

Intelligent Design and Some Thomist Philosophers

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Introduction

If one is aware of the impact that the Intelligent Design movement has made over the past decade, then one often thinks of opposition to this movement arising from an atheistic scientific community, liberal cultural thinkers, or anti-theistic philosophers.¹ Recently, however, opposition to the ID movement has arisen vociferously from a handful of Thomist philosophers. This might seem strange given the common ground of theism, but these Thomist scholars put forward some interesting and clarifying objections to ID. One point of contention is whether or not ID science can be made compatible with Aristotelian-Thomistic (A-T) philosophical principles. Some Thomist thinkers reject

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such compatibility. This chapter will look at why thinkers such as Michael Tkcaz, Francis Beckwith and Edward Fesser believe Intelligent Design science is incompatible with their Thomistic philosophy. If they are right, then the fundamental commitments of this project are deeply flawed. I will argue from some of Etienne Gilson's writings that there is at least a version of Thomism (Gilson's) that can be made compatible with ID science, but only if the nature of ID science is specified and A-T philosophical principles are reasonably modified. One of the above Thomists, Feser, endorses Gilson's book *From Aristotle to Darwin and Back Again*. Feser writes, "Gilson shows us that those who glibly suppose that modern biology has refuted Aristotle's doctrine of final causality do not properly understand either. The reprinting of this classic will, we can hope, contribute to the long-overdue

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revival of the philosophy of nature as an active field of study.”² Feser respects Gilson’s writings in the area of teleology and Darwinism, we may assume that he would afford equal respect to Gilson’s other works. If so, then Feser may have reasons to moderate his views on the possible relationship between Thomistic philosophy and ID science.

Aristotle and Aquinas on Final Causality

Before embarking on a debate over whether ID thought is compatible with Aristotle and Aquinas’ views of teleology, it behooves the reader at least to look at what these philosophers thought. Jonathan Lear in his book, *Aristotle: The Desire to Understand*, clarifies Aristotle’s view of causality:

² <http://www.ignatius.com/Products/FADBA-P/from-aristotle-to-darwin-and-back-again.aspx> [accessed August 18, 2012]

[Aristotle] believed that for the generation of natural organisms and for the production artifacts there were at most two causes – form and matter. And matter ultimately has to be relegated to a secondary position, for it is ultimately unintelligible: at each level of organization what we come to understand is the principle of organization or form. The matter provides the brute particularity of an object: it can be perceived, but not understood. . . . He is not then picking out one of four causes for special honor: he is citing the one item, form, which can be considered either as the form it is or as the efficient cause or as the final cause.³

Here Lear is rejecting the view that Aristotle's four causes (formal, efficient, final, and material) are really to be understood as four separate causes; rather there is form and matter and since matter is essentially unintelligible, the intelligibility of a thing is its form. This form, moreover can be considered in three ways; one of them being the final cause. Lear goes on to write,

Aristotle does believe that there is *real* purposefulness in the world. And real

³ Jonathan Lear, *Aristotle: The Desire to Understand* (New York: Cambridge University Press, 1988), 27.

purposefulness requires that the end *somehow* govern the process along the way to its own realization. . . .Form as an actuality is the end or final cause. . . .Our appreciation of purposefulness is not, for Aristotle, a projection of (human) mind onto nature; it is a projection of purposeful, intelligible, ‘mindful’ nature onto the human mind.⁴

It is important to note the type of realism assumed in the Aristotelian metaphysic. The intelligibility of nature impresses itself onto the mind of the observer such that the form of the thing comes to be in the mind of the beholder. The one who appreciates the final cause of an acorn, sees that, if its natural growth is unimpeded, the acorn will transform into an oak tree. There is an inherent intelligibility to this process of change which the human mind picks out and

⁴ Ibid., 40-41. [emphasis in original]

considers; when it considers the oak tree as the end for which the acorn strives it is considering form from the perspective of final causality.⁵

In Aristotle we have a ‘secular’ philosopher considering the nature of final causality. In Thomas Aquinas, who is as famous a theologian as he is a philosopher, we have the notion of final causality considered in relation to God’s existence. Generally known as “the fifth way,” Aquinas argues that the purposefulness of nature (its being ordered to an end), is an effect of the divine mind. He writes,

The fifth way is based on the guidedness of nature. An orderedness of actions to an end is observed in all bodies obeying natural laws, even when they lack awareness. For their behaviour hardly ever varies, and will practically always turn out well; which shows that they truly tend to a goal, and do not merely hit it by accident. Nothing however that lacks awareness tends to a

⁵ Although we may use the language of intentionality, F.C. Copleston points out that the teleology of Aristotle is an “unconscious teleology.” See his *A History of Philosophy, Volume I*, esp. chapter XXIX.

goal, except under the direction of someone with awareness and with understanding; the arrow, for example, requires an archer. Everything in nature, therefore, is directed to its goal by someone with understanding, and this we call 'God.'⁶

According to Aquinas, then, it is enough to notice that there are things in the natural order that “tend to a goal” and that this directedness is not accounted for by the natural beings themselves because it is done without awareness. Though much could be said of Aristotle and Aquinas’ views of final causality, the above quotations are in place to give the reader some small example of their thoughts. The differences between teleology and ID science were elucidated earlier, but if one wants to make the case that Aquinas’ view is incompatible with ID, it is good to have his writings before us.

Certainly Dembski is aware that there is a difference between his scientific project and Aquinas’

⁶ Thomas Aquinas, *Summa Theologiae*, Ia.Q2.a3, trans.

philosophical one (though his language at times does not always maintain this distinction). Recall that Dembski has written, “One of the consequences of methodological naturalism is to exclude intelligent design from science. Teleology and design, though perhaps real in some metaphysical sense, are, according to methodological naturalism, not proper subjects for inquiry in the natural sciences.”⁷ Here he conflates teleology with ID science. Elsewhere he displays more sensitivity between the boundaries of philosophy and science. He writes, “The design argument is at its heart a philosophical and theological argument. It attempts to establish the existence and attributes of an intelligent cause behind the world based on certain features in the world. By contrast, the design inference is a generic argument for identifying the effects of intelligence regardless of the intelligence’s

Timothy McDermott (New York: Cambridge University Press, 2006), 17.

⁷ Dembski, *The Design Revolution*, 170.

particular characteristics and regardless of where, when, how or why the intelligence acts.”⁸ This implies that Dembski is aware to some degree of the methodological differences between philosophy and his scientific work in ID.

The different methodologies distinguish a philosophical-metaphysical approach to the organization of natural beings and the type of information found in specific biochemical structures. This difference is significant because some Thomist philosophers insist on chastising Dembski for having a flawed philosophy of nature, namely mechanism, which cannot be reconciled to an A-T philosophy of nature. But Dembski is clear about this when he writes,

In focusing on the machinelike features of organisms, *intelligent design is not advocating a mechanistic conception of life.* To attribute such a conception of life to

⁸ Ibid., 77.

intelligent design is to commit the fallacy of composition. Just because a house is made of bricks doesn't mean that the house itself is a brick. Likewise, just because certain biological structures can properly be described as machines doesn't mean that an organism that includes those structures is a machine. Intelligent design focuses on the machinelike aspects of life because those aspects are scientifically tractable and are precisely the ones that the opponents of design purport to explain by physical mechanisms.⁹

Here Dembski affirms that his view of ID does not commit one to a broader mechanistic philosophy of nature or “conception of life.” It is yet to be seen whether allowing for a mechanistic view of some biological structures can be reconciled to A-T philosophical principles. Some scholars say ‘no’.

⁹ William A. Dembski, *The Design Revolution*, 152. [emphasis added]

The Level of the Data

It will be important later to recognize that Dembski's view of ID relies on data of a certain type. As was mentioned before, it must be small-scale biochemical data that lends itself to information-probability analysis that is fed through the explanatory filter. Dembski goes on to explain the type of data that is most easily appropriated by his analytic tool.

He writes,

One might say that Darwinists have traditionally hidden behind the complexities of biological systems to shelter their theory from critical scrutiny. Choose a biological system that is too complex, and one can't even begin to calculate the probabilities associated with its evolution. . . . Michael Behe's great coup was to identify a class of simpler biological systems for which it is easier to assess the probabilistic hurdles that must be overcome for them to evolve. . . . But even with irreducibly complex biochemical systems (vastly simpler though they are than individual retinal cells, to say nothing of the eye itself), complexities quickly mount and become unwieldy. . . . Proteins reside at just the right level of complexity and simplicity to determine, at

least in some cases, their probability of evolving by Darwinian processes.¹⁰

This means that far from making observations of the processes taking place at the level of the organism or even an entire organ, Dembski's statistical approach to inferring design relies on very small-scale biological data at the level of biochemistry or molecular biology. This is well below the threshold of biology that impinges directly on a philosophy of nature looking at the final causality of organisms.

Just to confirm that this small-scale approach is his intended approach we can look at one more quotation that comes as a response to some criticism. Responding to an article by Mary Midgley¹¹, Dembski writes, "It is remarkable that Midgley refers to organisms as consisting of 'continuous tissue' as though this undercuts the ID proponents' 'mechanical analogy.' *ID stakes its claim at*

¹⁰ Ibid., 195-196.

the level of molecular biology, not at the level of ‘continuous tissues.’ At the level of molecular biology, we have protein machines that are machines literally and not just analogically.”¹² This idea of protein machines being machines “literally and not just analogically” does seem to be the sort of mechanistic language to which a Thomist would object. We must determine if Dembski’s scientific project commits him to such a view or not. If not, then the above statement can be ameliorated to fit with the Thomistic view. Perhaps, in context, Dembski is not espousing a mechanistic philosophy of nature, which he elsewhere denies. Rather it seems that he is emphasizing the literal goal-oriented nature of biochemical systems that those of a neo-Darwinian bent constantly deny. If this is the case then Dembski has stated his case somewhat

¹¹ www.dur.ac.uk/resources/ias/IntelligentDesignArticle.doc; accessed August 18, 2012.

¹² <http://www.uncommondescent.com/intelligent-design/mary-midgley-id-is-going-to-give-us-a-great-deal-of-trouble/> posted December 2, 2007; accessed April 26, 2010.

imprecisely, but it is not evidence that his ID science is incompatible with a non-mechanistic philosophy of nature.

Not everyone, however, is pleased with the ID movement and below we will explore several thinkers who have criticisms, some valid, of ID argumentation. Below we will look at Michael Tkacz's general criticisms as to why ID theory cannot be reconciled in principle with Aquinas' philosophical theology due to his view of divine action and natural causation.

Michael Tkacz's Thomistic Objections

Due to considerations of space, this section will provide representative quotations from an article Tkacz has written in order to criticize ID from the point of Thomism. Instead of providing a thoroughly original analysis, there is a rebuttal to Tkacz from Thomist and Discovery Institute fellow Jay W. Richards which will be excerpted below.

In an article titled “Aquinas vs. Intelligent Design,” Michael W. Tkacz, philosopher at Gonzaga University, takes pains to explain to the reader that, according to Aquinas, creation is not a change of some sort wherein a pre-existing material is modified into something else. He says, “*Creatio non est mutatio* says Aquinas: The act of creation is not some species of change. . . . Creation is not a change. Creation is a cause, but of a very different, indeed unique, kind. Only if one avoids the Cosmogonical Fallacy is one able to correctly understand the Christian doctrine of Creation ex nihilo.”¹³ This “cosmogonical fallacy” can be extended into one’s view of the natural process of organisms. Tkacz goes on to say,

A large quadruped mammal, such as a hippopotamus, gives live birth to its young. Why? Well, we could answer this by saying that “God does it.” Yet, this could only mean that God created the hippopotamus—indeed the mammalian order—with the

¹³ <http://www.catholic.com/thisrock/2008/0811fea4.asp> accessed April 27, 2010.

morphology, genetic makeup, etc. that are the causes of its giving live birth. God does not "reach into" the normal operations of hippopotamuses to cause them to give live birth. Were one to think that "God does it" means that God intervenes in nature in this way, one would be guilty of the Cosmogonical Fallacy.

Now, if this distinction between the being of something and its operation is correct, then nature and her operations are independent in the sense that nature operates according to the way she is, not because something outside of her is acting on her. God does not act on nature the way a human being might act on an artifact to change it. Rather, God causes natural beings to be in such a way that they work the way they do.¹⁴

Tkacz is concerned that one not have the impression that God, in order to keep natural operations going consistently, actively "makes" them do what they do by nature at all times. On such a view, natural order is not established because God has provided things with particular natures then allows them to act according to their kind, but rather that God "reaches into" nature in so that it is indeed

orderly. Tkacz is correct that such a view, something like an occasionalist view, would be wholly incompatible with Aquinas' essentialist philosophy of nature.

Finally, Tkacz charges ID with being founded on the cosmogonical fallacy and using god of the gaps reasoning. He states, "It would seem that ID theory is grounded on the Cosmogonical Fallacy. Many who oppose the standard Darwinian account of biological evolution identify creation with divine intervention into nature. . . . This insistence that creation must mean that God has periodically produced new and distinct forms of life is to confuse the fact of creation with the manner or mode of the development of natural beings in the universe. This is the Cosmogonical Fallacy." He ends his article with the commentary,

Insofar as ID theory represents a "god of the gaps" view, then it is inconsistent with the Catholic intellectual tradition. Thanks to the

¹⁴ Ibid.

insights of Aquinas and his many followers throughout the ages, Catholics have available to them a clearer and more consistent understanding of Creation. If Catholics avail themselves of this Thomistic tradition, they will have no need to resort to "god of the gaps" arguments to defend the teachings of the faith. They will also have a more complete and harmonious understanding of the relationship of the Catholic faith to scientific reason.¹⁵

Tkacz's article focuses on the cosmogonical fallacy or misunderstandings that can arise when one thinks about the causal relation of God to his creation. If Tkacz is right then the central question is: Does Intelligent Design scientific reasoning commit this fallacy by confusing the unique causal activity of God in creation with natural changes? As we will see, Jay Richards responds with a resounding 'no'. One point to be made, however, is that those who follow in the Thomistic tradition may not see the need for arguments like those that ID science raises. I believe that if one understands the metaphysical realism of Aquinas, then the

¹⁵ Ibid.

sort of materialist assumptions that motivate the conclusions of many modern scientists will be exposed as untenable. But thinking that one's philosophy is more powerful than a body of scientific research does not, of itself, render this evidence irrelevant or unimportant.

In his article specifically responding to Tkacz, Jay W. Richards explains that there is another aspect to God's causal activity between the unique act of creation and the natural causes that arise due to the essences given to natural beings. In a section entitled, "**Creation *Ex Nihilo* Isn't the Whole Story**," Richards points out,

Thomas considers creation *ex nihilo* to be the pre-eminent meaning of the word "create." And it distinguishes God's creative power from the kind of "creation" of which human beings are capable. As he puts it: "To create [in the unique sense attributable to God] is, properly speaking, to cause or produce the being of things." (*ST* I:45:6). In other words, God doesn't just take a pre-existing substratum and fashion it, as does the Demiurge in Plato's *Timaeus*. God calls the universe into existence without using pre-existing space, matter, time, or anything else. So when he creates the universe from

nothing, God's creative act does not involve changing one thing into another, as Tkacz notes.¹⁶

It is not the case that Richards disagrees with the fundamental philosophical theology of the nature of God's creative power. Along with Tkacz, Richards recognizes that God's power of creation ex nihilo is to "produce the being of things" or to produce the act of existing by which a particular type of being exists. Though he understands and agrees with this doctrine as Tkacz does, Richards does not see this doctrine God's creative activity is in conflict with other types of activities of God. He writes,

But as we've already seen, for Thomas (and Christianity for that matter), this isn't the only thing God does. It's not God's only mode of action. . . . God made Eve, according to St. Thomas, not ex nihilo, but from Adam's rib, which obviously pre-existed Eve. These actions may not be "creation properly speaking," but they involve God exercising his creative power in

¹⁶http://www.evolutionnews.org/2010/04/response_to_michael_tkacz_cri.html, posted April 26, 2010; accessed April 27, 2010.

a different but still direct way within the created order.

God takes matter and does something with it that it wouldn't do on its own. Call it "making," "crafting," "producing," "quasi-creating," "fashioning," "fiddling," "tinkering," "breaking the rules," or whatever you like. But contrary to Tkacz's assertion, the "Thomistic understanding of divine agency" (assuming that locution refers to Thomas' view of the matter, in conformity with the settled teaching of the Church) includes God creating *ex nihilo* both initially and subsequent to his initial creation of the world, his acting directly in nature—sometimes using pre-existing material—and his acting through secondary causes. And by implication, this would include every permutation of these options.¹⁷

It seems that Richards has mounted a satisfactory response.

Tkacz made his central thesis the idea that ID commits the cosmogonical fallacy because it misrepresents God's causal relationship with his creation. Richards has shown that while Tkacz is correct that Aquinas presents creation *ex nihilo* as the "pre-eminent meaning for the word 'create'" it

¹⁷ Ibid.

is not the only understanding of the way in which God causally interacts with the created order. As not just a philosopher but a theologian, Aquinas accepts the veracity of the Bible including God fashioning Eve from Adam's rib. Though, as Richards points out, this is not creation *ex nihilo*, it is an example of God directly causing a change in the natural order by means other than natural causes or natural beings interacting in some way. He says, "God takes matter and does something with it that it wouldn't do on its own."

Besides successfully rebutting Tkacz's main objection to ID theory, Richards also gives the reader insight into how Tkacz could, while committed to the same body of Thomistic thought, come to conclusion vastly different than Richards' own (or Thomas' it seems).

Richards explains, "Tkacz is a so-called "River Forest" Thomist. This school of Thomists interprets Thomas in a highly Aristotelian fashion. Other Thomists disagree with

them.” Because of this emphasis on Aristotelian elements in Thomas, the naturalism in Aristotle’s thought tends to supplant St. Thomas’ dedication to revelation. Richards concludes, “Tkacz’s assertions look more like deductions from naturalism, rigid Aristotelianism, or a hybrid of the two, than like implications of Thomism. Naturalism and orthodox Aristotelianism seem to require that everything in nature have a cause within nature, because there aren’t any other possibilities. . . . In Tkacz’s article, I think we’re dealing with an overbearing Aristotelianism refracted through modern naturalistic science.”¹⁸ I would agree with Richards. As we will see later in the response to Feser, there are some Thomists, e.g. Gilson, that think the Aristotelianism in Thomism needs to be moderated in order to make Thomism more consistent with its own fundamental principles.

¹⁸ Ibid.

Francis Beckwith's Doubt about Intelligent Design

On the website *The BioLogos Forum*, Francis Beckwith has posted a two-part essay related to his early involvement and subsequent distancing from the Intelligent Design movement. He mentions Michael Tkacz as one of the Thomistic thinkers that has influenced his current position so hearing echoes of Tkacz in Beckwith's article should be expected. This section will be dedicated to looking at Beckwith's unease and offering an analysis and rebuttal of several issues he raises. In part II of the essay Beckwith states,

. . . IDers, like Dembski and Behe, and atheists, like Richard Dawkins and Jerry Coyne, wind up agreeing that without "gaps" in nature belief in an intelligent designer is not justified. The IDer thinks he can fill the gaps with intelligent agents;

Thomists and many other Christian philosophers do not accept this philosophy of nature. For them, design is immanent in the universe, and thus even an evolutionary account of the development of life requires a universe teeming with final causes. What is a final cause? It is a thing's purpose or end.

So, for example, even if one can provide an evolutionary account of the development of the human lungs without any recourse to an intervening intelligence, there remains the fact that the lungs develop for a particular purpose, the exchange of oxygen for the sake of the organism's survival. This fact, of course, does not contravene the discoveries of modern biology. And neither does it mean that final causes should be inserted into scientific theories. All it means is that the deliverances of the sciences—even if needing no intelligent intervention to be complete—are not nature's whole story.¹⁹

Beckwith's article is a good example of some of the confusion that ID sometimes inspires. According to what was presented above as the essence of Dembski's thought, the formal analysis that makes ID what it is, requires certain data at the level of biochemistry/molecular biology which lends itself to the complexity-specification criterion and the explanatory filter. Beckwith has taken this formal scientific analysis for Dembski's *philosophy of nature*, but one may accept such an analysis while denying it

¹⁹ <http://biologos.org/blog/intelligent-design-and-me-part-ii->

represents a broader philosophy of nature, as Dembski does explicitly.

It must be said that Beckwith's confusion is well-founded because there are some instances wherein ID proponents do not make clear the demarcations, for example, between science and philosophy. For example, in his *Design of Life*, Dembski defines Intelligent Design as, "The study of patterns in nature that are best explained as the product of intelligence."²⁰ This definition of ID is much more ambiguous than the explanations given later in the book. Defining ID as "the study of patterns in nature" does not clearly distinguish its method and conclusion from similar *philosophical* arguments, though Dembski clearly does recognize this distinction. The point here is that one need not regard Dembski's more rigorous scientific work as

confessions-of-a-doting-thomist/ posted March 20, 2010; accessed April 27, 2010.

²⁰ William Dembski and Jonathan Wells, *The Design of Life: Discovering Signs of Life in Biological Systems* (Dallas; Foundation for Thought and Ethics, 2008), 3.

philosophical. Beckwith's language indicates that Dembski thinks specified complexity and his explanatory filter can or should be applied to the whole of "nature's order, including its laws and principles," when this is clearly not the case. Dembski has admitted above that the filter must only be applied selectively to data of a certain type so as to pick out earmarks of design and eliminate chance.

Finally, it seems that Beckwith's concerned about ID science relying on 'gaps in nature.' He states above, "IDers, like Dembski and Behe, and atheists, like Richard Dawkins and Jerry Coyne, wind up agreeing that without 'gaps' in nature *belief in an intelligent designer is not justified.*" Because he has taken Dembski's position as his philosophy of nature (which is obvious from the next line, "Thomists and many other Christian philosophers do not accept this philosophy of nature") he thinks that Dembski's ID argument constitutes philosophical justification for the Designer's existence. But if the earlier analysis of ID

science is correct, Dembski is taking our intuitions of design in biology and turning them into, a formal *scientific* analysis. If this is the case, then Beckwith's concern is unfounded because the "justification" at issue is a narrow, scientific one, *not* a philosophical one. I agree with Beckwith's view that if ID fails as a *scientific* justification for belief in an intelligent designer, we would still have the whole tradition of Aristotelian-Thomism at our disposal to argue against philosophical naturalism. But above he confuses the scientific role of ID and potential philosophical consequences of the scientific theory.

If this analysis of Beckwith is correct then his last point does not follow. That is, he says that some Thomists and other Christian philosophers reject ID as a justification for belief in a Designer because we have philosophical recourse to final causality. He goes on to say, "And neither does it mean that final causes should be inserted into scientific theories. All it means is that the deliverances of

the sciences—even if needing no intelligent intervention to be complete—are not nature’s whole story.” This just means that the Thomist and Christian philosophers have *philosophical* justifications for accepting final causality and the orderliness of nature apart from any ID arguments. This is true, but one also need not reject ID arguments in order to preserve A-T notions of final causality. They do not occupy overlapping conceptual space. They are different modes of investigation that end up converging on the same facet of reality. ID science does this in a limited scientific mode and Thomism does this in a more general philosophical mode.

There is a deeper concern that a Thomist should have with Beckwith’s position, however, and it strikes at the heart of adopting a neo-Darwinian scientific theory along with a Thomistic philosophy of nature. Beckwith seems to indicate that one can be happy as a philosophical Thomist and accept neo-Darwinian theory. In the above

quote he writes, “For them [Thomists and Christian philosophers], design is immanent in the universe, and thus even an evolutionary account of the development of life requires a universe teeming with final causes.” Beckwith indicates that one can be a Thomist holding to final causality and evolutionary theory, but is this accurate? There are reasons to think it is not. In an article titled “Can a Thomist be a Darwinist?” philosopher Logan Gage points to several things between neo-Darwinian theory and Thomism that are fundamentally incompatible. He writes,

The first conflict between Darwinism and Thomism, then, is the denial of true species or essences. For the Thomist, this denial is a grave error, because the essence of the individual (the species in the Aristotelian sense) is the true object of knowledge. As Benjamin Wiker observes in *Moral Darwinism*, Darwin reduces species to “mere epiphenomena of matter in motion.” What we call a “dog,” in other words, is really just an arbitrary snapshot of the way things look at present...there is no species “dog” but only a collection of individuals, connected in a long chain of changing

shapes, which happen to resemble each other today but will not tomorrow.²¹

If, at the level of the individual organism, neo-Darwinian theory holds there is really nothing but an accidental shape wherein individuals come to resemble one another and no real metaphysical reality they share, then this biological theory seems more consistent with nominalism than essentialism. Perhaps Gage is a bit hyperbolic when he writes “the essence of the individual is the true object of knowledge” for this has a bit of rationalist overtone. It might be more precisely stated, ‘the universal abstracted from the individual of a particular kind is the sole object of the intellect.’ This is better stated because it does not imply that sense cognition is of an inferior type of knowledge (as rationalism implies). Gage’s point remains, however, that if there are no real species then there are not real specific differences by which we define the essence/nature of a

²¹ Logan Paul Gage, “Can a Thomist be a Darwinist?” in *God*

thing. A biological theory that commits one to a nominalist view seems more radically divergent from Thomism than a theory that purports to identify mathematical markers for design given the nature of a specific type of information (CSI) found in some molecular biological systems.

Gage sees that there is another potential conflict between neo-Darwinian theory and a Thomistic philosophy of nature. He comments,

The second conflict is very similar to the first. The Thomist, as we have seen, is committed to the reality of universals, for universals are the objects of higher knowledge. But it is not only the existence of species which Darwinism destroys; it is also their stability.

Darwinian Theory posits that all living things are related through one or very few ancestors (referred to as “Universal Common Ancestry”) via solely material processes. But if living things have unchangeable essences, how can these living things change (or “transform”) in to other living things though mere material causes?²²

and Evolution, ed. Jay Richards (Seattle, WA: Discovery Institute Press, 2010), 190.

²² *Ibid.*, 192.

Again, and this is solely personal proclivity, I find Gage's terminology less precise than it could be. When he writes that universals are the "objects of higher knowledge" it is perhaps better to think of universals as "more abstract objects of human reason." This, again, is simple to halt any underlying rationalist tendencies that have crept in from modernity. While it is true that the knowledge of a thing's nature is abstract metaphysical knowledge, the term "higher knowledge" implies that less abstract, more sensible knowledge is "lower knowledge." This in turn could imply that sense knowledge is somehow inferior to knowledge that is purely intellectual, which is false. This is why I prefer to cast the discussion in terms of knowledge that is more or less abstract rather than "higher" and "lower."

Despite this jousting over terminology, Gage makes another good point, namely, that even if one could espouse some type of essence or species from neo-Darwinism, there is no way that the term would include the idea of

permanence or stability, which it most certainly does for Aristotle and Aquinas. Gage concludes, “Thus those defending the tradition of natural philosophy found in Aristotle and St. Thomas simply cannot accept transformism...”²³

It seems that Beckwith’s concerns that ID theory leads to a poor philosophy of nature are eclipsed by the more inimical threat that Darwinian theory poses to A-T metaphysical and epistemological realism. And Tkacz’s criticisms, that ID entails views of divine causation at odds with Thomism, have been met with satisfactory responses. In the next section, William Dembski’s work comes under direct scrutiny by another Thomist thinker, Edward Feser. To these criticisms we now turn.

²³ Ibid., 193.

Edward Feser's Objections to ID Science

Edward Feser, a professor of philosophy at Pasadena City College, is a Thomist philosopher who has recently taken an interest in highlighting the dangers inherent in contemporary Intelligent Design science. Since Feser's critique of ID is the most recent on the web it and is directed specifically at William Dembski's work, it will be fruitful to look at it in depth. Assumedly, if one can find grounds for defending Dembski's position from Feser's fundamental concerns, then one should rest comfortable in the compatibility of ID science and A-T philosophy. This section will be broken down into 1) Feser's A-T model and his angst over a mechanistic view of nature and 2) His specific criticism of Dembski's ID science.

Feser's A-T Model and Angst over Mechanism

Feser has recently published a book defending the Aristotelian-Thomistic approach to just about everything.

He says in his work *The Last Superstition*, “How significant is Aristotle? Well, I wouldn’t want to exaggerate, so let me put it this way: *Abandoning Aristotelianism, as the founders of modern philosophy did, was the single greatest mistake ever made in the entire history of Western thought...* this abandonment has contributed to the civilizational crisis through which the West has been living for several centuries...”²⁴ Anyone interested in a contemporary defense of A-T philosophical principles and the practical and philosophical consequences of abandoning them will appreciate Feser’s work.

When it comes to the articulation of Aristotelian essentialism and modern science, for example, Feser sides unashamedly with Aristotle. He writes,

...to affirm the existence in physical phenomena of inherent powers or capacities is to acknowledge phenomena that are directed at or point to states of affairs

²⁴ Edward Feser, *The Last Superstition: A Refutation of the New Atheism* (South Bend, IN; St. Augustine Press, 2008), 51. [emphasis in original]

beyond themselves. For example, to be fragile is to point to or be directed at *breaking*, and a fragile thing of its nature points to or is directed at this particular state even if it is never in fact realized. To be soluble is to point at or be directed a *dissolving*, and a soluble thing of its nature points to or is directed at this particular state even if it is never in fact realized. And so forth...It is also amazing that the persistence of final causality within the purportedly mechanistic modern physics is not more generally acknowledged...²⁵

This quotation shows that, for Feser, it is Aristotelianism all the way down. There is no place for a mechanistic view of natural substances even at the level of physics and (given the solubility example) chemistry. For Feser, even aspects of science like fragility and solubility should be recognized as being examples of final causality. But earlier Gilson recognized that treating something in a way that ignores final causality is incomplete but it is not false. Therefore, the modern chemist might ignore aspects of final causality in his method of studying chemical reactions, but this only

²⁵ Ibid., 263-264.

makes is view of chemical reactions philosophically uninformed (“incomplete”), not mistaken.

Feser’s criticism of the modern philosophy of nature seems correct. He argues that modern philosophers replaced Aristotle’s natural forms for a view of nature in which everything is machinelike. He writes,

That is to say, one must substitute for common sense the idea that a natural substance is a kind of artifact. One must think of plants and animals, solar systems and galaxies, as comparable to (say) mousetraps, watches, or outboard motors. And that is, of course, exactly what the “mechanical” conception of the world that the early modern philosophers put in place of the Scholastics’ Aristotelian philosophy of nature made possible. The world was reconceived as a machine or collection of machines. Break a natural object down into its parts and identify the efficient-causal relations holding between them, and you know (so the moderns claim) everything there is to know about its *intrinsic* nature.²⁶

²⁶<http://edwardfeser.blogspot.com/2010/04/nothing-but.html>, accessed April 29, 2010. [emphasis in original]

He goes on to note that this view of nature as an artifact means that, as opposed to the A-T conception, the natural order could go on existing in the absence of the artist. This, he believes lead to deism and then eventually to either atheism or a very poor theology that is incompatible with A-T. Given his traditional Aristotelian philosophy of science and allergy to mechanism of any degree, distaste for contemporary ID science is perhaps inevitable. His reference to “mousetraps, watches, or outboard motors” (icons of ID thinking) shows that in Feser’s mind ID proponents are inextricably linked to the same modernistic thinking that historically abandoned Aristotle, to the detriment of Western thought.

He writes more explicitly after stating that modern science cannot avoid implying the metaphysics of Aristotle, “Please note that this has nothing whatsoever to do with “irreducible complexity” or any of the other Paleyan red herrings familiar from the debate over “Intelligent Design,”

whose advocates foolishly concede the mechanistic assumptions of their opponents.”²⁷ As we will see below, there is a modification to Aristotelian thinking that does more justice to the nature of some of the modern sciences *qua* sciences, and provides a way to look at ID science that makes it consistent with the A-T tradition.

It is perhaps understandable that as Feser is critiquing the “new atheists” for ignoring teleology, he discards anything that does not help in this essentially philosophical debate. He is correct, as Beckwith is correct, that a proper understanding of metaphysical and epistemological realism means that the insufficiency of naturalism as a metaphysic will be patent. Thus, there is no need for the convinced Thomist to rely on the sciences to tell him about the nature of final causality (since it is presupposed by all the sciences). Nevertheless, it is also not a proof of ID science’s illegitimacy to say that it does

²⁷ Feser, *The Last Superstition*, 255.

not have the power of a more robust philosophical argument. Below we will see the proper attitude that a Thomist should have regarding ID science.

Feser's Criticism of Dembski's ID Science

If Francis Beckwith's concern over ID was misperceiving it as a broader philosophy of science and Michael Tkacz's concern was rooted in his view of A-T causation, then Feser's criticisms can be seen as a combination of these with the specific concern over Dembski's commitment to a mechanistic philosophy of nature that is fundamentally at odds with Scholasticism. Feser writes, "The A-T critique of Paley and of ID theory has nothing whatsoever to do with Darwinism – Aristotle and Aquinas were not Darwinians, after all – and it has nothing to do either with any objection to probabilistic arguments for God's existence *per se*. It has to do instead with the metaphysical and theological errors A-T sees as implicit in the methodological assumptions underlying Paley's "design argument" and contemporary

ID theory.”²⁸ Presumably, since Feser does not have “any objection to probabilistic arguments for God’s existence *per se*” if one could provide an account of ID science that neither commits one to a mechanistic philosophy of nature nor commits obvious metaphysical or theological errors, it should satisfy Feser’s concerns. Just such an account will be provided below. We will look first at the specific criticism of Dembski’s work that Feser has publicized on the web.

Feser criticizes Dembski for having a view of the nature of life that conflicts with A-T philosophical principles. He writes,

Dembski goes on explicitly to acknowledge that just as “the art of shipbuilding is not in the wood that constitutes the ship” and “the art of making statues is not in the stone out of which statues are made,” “so too, *the theory of intelligent design contends that the art of building life is not in the physical stuff that constitutes life but requires a designer*”

²⁸<http://edwardfeser.blogspot.com/2010/04/nothing-but.html>, accessed April 29, 2010.

(emphasis added). And there you have it: Living things are for ID theory to be modeled on ships and statues, the products of *techne* or “art,” whose characteristic “information” is not “internal” to them but must be “imposed” from “outside.” And that *just is* what A-T philosophers mean by a “mechanistic” conception of life.

The way God creates living things, then, is the same way He creates everything else, viz. by conjoining an essence to an act of existence, which in the case of material things (including plants and animals) entails conjoining a certain kind of prime matter/substantial form composite to an act of existence.²⁹

In the Dembski quote nested in Feser’s article, Dembski explicitly talks about ‘the art of building life’ not the creation of life or the “conception of life”. Feser moves from the “physical stuff” that Dembski refers to, to the notion of ‘living things’ implying, contrary to the intent in Dembski’s quote, that Dembski has a mechanistic concept of life. Furthermore, in an online post responding to Feser’s criticism, Dembski states, “ID’s critique of

naturalism and Darwinism *should not be viewed as offering a metaphysics of nature* but rather as a subversive strategy for unseating naturalism/Darwinism on their own terms.”³⁰ This is the same mistake that Beckwith makes, that is, interpreting the scientific theoretic of ID as a philosophy of nature, which Dembski explicitly denies. Further, if, when Feser refers to “the way God creates living things” if this is talking about creation “properly speaking” (as Tkacz referred to), then yes this is just what creation in its most metaphysically basic sense. But Jay Richards has already pointed out in the example of God ‘making’ (not creating *per se*) Eve from Adam’s rib, that God can engage in ‘making’ as well as ‘creating.’ In this case, the end result is still an act of existence conjoined to a certain kind of prime matter/substantial form, but the

²⁹ Ibid.

³⁰ <http://www.uncommondescent.com/intelligent-design/does-id-presuppose-a-mechanistic-view-of-nature>, accessed April 29, 2010, [emphasis added]

“making” is from something pre-existent. I fail to see the essential incompatibility here.

Besides confusing ID science with a philosophy of nature, Feser misunderstands the limits of Dembski’s project. He criticizes Dembski’s ID approach because it leaves out things that, under the A-T model, obviously count as examples of design. Feser writes,

For example, at p. 140 of *The Design Revolution*, Dembski flatly asserts that “lawlike [regularities] of nature” such as “water’s propensity to freeze below a certain temperature” are “as readily deemed brute facts of nature as artifacts of design” and thus “can never decisively implicate design”; only “specified complexity” can do that. But for A-T, such regularities are paradigm examples of final causality.... Even the simplest causal regularities thus suffice “decisively” to show that there must be a supreme ordering intelligence keeping efficient causes directed toward their ends from instant to instant, at least if Aquinas’s Fifth Way is successful.³¹

³¹<http://edwardfeser.blogspot.com/2010/04/nothing-but.html>, accessed April 29, 2010. [emphasis in original]

Keeping in mind Dembski's project is helpful here. The fact that, in Dembski's case, he is looking for a type of information that indicates an intelligent source means that he cannot point to things of a certain type (remember, given his project he cannot even take the organized operations of an entire organ like the human eye as a case for design because "the complexities [would] quickly mount and become unwieldy.") For example, as a theist Dembski would surely agree that salt crystals were ultimately created by God (as all things are), but because of their repeating structure (low information content) they cannot be *proved*, via his filter, as being designed and therefore could just as easily be "deemed brute facts of nature" by his antagonistic naturalistic interlocutor. So, he looks for evidence that does have the right type of information content (CSI).

Feser is content to denigrate Dembski for not arguing philosophically for the A-T view. Feser says of lawlike regularities, "But for A-T, such regularities are

paradigm examples of final causality...” Only if one thinks that ID science should shoulder the burden of a philosophical proof for teleology does this criticism make sense. This is really a simple category mistake. It is not incoherent to say, ‘For Dembski’s scientific analysis to go through, he cannot use the regularity of water freezing as the proper data, but for the A-T philosopher water freezing constitutes an example of final causality.’ They do not conflict as science and philosophy; they only conflict if ID is misrepresented as a mechanistic philosophy of nature. Feser may believe that one does not need ID science to argue against naturalism because it is far poorer and limited in both content and scope. He may be right that A-T should be the preferred method for dealing decisive blows to naturalism, but this does not make ID science wrong or incompatible with A-T principles.

One final quote from Feser will highlight the sort of mechanistic philosophy he thinks ID is committed to and

set the stage for showing how Dembski's work, read through Etienne Gilson, can satisfy Feser's frustrations. On Dembski's mechanistic tendencies Feser writes,

that the ambiguity in question here – denying mechanism in some places while affirming it in others – has parallels elsewhere in Dembski's work. . . . Dembski seems intent on sidestepping potential objections by making ID as flexible as possible, so long as the word “design” is preserved. This explains why some readers assume that there is nothing in ID that is incompatible with A-T metaphysics. But imprecision and incoherence are not the same as compatibility. And amidst all the ambiguity, Dembski's commitment to an essentially mechanistic conception of nature (as A-T understands “mechanistic”) stands out as one of the more consistent themes of his work.³²

This quote is important because it does raise some valid criticisms of Dembski's presentation of the nature of ID. Sometimes his terminology indicates that perceiving the design in a chair is the same sort of thing as perceiving that

³² <http://edwardfeser.blogspot.com/2010/04/intelligent-design-theory-and-mechanism.html> accessed April 29, 2010.

the bacterial flagella was designed, but these sorts of perceptions are obviously different. One does not need an explanatory filter to determine that a chair was designed. Our justification of such an assertion would take a more philosophical rather than scientific turn. Similarly, we saw in the chapter on ID science that most of Dembski's criteria for picking out specified complexity are mathematical in nature. We criticized some of the quotes by Dembski and Meyer for not keeping ID science distinct from the metaphysical issue of teleology. Regardless, Feser's criticism raises the question: How could Dembski possibly be justified in rejecting the sort of mechanistic philosophy of life that naturalists (a la Dawkins and Dennett) employ since it seems that his ID science is committed to just that view? Why does Dembski seem to support a mechanistic view and reject it at the same time? Further, how could any A-T model, which wholly rejects a mechanistic view of life, be made consistent with ID science? These questions

will be answered below by referring to the thought of Etienne Gilson.

A Gilsonian Moderation of ID Science and A-T Philosophy

As a thinker who is interested in Thomistic philosophy and the philosophy of science, I have sympathy for both frustrated Thomist philosophers and ID proponents in this debate. As a Thomist, I am eager to filter out of my thinking any negative vestiges of modern thought that lead to its unfortunate philosophical cul-de-sacs. As a Christian philosopher, I am eager to find resources from history, philosophy, or science that may be of aid in arguing against anti-theistic sentiment. If there is a way to harmonize Thomistic thought with a version of ID science, then it would be valuable. Fortunately, respected Thomistic philosopher and historian, Etienne Gilson, provides the tool for just such a harmonization. As we will see, Gilson

recommends a modification of both mechanism and Aristotelianism.

Gilson's Modification

To those unfamiliar with Etienne Gilson's work as a historian or philosopher, it should be noted that he was fond of looking at the history of thought in terms of "philosophical experiments."³³ These experiments show which ideas accurately describe reality and which ones lead us astray into absurdity (conceptually) or despair (practically). With this in mind, we will begin by reading Gilson's critique of Aristotelianism in the history of science. He writes,

It is generally agreed that the only branches of positive knowledge in which Aristotelianism has been responsible for some progress are those connected with morphology and the functions of living

³³ See especially his *The Unity of Philosophical Experience* (San Francisco, Ignatius Press, 1964).

creatures. . . . Struck by the dominant role of form in the living creature he [Aristotle] made it not only a principle for explaining the phenomena of life, but extended it beyond living beings to mobile beings in general. . . This is what explains the relative sterility of scholastic philosophy in the field of physics and even in that of chemistry...³⁴

Gilson here admits that because Aristotle generalized the idea of form from the biological world to “mobile beings in general” this led to its “relative sterility” in physics and chemistry. This might lead one to believe that one must abandon A-T in favor of a more ‘productive’ scientific worldview; such was the response of the modern era.

Gilson, however, counters this thought when he writes,

We are not therefore required to get rid of the hylomorphism of inorganic beings, but what seems to be needed is a clear distinction between the notion of organic form and that of inorganic form. *Formae naturales sunt actiuae et quasi vivae* [natural forms are active and quasi-living], said the Scholastics. Between Cartesian “artificialism” which turned animals into

³⁴ Etienne Gilson, *Methodical Realism* (Front Royal, VA: Christendom Press, 1990), 101.

machines, and Aristotelian vitalism which treated physical bodies as if they were animals, *it should be possible to find room for mechanism in the physical order and vitalism in the biological.* Every “nature” requires a formal principle, but not every form is a living form.³⁵

This is an amazing example of a thinker who is committed to truth above all else. Where his philosophical tradition has fallen short because of issues unforeseen by its founders, Gilson makes a healthy modification that can accommodate the fruits from the modern sciences of physics and chemistry but leave the perennial philosophy of the scholastic tradition firmly in place. Gilson says explicitly that it does not require one to give up A-T metaphysics to admit that one can treat the physical order different from the biological order, “not every form is a living form.” Whereas Feser is committed Aristotelian vitalism against any sort of mechanistic philosophy, Gilson

³⁵ Ibid., 104.[emphasis added]

implies that treating inorganic being as though living is a misrepresentation of its being.

A question remains: how are A-T philosophical principles affected by this modification? Gilson explains,

...it is apparent that the failure of medieval physics leaves the value of its philosophy untouched...Nothing ties it to Ptolemy's astronomy, to geocentrism, to explaining the movements of heavenly bodies by the propulsive power of heavenly intelligences. It has no obligation to believe with St. Thomas that bodies receive from their substantial forms a pre-determined inclination towards a particular spot...No one is so wrong-headed as not to recognize that what is false is false. Not only does all this scientific rubbish deserve to collapse, as it has already collapsed, but everything in the metaphysical and psychological order based on it necessarily collapses with it. Therefore, a revaluation of the medieval tradition must start with its principles...to put them freely to the test in order to discover their value as a means of explaining reality and to see how far it extends.³⁶

³⁶ Ibid., 105-106.

The implication by Gilson is that one need not wed Thomistic philosophical principles to bad scientific applications. In fact one could make the argument that if Aquinas were aware of modern science he would make the same division between mechanism and vitalism that Gilson argues for. Take, for example, what Aquinas says here,

Now with respect to the manner of acting, every action of a soul must transcend the operation or action of an inanimate nature. For every operation of a soul must proceed from some intrinsic agent, because an action of a soul is a vital action...However, so far as the effect produced is concerned, not every action of a soul transcends an action of the nature of an inanimate thing. For the effect produced, that is, a natural mode of existing (*esse naturale*), and the things necessary for it, must be present in the case of inanimate bodies just as they are in the case of animate ones. But in the case of inanimate bodies, the effect is brought about by an extrinsic agent, whereas in the case of animate bodies, it is caused by an intrinsic agent.³⁷

³⁷ Thomas Aquinas, *The Soul*, lec. XIII, trans. John Patrick Rowan (St. Louis: B. Herder Book Co., 1949), 166.

Notice that Aquinas recognizes that the distinction between inanimate and animate beings is that the former is moved by an extrinsic cause while the latter is moved by an intrinsic cause. In the previous quote by Gilson, he indicates that Aquinas' view of, for example, the heavenly bodies was "by the propulsive power of heavenly intelligences." This means that Aquinas is under the false impression that the heavenly bodies move by some intrinsic vital force rather than being moved by forces extrinsic to them, as with all inanimate objects. What do we mean by a mechanistic view of some natural phenomena other than that each phase of change is conditioned by the forces/factors extrinsic to the things and their nature? That is, what makes frozen water melt is not some animate, intrinsic desire by water. It is rather simply the nature of the water and the external factors (e.g. air temperature) acting upon it extrinsically. This gives us some evidence that Gilson's view is one that Aquinas might have held

were he aware of the truly inanimate nature of some natural phenomena.

As metaphysical principles, here Feser and Beckwith are correct, the A-T views of being, existence, essence, potentiality and actuality stand firm. It does not matter how many ‘gaps’ are filled in by modern science in explaining physical causes in nature. Modern science, if allowed to dominate as a worldview, will always lead to a worldview destitute of any justifiable metaphysical ground.

Gilson is quite aware of this, he writes,

Science can account for many things in the world; it may some day account for all that which the world of phenomena actually is. But why anything at all is, or exists, science knows not, precisely because it cannot even ask the question. To this supreme question, the only conceivable answer is that each and every particular existential energy, each and every particular existing thing, depends for its existence upon a pure Act of existence.³⁸

³⁸ Etienne Gilson, *God and Philosophy* (New Haven, CT; Yale University Press, 2002), 139-140.

Let man have a comprehensive scientific explanation for all natural phenomena and it will not touch one bit the need for a true metaphysical reflection on why such a collection of natural beings exist in the first place or how they continue to exist. Maritain says something similar about what he calls a “positivistic view” of science. I add it here only because it is a very poignant way of making the same point. He writes, “the positivistic scientist, the scientist as positivism conceives him, would wind up analyzing the real perfectly in the quantitative and material order, yet on one condition: that he deal only with the corpses of reality.”³⁹ This point, made in the context of the relation between modern science and philosophy of nature, is essentially the same as Gilson’s above. Modern science cannot become a self-sufficient metaphysics because it lacks the resources for addressing the metaphysical grounds

³⁹ Jacques Maritain, *Philosophy of Nature* (New York: Philosophical Library, 1951), 53-54.

of its own existence. This is the task of philosophy of nature and metaphysics proper. In these areas Aquinas is still very relevant.

A Gilsonian View of ID Science

Above, Dembski was criticized by several philosophers for having a mechanistic view of life. Particularly, Feser indicated that Dembski is inconsistent in sometimes holding to a mechanistic view and sometimes rejecting it. Having presented Gilson's modification to the A-T model so that one can look at things in physics and chemistry mechanistically and yet retain an A-T "vitalism" in the biological order, it seems that one can explain Dembski's apparent inconsistency. That is, because he is doing his science at the level of biochemistry/molecular biology, he can look at these objects mechanistically without being committed to a mechanistic 'conception of life.' Recall that Dembski has written, "just because certain biological

structures can properly be described as machines doesn't mean that an organism that includes those structures is a machine." These "biological structures" fall below the threshold of what we call 'living beings'.

This raises the question: Can Dembski's work come under the refuge of Gilson's analysis since he is working at the level of proteins and these are biological in nature not 'inorganic' as Gilson says? The level of science that Dembski is working with is admittedly at the level of biochemistry. This can be taken as biological but the proteins themselves are not 'living beings' but components of living beings. Unlike, say, viruses, proteins do not have the power of intentional self-movement, which seems to be the dividing line between the inorganic and the organic in Aristotelian thought. Though his work can be seen as 'biological' in nature, according to the gist of Gilson's thought, it seems that Dembski's focus on molecular biology/biochemistry places him at a level more similar to

physics and chemistry then, say, zoology. Because of this, Dembski's work can avail itself of the modification Gilson supplies and, according to Gilson, be made consistent with A-T metaphysics.

Finally, the use that ID science makes in pointing to the similarities between machines and the machine-like workings of biological subsystems is not illegitimate in Thomistic thinking. Gilson says, "Machines are artificial imitations of organisms."⁴⁰ Gilson says that in looking at what the artist does in making his artifacts we see an imperfect imitation of what things in nature do naturally. He writes,

The analogy with art, then, assists us to recognize the presence in nature of a cause analogous to that which is intelligence in the operations of man, but we do not know what this cause is....Mysterious or not, the fact is there. It is not incomprehensible because of its complexity, which we can only hope science will one day clarify, but because of

⁴⁰ Gilson, *From Aristotle to Darwin and Back Again*, 146.

its very nature, which does not allow it to be expressed in a formula.⁴¹

Here is Gilson stating that final causality in nature is essentially mysterious. Of itself, we do not know from whence it arises except that the cause is “analogous to that which is intelligence in the operations of man.” Second, he indicates that someday science will be able to clarify the complexity of nature and even when it does this, final causality will remain a metaphysical and not a mathematical reality. For those who think that ID science with its analysis of CSI just is the concepts of teleology, Gilson is an opponent. But, as was argued earlier, if we maintain the conceptual distinctions between a scientific analysis of complexity on the one hand and unknown cause of teleology in nature which resembles human intelligence as it is present in human machines, Gilson would agree.

⁴¹ Ibid., 13-14.

Conclusion

The purpose of this chapter was to take a closer look at some of the debates which have raged online and in print over the potential relationship between ID science and the philosophical traditions founded of Aristotle and St. Thomas Aquinas. In looking at the thoughts of philosophers such as Michael Tkacz, Francis Beckwith, and Edward Feser we saw that objections to ID, and specifically to Dembski's work, tend to rest on the misconception that ID science is synonymous with a philosophy of nature and entails a mechanistic philosophy of nature that is incompatible with the A-T philosophical tradition. In the rebuttal to Tkacz, Jay Richards reminds us that Aquinas has a broader view of divine causality than what is entailed by 'creation proper.' Beckwith and Feser are united in their view that ID is a philosophy of nature that lacks the power and scope of Aquinas' original project. Their criticisms hinge on a mischaracterization of ID science that ID

proponents sometimes invite due to a lack of precision. Given all of this, however, we found evidence in the writings of Gilson that he believes that one can sufficiently modify one's philosophy of nature to allow for mechanism in modern science at the level of physics and chemistry without being committed to a mechanistic view of biology. We also saw that there is some indication that Aquinas might whole-heartedly agree.

Some of the conflict between ID and Thomists can be ameliorated if ID is carefully limited to its scientific role and not confused with issues of final causality, which is a metaphysical perception. This issue was dealt with in an earlier chapter. It is obvious that Gilson would have rejected any suggestion that ID is the same as teleology, but also that he highly valued the use of mathematics in the sciences. He states, "...mathematics provides science with its most perfect mode of expression, and it also turns out that there is nothing more human than that mathematical

formulation of knowledge. . . . The more science becomes mathematical, the more anthropomorphic it is, and it is for the scientist a cause of wonderment that the certitude and efficacy of his hold on nature grows in direct proportion as the language of science, itself mathematicized, satisfies more completely the abstract exigencies of his mind.”⁴² I think Gilson would have had room in his Thomism for a scientific theory that points to the reality of teleology.

⁴² Gilson, *From Aristotle to Darwin and Back Again*, 158.