water off a duck's back when they are turned against Aquinas's fifth argument for the existence of God” (p. 578). In the same fashion, one year later Alberto Barbés concludes a paper on this issue asserting that “the vision of nature that we find in Aquinas is very coherent with the current worldview as well as with the theory of evolution. And this signals with greater strength the current appeal of Saint Thomas's fifth way in the context of the philosophy of nature” (Barbés 2015, p. 133, our translation).⁷

4. Spinoza Strikes Back, Darwin Holds on

In our dialogue with contemporary Thomists, we want to propose a different reading of the fate of the fifth way. Indeed, on the one hand, distinguishing between internal and external conceptions of teleology is surely necessary for understanding the exact starting point of each argument. In the same fashion, distinguishing teleological from design arguments can be helpful for detecting the argumentative strategy adopted by this or that natural theologian. On the other hand, when it comes to evaluating the effectiveness and the efficacy of the ways to God that move from biological contrivances and/or teleology, those very distinctions cease to be useful. In other words, our point is that the appeal to a distinction between internal and external teleology, in order to safeguard the inferential value of the former and drop that of the latter, cannot guarantee the theoretical outcome for which it is evoked. Let us clarify this point by returning to Spinoza and his critique of teleology. Saint Thomas, in the fifth way, by invoking God to rationalize non-human beings' unconscious teleology, seems to imply a very specific presupposition: that it is impossible for nonconscious, unintelligent beings to act for an end without knowing it, unless the propensity to reach that end is provided by an intelligent being. Then, a God exists who endowed these beings with this propensity. The teleology utilized here is Aristotelian (internal, unthoughtful). Nonetheless, Aquinas's argument goes, it is philosophically necessary, in order to avoid contradiction, to affirm that a deity endowed these unintelligent beings with their (internal) teleology. However, Spinoza's

critique seems to rule out this specific presupposition as well. How? Let us consider the following passage of the *Ethics* (Spinoza 1994, pp. 112–13), quoted by Sangiacomo as well:

If a stone has fallen from a roof onto someone's head and killed him, they will show, in the following way, that the stone fell in order to kill the man. For if it did not fall to that end, God willing it, how could so many circumstances have concurred by chance (for often so many circumstances do concur at once)?... And so they will not stop asking for the causes of causes until you take refuge in the will of God, that is, the sanctuary of ignorance. . . Similarly, when they see the structure of the human body, they are struck by a foolish wonder, and because they do not know the causes of so great an art, they infer that it is constructed, not by mechanical, but by divine, or supernatural art, and constituted in such a way that one part does not injure another (G II. 80–81/C 112–113).

This quote targets all those who, ignoring the reasons why things happen in nature, decide to resort to the will of God to justify them. As already noted, in his essay Sangiacomo argues that this attitude, interpreted by Spinoza as a “reduction to ignorance”, can be detected especially in those rationalizations of teleology that adopt the external-Platonic conception, rather than the internal-Aristotelian one: Heereboord, not Aquinas. However, we think that Spinoza's critique can also be interpreted in a broader way, namely, as targeting both kinds of teleology—external and internal—when they are used to infer God. Indeed, on closer inspection, also the fifth way seems to contain the residue of a “reduction to ignorance”. What Thomas seems to have ignored while formulating his teleological argument—and of course we do not blame him for that since he lived in a pre-Darwinian era—is the possibility that nature could produce *naturally* its unconscious, internal teleologies. At this point, a caveat is needed since our Thomist friend will retort immediately that, of course, this is not the case: the Aristotelian conception embraced by Thomas explains precisely the dynamics through which unconscious beings act teleologically in a natural way. Our caveat is that, in this context, the adverb “naturally” should be read as follows: in a way that does not demand us to argue for the existence of a supernatural Designer at all. In other words, it is the recourse to Intelligence for explaining philosophically, or even metaphysically, any kind of unconscious teleology, either external or internal, that implies the aforementioned residue. In this sense, contrary to what several Thomists past and present think, our position is that the fifth way makes no exception and is on the same boat as the design arguments that invoke external conceptions of teleology. We thus agree with George when, in stating that both kinds of teleology would be legitimate starting points for both kinds of arguments, she equates Thomas and Paley under this specific respect. However, we part ways with her when it comes to evaluating the impact of Darwin on that boat. For us, the impact results in a shipwreck. Why?

This question can be answered with the help of some studies in the contemporary philosophy of biology that, by now, can be considered, for all intents and purposes, as classic. Indeed, in this area of the philosophy of science, the distinction between external-Platonic and internal-Aristotelian conceptions of teleology has been analyzed in detail repeatedly (e.g., Ayala 1970; Lennox 1992; Amundson 1996; Ruse 2003; Ariew 2002, 2007).⁸ Besides investigating the respective differences of said teleologies, the main intents of those studies are, on the one hand, to highlight the kind of teleological explanation adopted by this or that physico-theological argument; on the other hand, and closely related to the former, to assess the way in which Darwin impacts the teleological explanations elaborated by ancient Greek philosophers, as well as by modern physico-theologians. In this context, also the fifth way has been re-evoked (Ruse 2003, pp. 21–23; Ayala 2007, p. 2), and its structure dissected (Jantzen 2014, pp. 50–57). Philosopher of biology André Ariew, following his colleague Ron Amundson, describes it as an argument that “exemplifies the melding of two teleologies [Platonic and Aristotelian] whereby regularity of pattern is offered as evidence of design” (Ariew 2002, p. 17).

In light of this, how are we to understand Darwin's contribution to teleological thinking, and his impact on teleological arguments? For what concerns us here, we can assert

the following. Darwin has masterfully shown that it is possible and legitimate to explain unthoughtful teleology in a fully scientific, naturalistic way, that is to say, without the need to refer to a supernatural deity in order to account—both scientifically and philosophically—for biological teleologies of any kind, be they external or internal. Indeed, when philosopher of biology James Lennox states that “Darwin *was* a teleologist” (Lennox 1993, emphasis in original), he evokes the process whereby the English naturalist naturalized teleological reasoning in biology, and he hints at the proper way to interpret that process. Lennox resorts to some of Darwin’s botanical studies devoted to primulas and orchids, in which his argumentative strategy can be clearly detected. Let us focus on the studies on the former and the way they are schematized by Lennox (1993, pp. 412–14; also see Lennox 2013; Lennox and Kampourakis 2013). *Primula veris* is hermaphrodite, and shows sexual dimorphism. Its two forms are named by Darwin “long-styled” and “short-styled”: the former has long pistil and short stamens, the latter the reverse. In his experiments, Darwin shows that dimorphism has a specific effect, namely, that of “increasing heteromorphic crosses and decreasing homomorphic fertilization”, and that the former “are more fertile and produce more vigorous offspring” than the latter. This implies that “natural selection would thus favor increased dimorphism in *Primula veris*”. Darwin’s conclusion can be expressed as follows: “Dimorphism is present in *Primula veris* because it promotes inter-crossing” (Lennox 1993, p. 414, emphasis in original). The use of the conjunction “because” here is fully legitimate. It indicates that the explanation is truly teleological but of a novel kind, since based on natural selection. It is a “selection-based teleology” (Lennox 1993, p. 417). In other words, Darwin provides a “new underpinning for teleological explanation” (Lennox 1992, p. 330), one that does not demand the recourse to intelligence for rationalizing teleology and that, in principle, can be applied to the other biological examples chosen by the supporters of the fifth way to defend the argument.

Encouraged by many close followers to drop the term “natural selection”, Darwin steadfastly refused. He saw, better than his followers, that it could not easily be dropped. In the context of viewing variation as the provision of a random set of alternatives, a mechanism for selecting among them is crucial. The concept of selection permits the extension of the *teleology* of domestic breeding into the natural domain, without the need of conscious design. As in domestic selection, the good served by a variation continues to be causally relevant to its increasing frequency, or continued presence, in a population—but the causal mechanism, and the locus of goodness, shifts (Lennox 1993, p. 417, emphasis in original).⁹

In light of Lennox’s explanation, we can express Thomas’ position (T) and Darwin’s accomplishment (D) in symbols—where “t” is biological teleology and “g” is a God responsible for biological design and/or biological teleology:

$$(T): t \wedge \neg (t \rightarrow g) \vdash \perp$$

$$(D): t \wedge \neg (t \rightarrow g) \vdash / \perp$$

They read as follows: whereas, for Thomas, it would be self-contradictory to conceive of unconscious teleologies in nature without implying God, for Darwin, on the contrary, that scenario is not self-contradictory at all. Indeed, for him, it is possible to rationalize unconscious teleologies in nature without *any* kind of reference to a designer God—a potentiality he actualizes via the above-mentioned strategy. From this, it follows that Darwinism and the fifth way—in its version that starts from the living realm¹⁰—are far from being compatible: they are mutually exclusive. This conclusion is opposed to the one defended by Feser and valued recently by science and theology scholar Mikael Leidenhag who, in line with Feser, schematizes Thomas’s reasoning succinctly: “First (1), the Scholastic philosopher notes that there is irreducible and immanent teleology within nature. From that observation it is argued that (2) such teleology is unintelligible without an extra-natural intellect. From (1) and (2) it is concluded that there is an ‘intellect outside the natural order’ which endowed natural agents with intrinsic teleology” (Leidenhag 2021, p. 407).

The fifth way is affected by Darwin's explanation of teleology, notwithstanding its being positioned inside an explicit philosophy of nature and/or a metaphysics, that is to say, also when a necessary, careful distinction between (the philosophy of) biology on the one hand, and a supplementary philosophical interpretation of it, on the other hand, is maintained. Indeed, in light of Darwin's selection-based teleological explanation, doubt emerges over the legitimacy of this further philosophical approach to nature. Is it still possible to defend a philosophical reading of biological teleology as pointing towards a Mind, when contemporary philosophers of biology, in Darwin's wake, teach us that that very implication is not needed anymore? Our answer is negative. Re-evoking William Newton's ornithological image, we retort that the Darwinian critique of biological design/teleological arguments is, for the fifth way, no water off the duck's back at all. Rather—following Daniel Dennett's metaphor (Dennett 1995)—we think that that liquid is an acid and that the duck is melted. Our recourse to Dennett's vivid image of Darwinism as a "universal acid" (Dennett 1995, pp. 61–84) must, in any case, be qualified. Indeed, here, such acid should not be seen as universal but local. In stating that Darwin's naturalization of biological teleology renders any reference to a designer God unnecessary and that the fifth way makes no exception, it is crucial to underline again that we are circumscribing our focus on the area of natural theology and, more precisely, on a very specific kind of natural theological argument. In other words, our point is that if, on the one hand, Darwinism has the power to block biological design/teleological arguments, on the other hand, it does not have the power to block other possible approaches to God and to the relation between natural teleology and Divine action. By way of example, we can refer to one of these other approaches from contemporary Thomism. In the second part of his recent *Reframing Providence* (Kopf 2023, pp. 189–230), Simon Maria Kopf tackles the issue of natural and divine teleology. At the outset of his analysis, he declares explicitly his perspective. His investigation must be seen as an exercise in the theology of nature rather than in natural theology: "The chapter is about seeing nature in light of the doctrine of God and his providence" (p. 191).¹¹ Having declared that, Kopf is then free to ruminate on the nuances and subtleties that can be learned from Thomas on this issue, and to answer Schmid's argument—known as the "inconsistency objection"—against the compatibility of extrinsic divine and intrinsic natural teleological explanations in Aquinas (Schmid 2011; Kopf 2023, pp. 221–25). By analyzing Thomas's philosophical theology as well as his philosophy of nature, Kopf supports the theoretical legitimacy of defending both the providential ordering of nature by God as the primary cause and the true efficacy of intrinsic natural teleologies as secondary causes, showing that in Aquinas, the two must not be seen as mutually exclusive. Again, Kopf's argument is legitimate and compatible with a Darwinian approach to biological teleology, given that it does not try to use teleology to demonstrate the existence of God (natural theology); rather, it starts from a Christian, Thomistic pre-comprehension of nature as created by God, and ordered providentially by Him (theology of nature).

Our study can be read as an answer to the invitation formulated by Ignacio Silva in his *From Extrinsic Design to Intrinsic Teleology* (Silva 2019). After revisiting the history of the design argument, the main philosophical, scientific, and theological objections against it—formulated by Hume, Darwin, and Newman, respectively, and after a careful analysis of different English translations of the *Summa Theologica*, that might have led some scholars to equate the fifth way with other design arguments, that essay left to future investigations the analysis of the strength of Thomistic theological arguments in interdisciplinary dialogue. The present paper can thus be seen as a contribution in this regard.

5. Conclusions: Will the Real Darwinian Please Stand Up?

Our reasoning on the structure, scope, and value of the fifth way, and on the ways in which it interacts with science, might appear as a hyper-specialistic exercise in Thomism, with little to no relevance for contemporary science–theology dialogue. However, when it comes to evaluating the role of these ruminations in interdisciplinary debate, we think that the opposite is the case. An analysis of Darwin's impact on the biological version of

the teleological argument originates many other questions that deserve to be investigated in detail. Can Darwin's collision with the fifth way also teach us something about how to approach other versions of the proof, namely, those that start from inanimate rather than animate nature? Is there a broader lesson to be learned for design arguments, teleological arguments, and natural theology in general? We think that the answer is affirmative and that a detailed reasoning on this issue would highlight the many dangers of relying on science to argue for God's existence. Furthermore, in light of the very structure of Thomas's natural theology, which seeks to articulate strong, incontrovertible proofs rather than probabilistic arguments, another question could be asked: How to assess the efficacy of the new, "weakened" versions of the design argument, which limit themselves to (try to) suggest, rather than demonstrate, the existence of a Designer? Is not the demise of its strongest, demonstrative version a clear indicator that, *a fortiori*, also the weaker are doomed to fail? Nowadays, many science-theology scholars support a displacement of natural theology and relocate it inside a theology of nature. Must these new versions still be understood as natural theological arguments once the migration has occurred? These charming questions will be tackled in future research.

In conclusion, we must revisit the plea that titles our paper. In this essay, we tried to show the reasons why, in our opinion, for a Thomist to be a *real* Darwinian, they should embrace Darwin's explanation of teleology and, consequently, they should come to terms with its impact on the fifth way. Can a Thomist be a Darwinian?¹² Of course they can. The authors evoked here exemplify the complex and nuanced ways in which contemporary Thomism and Darwinian evolutionary biology can enter into constructive dialogue. Therefore, our plea to Thomists is also a sympathetic praise of Thomists. With their essays, our Thomist interlocutors teach us that in the school of Aquinas, there is always a lot to learn and that the Angelic Doctor is here to stay. However, we are also convinced that the lesson to be learned from Darwin still holds true. In natural theology, the real Darwinian Thomist will dismiss the biological version of the fifth way—as Thomas himself surely would, had he lived in a Darwinian era.

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Notes

¹ “Quinta via sumitur ex gubernatione rerum. Videmus enim quod aliqua quae cognitione 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”.

² These two versions read as follows: “Causae enim materialis et agens, in quantum huiusmodi, sunt effectui causa essendi; non autem sufficiunt ad causandum bonitatem in effectu, secundum quam sit conveniens, et in seipso, ut permanere possit, et in aliis, ut opituletur. Verbi gratia, calor de sui ratione, quantum de se est, habet dissolvere; dissolutio autem non est conveniens et bona nisi secundum aliquem certum terminum et modum; unde, si non poneremus aliam causam praeter calorem et huiusmodi agentia in natura, non possemus assignare causam quare res convenienter fiant et bene. Omne autem quod non habet causam determinatam, casu accidit. Unde oporteret, secundum positionem praedictam, ut omnes convenientiae et utilitates quae inveniuntur in rebus, essent casuales; quod etiam Empedocles posuit, dicens casu venisse ut per amicitiam hoc modo congregarentur partes animalium, ut animal salvari posset, et quod multoties accidit. Hoc autem non potest esse: ea enim quae casu accidunt, proveniunt ut in minore parte; videmus autem huiusmodi convenientias et utilitates accidere in operibus naturae aut semper, aut in maiore parte; unde non potest esse ut casu accidant; et ita oportet quod procedant ex intentione finis. Sed id quod intellectu caret vel cognitione non potest directe in finem tendere, nisi per aliquam cognitionem ei praestituatur finis et dirigatur in ipsum; unde oportet, cum res naturales cognitione careant, quod praeeexistat aliquis intellectus qui res naturales in finem ordinet, ad modum quo sagittator dat sagittae certum motum, ut tendat ad determinatum finem; unde, sicut percussio quae fit per sagittam non tantum dicitur opus sagittae, sed proicientis, ita etiam omne opus naturae dicitur a philosophis opus intelligentiae. Et sic oportet quod per providentiam illius intellectus qui praedictum ordinem naturae indidit, mundus gubernetur” (*Quaestiones de Veritate*, q. V, a. 2); “In hac autem contemplatione Ioannis circa Verbum incarnatum quadruplex altitudo designatur. Auctoritatis, unde dicit *Vidi Dominum*; aeternitatis, cum dicit *sedentem*; dignitatis seu nobilitatis naturae, unde dicit *super solium excelsus*; et incomprehensibilis veritatis, cum dicit *elevatum*. Istit enim quattuor modis antiqui philosophi ad Dei

cognitionem pervenerunt. Quidam enim per *auctoritatem* Dei in ipsius cognitionem pervenerunt, et haec est via efficacissima. Videmus enim ea quae sunt in rebus naturalibus propter finem agere et consequi utiles et certos fines; et cum intellectu careant, se ipsa dirigere non possunt nisi ab aliquo dirigente per intellectum dirigantur et moveantur. Et hinc est quod ipse motus rerum naturalium in finem certum indicat esse aliquid altius quo naturales res diriguntur in finem et gubernantur. Et ideo, cum totus cursus naturae ordinate in finem procedat et dirigatur, de necessitate oportet nos ponere aliquid altius quod dirigat ista et sicut dominus gubernet, et hic est Deus” (*In Evangelium Ioannis lectura*, pr. 1), quoted in (Van Steenberghe 1980b, pp. 55–56, 275).

3 A dialogue between supporters and opponents of intelligent design is offered in (Dembski and Ruse 2004).

4 For her assessment of the fifth way, see also (Vanni Rovighi 1978, pp. 103–6; 2013, pp. 117–22).

5 This idea is not new to the science–theology dialogue. It is reminiscent of Charles Kingsley’s nineteenth-century dictum supporting the compatibility of Darwin’s theory and theism, which reads: “We knew of old that God was so wise that He could make all things: but behold, He is so much wiser than even that, that He can make all things make themselves”; quoted in (McGrath 2011, p. 99).

6 The exchange between George and Feser on these issues started with the former’s reaction to a paper on teleology of the latter. See (Feser 2010; George 2010a; Feser 2011). The results of this dialogue have been summarized recently by E.V.R. Kojonen, in a book that argues for *The Compatibility of Evolution and Design* (Kojonen 2021).

7 In the same vein, see also (Rooney 2009, 2013).

8 For a careful analysis of this distinction in the science-theology dialogue see (McMullin 2009).

9 On this, see also (Depew 2021, pp. 268–75).

10 The very phrasing of the fifth way and of its other formulations inside Thomas’s writings legitimize the choice of biology as a springboard for Aquinas’s proof from finality—a choice exemplified paradigmatically by the Thomists evoked in our paper. Indeed, the broad umbrella expressions “aliqua quae cognitione carent”, “corpora naturalia”, “ea quae non habent cognitionem” (*Summa theologia*), “id quod intellectu caret vel cognitionem”, “res naturales”, “omne opus naturae” (*Quaestiones de veritate*), “ea quae sunt in rebus naturalibus” (*In Evangelium Ioannis lectura*), obviously encompass the living realm as well. It seems, thus, legitimate to read in a biological light also the expression “omnes convenientes et utilitates” (*Quaestiones de veritate*), which Van Steenberghe translates as “toutes les adaptations et les utilités”—all adaptations and beneficial traits (Van Steenberghe 1980b, p. 56; see note 2 above). That Aquinas also considered—maybe even pre-eminently—biological entities as legitimate starting points of the argument seems to be confirmed by his (critical) reference to Empedocles’s explanation of how *animals* are formed in nature (*Quaestiones de veritate*, see note 2 above), that he contrasts with his Aristotelian defense of natural teleology. An explication of the expression “corpora naturalia” in line with this reading is offered in (Van Steenberghe 1980a, p. 85), emphasis in original: “Il s’agit des corps naturels par opposition aux objets artificiels (*artificialia*), produits de l’ars humain: une maison, une statue, un marteau. Les corps naturels sont, pour S. Thomas, des substances individuelles, qui ont une activité naturelle (*operantur*): animaux, plantes, mais aussi corps mixtes et éléments, conformément à la physique ancienne”.

11 The natural theology/theology of nature distinction is crucial for theology and science (Peters 2005) and, when applied to discourses around biological design arguments, implements Michael Ruse’s quasi-aphoristic statement that reads: “You can go on believing in a designer. It is rather that you are not proving the designer’s existence” (Ruse 2013, p. 405).

12 In formulating this question and the title of our paper, we took inspiration from two works of Michael Ruse: his classic science and religion book *Can a Darwinian be a Christian?* (Ruse 2001) and a review essay (on Darwin’s biography by Desmond and Moore) titled *Will the Real Charles Darwin Please Stand Up?* (Ruse 1993). Our essay is dedicated to him and pays homage to his pioneering studies in the philosophy of biology and in the science–religion dialogue.

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