DOI:10.1111/j.1741-2005.2012.01494.x

Natural Final Causality and Providence in Aquinas

Corey L. Barnes

Abstract

Thomas Aquinas articulated an understanding of nature that sought to maintain together the integrity of created causality and God's providential ordering of the cosmos. Developing and combining Aristotelian and Neoplatonic approaches to nature and to final causality, Thomas formulated a horizontal or linear final causality wrapped within a larger vertical or circular final causality. This formulation balanced two seemingly opposed principles. First, that natures operate through intrinsic principles toward determinate ends. Second, that non-cognitive agents must be directed toward an end extrinsically. Aquinas balanced these two principles by situating the first within the second such that God creates and directs natures toward determinate ends through divinely bestowed principles intrinsic to those natures. In this way, Aquinas's understanding of providence underlies his approach to nature.

Keywords

Aquinas, providence, nature, final causality, teleology

In his commentary on Aristotle's *Physics*, Thomas Aquinas follows the Stagirite in distinguishing nature (*physis*, *natura*) and art or craft (*techne*, *ars*).[1] Natural things possess an innate principle of change indicative of an orientation toward a determinate end (*telos*, *finis*) intrinsic to nature. Artifacts lack any innate principle of change as artifacts and only possess extrinsic determinate ends. Aquinas thus follows Aristotle in affirming that art imitates nature. Later in the same commentary, Thomas complicates this picture considerably by

[1] Torrell dates Thomas's commentary on the *Physics* to the second Parisian regency (1268–1269), a year earlier than supported by Weisheipl. See Jean-Pierre Torrell, *Saint Thomas Aquinas, Vol. 1: The Person and His Works*, trans. R. Royal (Washington, D.C.: Catholic University of American Press, 1996), pp. 231–233 and James Weisheipl, *Friar Thomas d'Aquino: His Life, Thought and Work* (Garden City, NY: Doubleday, 1974), pp. 375–376.

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https://doi.org/10.1111/j.1741-2005.2012.01494.x Published online by Cambridge University Press

presenting nature as the divine art and as moved to its determinate end extrinsically. Acting for the sake of an end, he argues, requires ordering by some intellect. Aquinas thus follows Plato in presenting nature as an imitation of art. Surface appearances to the contrary, Thomas's employment of both Aristotelian and Platonic conceptions of nature does not imply some internal contradiction or merely *ad hoc* approach to questions of nature. Rather, it reflects typical scholastic strategies and specific theological concerns.

Scholastic presentations of nature responded to diverse commitments, often laboring to integrate Aristotelian and Platonic understandings of nature with each other and with a rich inheritance of Christian reflection on theological topics. Thomas Aquinas's presentations of nature prove no exception. Ludger Honnefelder has argued that Aquinas's efforts to integrate Aristotelian and Platonic views of nature were part of a general scholastic trend related to three theological topics: 1) creation *ex nihilo*, 2) the essence of creation and creator, and 3) the relationship of nature and grace.[2] To Honnefelder's list of theological topics, providence should be added.[3] Thomas crafted a robust understanding of natural final causality that set the foundations both for scientific examination of natural phenomena and for God's providential ordering and disposing of created causes according to their intrinsic modes. Aquinas accomplished this by distinguishing and connecting two basic levels or shapes of final causality, one horizontal or linear, the other vertical or circular.[4]

Nature, Aquinas comments, "is nothing other than the design (*ratio*) of some art, namely the divine, implanted in things by which they are moved to their determinate ends."[5] In characteristic manner, Thomas here succinctly encapsulates a truly remarkable collection

[2] Ludger Honnefelder, "The Concept of Nature in Medieval Metaphysics," in *Nature in Medieval Thought: Some Approaches East and West*, ed. C. Koyama (Leiden-Boston-Köln: E.J. Brill, 2000), pp. 75–93, at p. 75.

[3] Gelber offers a clear and useful introduction to scholastic views on providence and their relation to Aristotle's *Physics* in Hester Goodenough Gelber, "Providence," in *The Cambridge History of Medieval Philosophy, Volume II*, ed. R. Pasnau (Cambridge: Cambridge University Press, 2010), pp. 761–772. Aertsen examines nature and providence in Aquinas in Jan Aertsen, *Nature and Creature: Thomas Aquinas's Way of Thought* (Leiden: E.J.Brill, 1988), pp. 350–360.

[4] This terminology loosely follows Rosemann, who employs the terminological pairs of horizontal-vertical and linear-circular in analyzing scholastic uses of Platonic, Aristotelian, and Neoplatonic understandings of causality. See Philipp Rosemann, *Omne Agens Agit Sibi Simile: A "Repetition" of Scholastic Metaphysics* (Leuven: Leuven University Press, 1996), pp. 63–101. Rosemann finds in Aristotle a similar combination of distinct levels of finality in which the internal finalities of individuals lead to the universal finality of "unity and sameness" (Rosemann, *Omne Agens*, p. 43).

[5] Thomas Aquinas, *In Physic*. II, l.14, n.8, p. 96 (*In Octo Libros Physicorum Aristotelis Expositio, Opera omnia, t.2* [Rome: Ex Typografia Polyglotta, 1884]): "natura nihil est aliud quam ratio cuiusdam artis, scilicet divinae, indita rebus, qua ipsae res moventur ad finem determinatum."

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of philosophical and theological commitments. Nature possesses an intrinsic causal integrity ordered according to a divine purpose. Providence, in short, operates in and through nature. This is a point particularly worth stressing given that discussions of providence often enough focus on explaining together or even on reconciling providence and human free will as if there were not work to be done regarding the harmony between providence and non-rational agents.[6] Failure to take seriously the task of maintaining both nature's causal integrity and its providential ordering reflects an impoverished conception of nature quite at odds with Aquinas's own conception. To be sure, Thomas's discussions of providence stress God's unique ability to move a free will interiorly, but even this notion grows out of his fundamental conviction that every created cause receives its intrinsic causal mode and integrity from God who works in and through created causality. For Aquinas art imitates nature imitating art.

Before turning to Thomas's presentations of natural final causality, a few prefatory remarks about final causality in nature are in order.[7] It is commonly held that many seventeenth-century philosophers and scientists, notably Descartes and Spinoza, rejected the notion of final causes operative in nature or in cases of non-voluntary agents.[8] Monte Johnson has argued that the likes of Descartes and Spinoza were not so much rejecting Aristotle's understanding of final causality as rejecting late-medieval and Renaissance understandings. Johnson presents scholastics, and Aquinas in particular, as shifting the role of final causality from explaining natural phenomena scientifically to proving the existence of God as the necessary condition for natural phenomena.[9] There are two things worth emphasizing here. First, as Anneliese Maier has argued, the rejection of final

[6] Aquinas certainly does not neglect the particular difficulties of holding together providence and human free will but rather devotes much attention to the task in systematic works (e.g., *Summa contra Gentiles* and *Summa theologiae*) and in biblical commentaries (*Literal Exposition on Job*).

[7] For general introductions to final causality in nature, see Richard Hessing, "Introduction," in *Final Causality in Nature and Human Affairs* (Washington, DC: The Catholic University of America Press, 1997), pp. 1–51 and James McEvoy, "The Teleological Perspective upon Nature," in *Finalité et Intentionnalité: Doctrine Thomiste et Perspectives Modernes*, ed. J. Follon and J. McEvoy (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 1992), pp. 1–8.

[8] John Carriero formulates a subtle reading of final causality in early-modern thought in conversation with Aristotelian and Scholastic understandings of final causality in "Spinoza on Final Causality," in *Oxford Studies in Early Modern Philosophy*, vol. 2, ed. D. Garber and S. Nadler (Oxford: Clarendon Press, 2006), pp. 105–147.

[9] Monte R. Johnson, *Aristotle on Teleology* (Oxford: Clarendon Press, 2005), pp. 15–28, especially p. 23. Johnson labels this the theological perspective on final causality. He also notes the danger of misreading natural final causality in Aristotle according to a "heuristic perspective" that views final causes as aids to understanding that are metaphysically reducible to material or efficient causes (Johnson, *Aristotle on Teleology*, p. 15).

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causality in nature by William Ockham and John Buridan foreshadowed seventeenth-century views of nature and represented a break with earlier scholastic views.[10] Second, Thomas does not shift the role of final causality away from explaining natural phenomena scientifically but rather folds this Aristotelian understanding of nature within the larger movement of God's final causality of all creation.[11] While Aquinas does use final causality as one way of proving God's existence, that is hardly a focus in his discussions of final causality.[12] Instead, Thomas devises a rich causal matrix in which the various types of causes often coincide or cooperate, in which every thing in the causal sequence functions as an end explaining the causality of the causes, and in which the individual causes within nature all contribute to and are caused by nature as an end. Nature as itself an end can also be explained in terms of God as the ultimate end of all things. Aquinas's causal matrix thus intends to explain natural final causality in the horizontal or linear sense within the larger movement of natural final causality in the vertical or circular sense.

Art Imitating Nature

Knowing something scientifically requires knowing its *propter quid*, its *on account of what*, and knowing the *propter quid* means knowing the cause. Things can and do have multiple causes, so complete or perfect knowledge necessitates knowing all the causes accounting for something.[13] Aristotle, Thomas comments with approval, reduced causality (or strategies of explanation) to four types: material,

[10] Anneliese Maier, "Philosophy of Nature at the End of the Middle Ages," *Philosophy Today* 5 (1961), pp. 92–107; "Das Problem der Finalkausalität um 1320," in *Metaphisische Hintergrunde der Spätscholastischen Naturphilosophie* (Rome, 1955), pp. 273–299.

[11] Lang argues that Aquinas's commentary on the *Physics* enacts a procedural reversal of Aristotelian teleology, thereby transforming physics from a science of nature as principle of motion into a science of motion terminating in God as the first source. See Helen Lang, "Aristotle's Physics: Teleological Method and Its Medieval Half-life," in *Knowledge and the Sciences in Medieval Philosophy: Proceedings of the Eighth International Congress of Medieval Philosophy (S.I.E.P.M.)*, vol. 3, ed. R. Työrinoja, A. Inkeri Lehtinen, and D. Føllesdal (Helsinki: Annals of the Finnish Society for Missiology and Ecumenics, 1990), pp. 103–110.

[12] Final causality does provide the fifth way from *ST* I, q.2, a.3 but this 'proof' represents a miniscule portion of Thomas's larger discussions of final causality. See Jacques Follon, "Le finalisme chez Aristote et S. Thomas," in *Finalité et intentionnalité*, pp. 11–39. On debates about reading Aquinas's five ways as proofs, see D. Turner, *Faith, Reason and the Existence of* God (Cambridge: Cambridge University Press, 2004). A more obvious or at least more extensive example of using final causality for proving God's existence can be found in John Duns Scotus's *De primo principio*. Using final causality within a proof for God's existence need in no way limit or prevent using final causality in other contexts and for other purposes.

[13] Aquinas argues that "many definitions are assigned to any one thing according to diverse causes, but the complete definition encompasses all the causes (*aliquando unius*

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formal, efficient, and final.[14] Depending on the object of investigation and the aims of the science, complete knowledge necessitates knowing various of these causal types. "Mathematics does not perform demonstrations except through formal causes. Metaphysics performs demonstrations through formal and final causes in particular though also through the agent [efficient cause]. Natural [philosophy performs demonstrations] through all the causes."[15] Since natural scientific knowledge pertains to all the causes, it requires knowing the final cause. As we will see, however, Thomas regards knowledge of the final cause as not simply one type of causal explanation alongside others but rather as the foundation or even the very explanation for the other causes. Before addressing this point, we must explore the basic notion of final causality and how it distinguishes natural phenomena from chance occurrences and artificial phenomena.

When analyzing the Aristotelian classifications of causality, Aquinas writes that "something is called a cause as *end*, and this is the *cause for which* something is, as health is called [the end or cause] of walking."[16] Ends are causes that respond with particular directness to the query *propter quid*, in a clear sense granting ends explanatory priority over other causes. Thomas addresses further questions about what can function causally as an end and whether final causality requires deliberation, but these questions will be bracketed momentarily. Let it suffice for now to note that everything between the first mover and the ultimate end is itself an intermediate end. With this inclusive understanding of ends in mind, we can examine how ends illuminate the distinction between nature, art, chance, and fortune.

Natures possess intrinsic principles of motion and rest, whereas artifacts possess merely extrinsic principles of motion and rest insofar as they are artifacts. The basic point is easily illustrated. Iron possesses an innate or intrinsic principle of downward motion. An iron knife moves downward not by virtue of being a knife but by virtue of being iron. The knife's downward motion is extrinsic to its

rei assignatur plures definitiones secundum diversas causas; sed perfecta definitio omnes causas complectitur)" (*In Physic*. II, l.5, n.7, p. 70).

[14] As Johnson rightly notes, Aristotle's term *aition* is perhaps better translated as 'explanation' than as 'cause' (Johnson, *Aristotle on Teleology*, pp. 40–41).

[15] *In Physic*. I, l.1, n.5, p. 5: "Nam mathematica non demonstrat nisi per causam formalem; metaphysica demonstrat per causam formalem et finalem praecipue, et etiam agentem; naturalis autem per omnes causas."

[16] *In Physic*. II, l.5, n.6, p. 70: "aliquid dicitur causa ut *finis*; et hoc est *cuius causa* aliquid fit, sicut sanitas dicitur ambulationis." *In Meta*. V, l.2, n.771, p. 212 (*In Duodecim Libros Metaphysicorum Aristotelis Expositio*, ed. M.-R. Cathala and R.M. Spiazzi [Taurini and Romae: Marietti, 1964]): "Nam haec quaestio quare, vel propter quid, quaerit de causa: cum enim quaeritur quare, vel propter quid ambulat, convenienter respondentes dicimus, ut sanetur."

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being a knife but intrinsic to its being iron. The principle of motion or rest can be specified as an orientation toward a determinate end. Iron's intrinsic principle of motion or rest is its innate orientation toward the earth's centre as the lowest point (in Aristotle's and Aquinas's conception of the cosmos). A knife receives from its artist or craftsman its artificial form according to which its specific use (i.e. cutting) is its determinate end. On account of what does a knife have its particular form? On account of cutting. Using a knife to cut is the determinate end of a knife insofar as it is a knife.[17]

Some things, Aquinas also notes, can be adequately explained neither as occurrences from nature nor as occurrences from art. Such are the effects of chance and fortune, which offer an additional point of contrast to nature and correspondingly an opportunity to refine the operative understanding of nature. Effects caused by nature happen always or regularly; effects subject to fortune or chance happen infrequently or sporadically.[18] Aquinas limits instances of fortune to cases involving voluntary agents while chance extends to involuntary and even to inanimate agents. Defending final causality in cases of fortune proves an easy task. Granting that fortune applies to voluntary actions and that voluntary actions require a freely willed intention (*propositum*), fortune can be described with respect to intended and unintended ends.[19] In other words, occurrences from fortune can be explained as on account of some end. Similarly, Thomas declares, "chance happens in those things which are on account of something," and chance occurrences share this with what happens for no reason (*vanum*).[20] Chance pertains to occurrences within the workings of nature that are somehow outside the intention of nature, as a person born with six digits. Chance occurrences, just like natural occurrences, have intrinsic accidental causes. Occurrences from fortune, in contrast, have extrinsic accidental causes.[21] This characterization yields an interesting parallel. Chance and fortune are accidental intrinsic and extrinsic causes respectively. The parallels to chance and fortune at the level of *per se* causes are nature and intelligence. The

[17] In *Summa contra Gentiles* III, c.2, Thomas argues that an agent's end can either be something produced by an action or the action itself.

[18] See *In Physic*. II, l.8, n.208.

[19] *In Physic*. II, l.10, n.5, p. 84: "Et dicit quod propter hoc quod fortuna non est nisi in his quae voluntarie agunt, inde est quod neque inanimatum neque puer neque bestia, cum non agant voluntarie quasi liberum arbitrium habentes (quod hic dicit *propositum*), non agunt a fortuna."

[20] *In Physic*. II, l.10, n.9, p. 85: "casus accidat in his quae sunt propter aliquid."

[21] *In Physic*. II, l.10, n.10, p. 85: "Cum enim aliquid fit extra naturam in operationibus naturae, puta cum nascitur sextus digitus, tunc non dicimus quod fiat a fortuna, sed magis ab eo quod et per se frustra, idest a casu. Et sic possumus accipere aliam differentiam inter casum et fortunam, quod eorum quae sunt a casu, causa est intrinseca, sicut eorum quae sunt a natura; eorum vero quae sunt a fortuna, causa est extrinseca, sicut et eorum quae sunt a proposito."

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first point to stress here is that Aquinas establishes a basic distinction between the intrinsic causality of nature and the extrinsic causality of intelligence that recalls the distinction between nature and art. The second point to mention is that Aquinas continues his commentary by arguing that chance and fortune frustrate an inferior cause's intention and that this very frustration can be ordered by a superior cause (*In Physic*. II, l.10, n.13, p. 115). Thomas's argumentation here reflects his views on God's providential ordering of creation (*ST* I, q.22).

Aquinas begins his argument with an affirmation that natures possess intrinsic principles of continuous motion or rest. The regularity of natural operations testifies to these intrinsic principles. Artifacts, in contrast, possess only extrinsic principles of motion insofar as they are artifacts. Thomas eventually distinguishes causes from nature and causes from intelligence according as the former are intrinsic and the latter extrinsic. All occurrences, whether from nature or from intelligence, whether from chance or from fortune, are actions on account of something (*propter quid*) and can be explained through final causes. As Thomas notes, every thing between the prime mover and the ultimate end also serves as an end or a cause for which (*cuius causa*).[22] Not every end is the ultimate end; intermediary ends are ends in respect of something.[23] This represents one specific type of final causality, a type related to secondary causes within the created order. Here Aquinas is fully committed to explaining natural phenomena scientifically through final causality. Before turning to the vertical or circular aspect of natural final causality, it will be worthwhile to consider Aquinas's responses to denials of final causality in nature.

The regularity of natural occurrences indicates that the intrinsic principles of continuous motion or rest in natures operate for determinate ends. Some would object that acting for the sake of an end requires deliberation. Aquinas illustrates his counter-argument based upon art or craft. The artist or craftsman acts for the sake of an end but only deliberates when his artistry or craft fails him. A scribe need not deliberate about the formation of each and every character. The scribal art, properly learned, eliminates the need for deliberation by instilling in the scribe a definite medium through which to act. A well established art imitates nature, because natures act through a definite medium and so require no deliberation. Art or craft involves

[22] *In Physic*. II, l.5, n.6, p. 70: "Et ulterius addit quod omnia quae sunt intermedia inter primum movens et ultimum finem, omnia sunt quodammodo fines."

[23] *In Physic*. II, l.5, n.6, p. 70: "Et hoc inducit ne aliquis credat quod solum id quod est ultimum sit causa sicut *cuius gratia*, propter hoc quod hoc nomen finis ultimum quoddam esse videtur. Est igitur omnis finis ultimum non simpliciter, sed respectu alicuius."

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deliberation only insofar as the art or craft fails to imitate nature sufficiently.[24]

Aquinas also dispatches other objections to final causality within nature, for example the objection that a cause must temporally precede its effect. This would seem to rule out ends as properly causal.[25] One and the same thing can be prior and posterior in different respects; determinate ends as the causes of other causes are prior according to reason even if posterior in being.[26] This priority according to reason marks an essential feature of final causality in Aquinas's thought. Final causes do not simply provide explanations of effects but rather provide explanations of causes.[27] Thomas frequently designates final causality the cause of causes (*causa causarum*). This essential feature of final causality reveals two important aspects of Aquinas's understanding. First, since scientific knowledge requires knowledge of causes and perfect knowledge requires knowledge of all the causes, final causality is not simply one piece of scientific knowledge but in some sense the very foundation for it. Second, Thomas's repeated stress on final causality as the cause of causes indicates its importance in his understanding of the causality of nature as a whole in the divine creative act. Much emphasis is frequently and justifiably placed on the act of creation as the imparting of *esse* and form, an emphasis that obviously stresses efficient and formal causality.[28] But, it must be constantly remembered that the cause of

[24] *In Physic*. II, l.14, n.8, p. 96: "manifestum est quod ars agit propter aliquid; et tamen manifestum est quod ars non deliberat. Nec artifex deliberat inquantum habet artem, sed inquantum deficit a certitudine artis: unde artes certissimae non deliberant, sicut scriptor non deliberat quomodo debeat formare litteras. Et illi etiam artifices qui deliberant, postquam invenerunt certum principium artis, in exequendo non deliberant: unde citharaedus, si in tangendo quamlibet chordam deliberaret, imperitissimus videretur. Ex quo patet quod non deliberare contingit alicui agenti, non quia agit propter finem, sed quia habet determinata media per quae agit. Unde et natura, quia habet determinata media per quae agit, propter hoc non deliberat. In nullo enim alio natura ab arte videtur differre, nisi quia natura est principium intrinsecum, et ars est principium extrinsecum."

[25] Specifying ends as final *causes* raises this question of temporal sequence, whereas regarding ends as *explanations* of occurrences raises fewer problems of temporal sequence and 'reverse' causation.

[26] *In Physic*. II, l.5, n.7, p. 70: "Nihil enim prohibet aliquid esse prius et posterius altero secundum diversas rationes: finis enim est prius secundum raionem, sed posterius in esse; agens autem e converso. Et similiter forma est prior quam materia secundum rationem complementi, materia autem est prius quam forma generatione et tempore in omni eo quod movetur de potentia in actum."

[27] *In Meta*. V, l.2, n.775, p. 213: "Est igitur efficiens causa finis, finis autem causa efficientis. Efficiens est causa finis quantum ad esse quidem, quia movendo perducit efficiens ad hoc, quod sit finis. Finis autem est causa efficientis non quantum ad esse, sed quantum ad rationem causalitas."

[28] Victor Salas stresses this twofold aspect in "The Twofold Character of Thomas Aquinas's Analogy of Being," *International Philosophical Quarterly* 49 (2009), pp. 295–315.

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this efficient and formal causality is the divine goodness serving as final cause.

This reveals a fundamental connection between Platonic and Aristotelian aspects to Aquinas's view of nature and natural final causality, but it also reveals a fundamental connection to specific Christian doctrines, especially providence. Through this specific combination of Platonic and Aristotelian schemes, Aquinas stresses the integrity and dignity of natural causality within a framework of God's providential ordering of natural causality. God is the perfect artist, and the divine art creates nature with such causal integrity and such intrinsic ends that nature itself becomes the object of imitation by human art.

The Final Cause of Nature

There are two things particularly relevant to Aquinas's discussion of the final cause of nature. First is his distinction between the ultimate end and all intermediary ends. The ultimate end is the Good, which is the final cause functioning as the cause of causes, the most fundamental explanation for creation. Second is Aquinas's insistence late in his commentary on book 2 of the *Physics* that an orientation towards a determinate end requires an intelligence doing the ordering. This second point relates directly to Thomas's discussions of providence, which connect the two basic types of natural final causality.

Throughout many of his writings, Aquinas characterizes final causality or the end as the cause of causes (*causa causarum*). Several textual locations stand out, including the commentary on the *Physics*, the commentary on the *Metaphysics*, and the *Summa theologiae*.[29] In the horizontal direction, the final cause can often be identified with the formal cause. An end, Thomas notes, is not simply the last thing (*ultimum*) but must be the cause for which (*cuius causa*) something is. Form is the end of matter just as use is the end of form.[30] In generation, the formal and final causes are "one in number" because the "end of human generation is the human form." The human form is the end of human generation but is not the end of a human being.[31] Again, every effect is in some sense an intermediary end

[29] See *In Physic*. II, l.5, n.11; *In Meta*. V, l.3, n.782; *ST* I, q.5, a.2, *ad* 1.

[30] *In Physic*. II, l.4, n.8, p. 66: "Ex quo possumus accipere quod sic se habet materia ad formam, sicut forma ad usum. Sed usus est cuius causa fit artificiatum: ergo et forma est cuius causa est materia in artificialibus. Et sicut in his quae sunt secundum artem, nos facimus materiam propter opus artis, quod est ipsum artificiatum; ita in naturalibus materia inest a natura non a nobis facta, nihilominus eundem habens ordinem ad formam, scilicet quod est propter formam."

[31] *In Physic*. II, l.11, n.2, p. 88: "Dicit ergo primo quod multoties contingit quod tres causae concurrunt in unam, ita quod causa formalis et finalis sint una secundum numerum.

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exercising final causality between the causality of the prime mover and the ultimate end. In the horizontal direction, final causality functions to explain scientifically the causal chain of natural processes by explaining the occurrence of these intermediary ends. Not surprisingly, Aquinas focuses on this horizontal level of final causality in his commentary on the *Physics*. Final causality in the vertical direction receives greater attention in Thomas's commentary on Dionysius's *De divinis nominibus* and in the *Summa theologiae*.

Unlike all intermediary ends, the ultimate end is not ordered to any other end. In the *Summa* Thomas argues that God "is ordered to nothing as to an end but rather is the ultimate end of all things."[32] The divine name of the Good conveys this, because the Good carries with it the *ratio* of an end. In *Summa theologiae* I, q.5, a.4, Aquinas derives several interesting conclusions for the Good as end:

> The *ratio* of the good presupposes the *ratio* of the efficient cause and the *ratio* of the formal cause, for we observe that what is first in [the order of] causing is last in [the order of] the caused . . . . In [the order of] causing the first thing discovered is the good and the end; the second is the action of the efficient [cause] moving to the form; the third is the form's advent. The order is reversed in the thing caused. First is the form itself through which the thing is a being; second the effective power, according to which it is perfect in *esse* . . . , is considered in it; third follows the *ratio* of the good, through which perfection is established in being.[33]

Thomas here sketches a circle of causation beginning and ending with the Good as the ultimate end and cause of causes. This circle of causation fits well with Aquinas's remarks in his commentary on the *De divinis nominibus*, where he makes the following elucidation of Dionysius:

> [Dionysius] assigns the cause of this order in affirming that the divine *goodness turns back all things to itself*, for things owe their very order

Et hoc intelligendum est de causa finali rei generatae. Finis enim generationis hominis est forma humana; non tamen finis hominis est forma eius, sed per formam suam convenit sibi operari ad finem."

[32] *ST* I, q.6, a.3, p. 35a (*Summa theologiae* [Ottawa: Comissio Piana, 1953): "Ipse etiam ad nihil aliud ordinatur sicut ad finem, sed ipse est ultimus finis omnium rerum." See also *De veritate* q.5, a.2.

[33] *ST* I, q.5, a.4, p. 30a: "Dicendum quod cum bonum sit quod omnia appetunt, hoc autem habet rationem finis; manifestum est quod bonum rationem finis importat. Sed tamen ratio boni praesupponit rationem causae efficientis et rationem causae formalis. Videmus enim quod id quod est primum in causando, ultimum est in causato . . . . In causando autem primum invenitur bonum et finis, qui movet efficientem; secundo, actio efficientis, movens ad formam; tertio advenit forma. Unde e converso esse oportet in causato, quod primum sit ipsa forma, per quam est ens; secundo consideratur in ea virtus effectiva, secundum quod est perfectum in esse . . . ; tertio consequitur ratio boni, per quam in ente perfectio fundatur."

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> into God from God. Things are, as it were, dispersed and segregated in so far as they are ordered into their own diverse ends, but inasmuch as they share in an order to an ultimate end, they are gathered together. In turning back all things to itself, the divine goodness principally gathers together everything dispersed, just as *deity* principally *vivifies*. Next, when he says: *et omnia* and the rest, he assigns the *ratio* of the order: all things are turned back into [the good] inasmuch as *all things desire* [the good] in a threefold manner: *as* active *principal*; and *as moderating*, that is as preserving things; and *as end*. This is the threefold manner of desire. We desire God as principal because good comes to us from God. We desire God as moderating because good is preserved for us by God. And, we desire God as the end we intend to obtain.[34]

This quotation relates directly to Aquinas's understanding of providence, but before turning to providence in the *Summa theologiae*, it will prove useful to consider one further point from Thomas's commentary on the *Physics*.

Thomas's defense of natural final causality (*In Physic*. 2, l.12–14) distinguishes what happens from nature and what happens from intelligence. Again, his main point is to stress that natures possess intrinsic principles of continuous motion or rest that are oriented towards a determinate end. This guarantees the causal dignity of nature. Embedded within this defense is a brief remark that might seem to counter the overall thrust of that very defense. At the beginning of lectio 12, Aquinas includes this: "Those things that do not cognitively recognize an end do not strive after an end except as directed by someone who does cognitively recognize an end, just as an arrow by an archer. Thus, if nature works on account of an end, it necessarily does so as ordered by some intelligence, which is the work of providence."[35] This brief remark, which contains the only mention of

[34] *In De div. nom*. c.4, l.3, pp. 103–104 (*In Librum Beati Dionysii De Divinis Nominibus Expositio* [Taurini and Romae: 1950]): "Causam autem huius ordinis assignat dicens, quod divina *bonitas omnia convertit ad seipsam*: hoc enim ipsum quod res ordinantur in Deum, ab ipso habent. Sunt enim res quasi dispersae et segregatae, secundum quod ad diversos fines proprios ordinantur, sed inquantum communicant in ordine ad ultimum finem, sic congregantur. Divina igitur bonitas, inquantum omnia ad seipsam convertit, est principaliter congregative omnium dispersorum, sicut quaedam *deitas* principaliter *vivifica*. Deinde, cum dicit: *et omnia* et cetera, assignat rationem ordinis: intantum enim omnia convertuntur in ipsum, inqauntum *omnia desiderant* ipsum triplici ratione, scilicet: *ut principium* activum; et *ut continentiam*, idest conservantiam rerum; et *ut finem*, ista est triplex ratio desiderii. Desideramus enim Deum ut principium quia ex eo provenit nobis bonum; ut continentiam quia ex eo conservatur nobis bonum; ut finem quem adipisci intendimus."

[35] *In Physic*. II, l.12, n.1, p. 90: "Dicit ergo primo, quod dicendum primo quod natura est de numero illarum causarum quae propter aliquid agunt. Et hac valet ad quaestionem de providentia. Ea enim quae non cognoscunt finem, non tendunt in finem nisi ut directa ab aliquo cognoscente, sicut sagitta a sagittante: unde si natura operetur propter finem, necesse est quod ab aliquo intelligente ordinetur; quod est providentiae opus." See also *In Meta*. V, l.16, n.1000 and *De veritate* q.5, a.2 for similar arguments.

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providence within his commentary on the *Physics*, strongly suggests that Aquinas intends to harmonize the integrity of final causality within nature with the final causality of God's providential creation. Turning back to the *Summa theologiae* and the commentary on the *De divinis nominibus* confirms this suggestion.

Throughout his commentary on Dionysius, Aquinas notes that order pertains to the very definition of the good because final causality implies an order of things into an end. Thomas's language in these many passages bears a striking resemblance to his discussion of providence from *Summa theologiae* I, q.22, a.1, where he presents providence as the reason of the order of things into an end (*ratio ordinis rerum in finem*). This is interesting and important in at least two respects. First, Aquinas's presentation of God as the supreme good and thus as the ultimate end of all things intends 'to explain' the divine act of creation. Second, God's final causality of all creation orders creation toward God as the good. When natural final causality is viewed strictly in the horizontal direction, Aquinas emphasizes the integrity and dignity of natures operating through intrinsic principles toward determinate ends. When natural final causality is viewed within the larger movement of God's causality, Aquinas stresses that the workings of nature serve the larger movement of nature toward God as the ultimate end of all things. Thomas combines these two directions or shapes of natural final causality in his understanding of providence, thereby making providence a key doctrine for his integration of Aristotelian and Platonic views of nature.

Jan Aertsen has argued that in Aquinas "[n]ature acts for the sake of something, and this end is nature itself."[36] This fits well with horizontal natural final causality, but to this must be added the qualification that nature itself is not the ultimate end. The entire sequence of horizontal natural final causality is itself ordered toward God as the ultimate end. In his commentary on the *Physics*, Aquinas distinguishes occurrences from nature and occurrences from intelligence. This horizontal discussion fits rather well with the *Summa theologiae*'s treatment of providence, which explains that everything happens according to God's infallible will and primary or transcendental causality. God's will and causality unfold through two types of secondary causes, necessary and contingent.[37] These two types of secondary causes correspond exactly to Aquinas's discussion of occurrences from nature and from intelligence in his commentary on the *Physics*.

Aquinas's presentations of natural final causality integrate Aristotelian and Platonic or Neoplatonic elements to maintain both

[36] Aertsen, *Nature and Creature*, p. 347.
[37] See *ST* I, q.22, a.4, *ad* 1.

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the integrity of created causality and the divine goodness as the ultimate explanation and ordering principle for creation. In this sense, providence is not only supported by Aquinas's view of nature and natural final causality but also shapes it at the most fundamental level. As Aquinas writes in his commentary on the *Physics*, "it appears that nature is nothing other than the *ratio* of some art, namely the divine, which is implanted in things whereby they are moved to their determinate end" (*In Physic*. II, l.14, n.8, p. 96).

Corey Barnes
Oberlin College
Department of Religion
Rice Hall 316
10 N Professor St
Oberlin, Ohio, United States, 44074
corey.barnes@oberlin.edu

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