

**Thomas Aquinas, 'the greatest advocate of dispositional modality',
Fact or Fiction?**

Abstract

Aquinas has been labelled 'the greatest advocate of dispositional modality', by one contemporary power theorist. This paper's goal is to critically analyse this claim. Before doing so, however, it first explicates some components of Aquinas's ontology of powers, putting him in dialogue with contemporary discussions. Next it explicates the two competing views of the modality of powers, dispositional modality and conditional necessity, and proceeds to examine the textual basis as to which Aquinas held. Ultimately the paper finds in favour of the latter. The paper then concludes with a suggestion as to how Aquinas would explain examples given by those who advocate the dispositional modality position. In answer to the title, therefore, the paper argues that thinking Aquinas the greatest advocate of dispositional modality is a fiction, and that this award belongs to someone else.

**Thomas Aquinas, 'the greatest advocate of dispositional modality',¹
Fact or Fiction?²**

In recent years there has been a widespread appreciation and revived interest in Aristotelian metaphysics, with this being particularly evident from the revival of a non-reductive theory of powers.³ Related to this renewed attention, Thomas Aquinas, the great synthesiser of Aristotelianism and Doctor of the church, has also received much attention from analytic philosophers.⁴ One hopes this trend continues, and that Scholasticism, will be further explored and mined for the riches it possesses,⁵ rather than caricatured as has so often been the case. One

¹ Mumford, S. (2013) 'The Power of Power', in, R. Groff, & J. Greco, *Powers and Capacities in Philosophy*. New York: Routledge, p.19.

² Many thanks to Agustín Echavarría and two anonymous referees who have helped make significant improvements to this article.

³ By powers I mean the same as what many call dispositions. See: Marmodoro, A. (2010) *The Metaphysics of Powers*. New York: Routledge; Jacobs, J. (2017) *Causal Powers*. New York: Oxford University Press; Bird, A., Ellis, B. & Sankey, H. (2012) *Properties, Powers and Structures*. New York: Routledge; Groff, R. & Greco, J. (2013) *Powers and Capacities in Philosophy: The New Aristotelianism*. New York: Routledge.

⁴ Paterson, C. & Pugh, M. S. (2006) *Analytical Thomism*. Aldershot: Ashgate Publishing; Haldane, J. (2002) *Mind Metaphysics and Value in the Thomistic and Analytical Traditions*. Indiana: University of Notre Dame Press; Brower, J. E. (2014) *Aquinas's Ontology of the Material World*. New York: Oxford University Press.

⁵ Novák, L., Novotný, D. D., Soušedík, P. & Svoboda, D. (2012) *Metaphysics: Aristotelian, Scholastic, Analytic*. Heusenstamm: Ontos Verlag; Hüntelmann, R. & Hattler, J. (2014) *New Scholasticism*

area that Aquinas's work has not yet undergone much exploration is his theory of powers, even though he seems to follow Aristotle in thinking that powers are fundamental to nature. However, this should be clarified somewhat since there is one area within this field that Thomas's name is associated, namely, to holding a 'dispositional modality' view of powers. In this paper I investigate this claim and contend that it is false.

Aquinas's theory of powers and the contemporary debate

Before defining dispositional modality, and ascertaining whether Aquinas holds to this view of powers, I first outline his more general 'power' metaphysic, which has some similarities with contemporary debates on powers.⁶ For instance Thomas would seemingly concur with Mumford when he writes, 'Powers are accepted ... as an irreducible part of reality ... [and] are in some sense "for" a certain outcome.'⁷ Adams suggests one reason we can know Aquinas thought this is because he misses an obvious reason one might hold to occasionalism, namely, because nature doesn't possess any causal powers.⁸ Thomas instead, following Aristotle's view that nature is saturated by power,⁹ holds that 'all actions and movements whatsoever of bodies composed of elements take place according to the property and power of the elements of which such bodies are made'.¹⁰ Perhaps Aquinas's strongest reason for thinking there are powers is due to ideas he holds concerning cause and effect. He writes, 'In creatures, power is the principle not only of action, but likewise of effect.'¹¹ McCord Adams further suggests that 'the most obvious way to understand 'X is an efficient cause of Y' [for Aquinas, is that it] implies 'X has and exercises efficient causal power to produce Y'.¹² Aquinas, thus, holds to a powerful theory of causation,¹³ and would

Meets Analytic Philosophy. Heusenstamm: Editiones Scholasticae; Feser, E. (2014) *Scholastic Metaphysics*. Heusenstamm: Editiones Scholasticae.

⁶ I take Thomas's *potentia* to be synonymous with power. This follows Marmodoro's translation of Aristotle's potential and Clarks interpretation of Aquinas. Clark, E. D. (2015) 'THE CAUSE OF CAUSALITY IN ALL CAUSES': POWERS IN CONTEMPORARY METAPHYSICS AND POTENTIA IN THOMAS AQUINAS. PhD Thesis, Saint Louis University, pp.102-104; Marmodoro, A. (2014) *Aristotle on Perceiving Objects*. New York: Oxford University Press, pp.4-7.

⁷ Mumford, S. (2014) 'Contemporary Efficient Causation', in, T. M. Schmaltz, ed., *Efficient Causation: A History*. New York: Oxford University Press, p.322.

⁸ Adams, M. M. (2013) 'Powers versus Laws', in, E. Watkins, ed., *The Divine Order, the Human Order, and the Order of Nature*. New York: Oxford University Press, p.5.

⁹ Marmodoro (2014) *Aristotle on Perceiving Objects*.

¹⁰ *De operationibus occultis naturae*. tr. by J. B. McAllister (1939) Washington D.C.: Catholic University of America Press.

¹¹ *Summa Theologiae* I, q. 25, a. 1, ad 3. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros; *Sententia Metaphysicae*, lib. 9, l. 1, n. 10; *Sententia Metaphysicae*, lib. 9, l. 1, n. 15. (All non-quoted references are taken from www.corpusthomicum.org).

¹² Adams, M. M. (2010) *Some Later Medieval Theories of the Eucharist*. Oxford: Oxford University Press, p.51.

¹³ Schmid, S. (2011) 'Teleology and the Dispositional Theory of Causation in Thomas Aquinas', *Logical Analysis & History of Philosophy* 14:21-39.

no doubt be pleased that this view is once more gaining prominence within metaphysics.¹⁴

Whilst Aquinas would agree with contemporary power theorists that there are powers, the way he conceives of them would not be shared by all theorists.¹⁵ It will therefore be useful to give a rough outline of his view in order to see where he stands within the current debate. Since Thomas takes much of his metaphysics of powers from Aristotle there is much agreement between the two thinkers on this score.¹⁶ Fundamentally Thomas seems to think of ‘the nature and the notion of power ... [as] a principle of act’,¹⁷ and as such we can say that for Aquinas power is behind instances of actuality. Yet Aquinas goes further, distinguishing types of powers writing,

‘we must observe that we speak of power in relation to act. Now act is twofold; the first act which is a form, and the second act which is operation. Seemingly the word ‘act’ was first universally employed in the sense of operation, and then, secondly, transferred to indicate the form, inasmuch as the form is the principle and end of operation. Wherefore in like manner power is twofold: active power corresponding to that act which is operation—and seemingly it was in this sense that the word ‘power’ was first employed:—and passive power, corresponding to the first act or the form,—to which seemingly the name of power was subsequently given.’¹⁸

As is clear from this passage, Aquinas adopts the distinction between active and passive powers found in Aristotle,¹⁹ providing an asymmetrical relation within causation.²⁰ Clark provides a nice summary as to how these two types of powers fit together on Aquinas’s view when he writes, ‘the passive powers are

¹⁴ For instance: Mumford, S. & Anjum, R. J. (2011) *Getting Causes From Powers*. New York: Oxford University Press; Illari, P. & Russo, F. (2014) *Causality: Philosophical Theory meets Scientific Practice*. New York: Oxford University Press, pp.150-160; Bird, A. (2010) ‘Causation and the Manifestation of Powers’, in, A. Marmodoro, ed., *The Metaphysics of Powers*. New York: Routledge.

¹⁵ For an excellent detailed discussion of Thomas’s power metaphysics and its applications see: Clark (2015) ‘*THE CAUSE OF CAUSALITY IN ALL CAUSES*’.

¹⁶ Aquinas is sufficiently similar to Aristotle on his view of powers, such that understanding Aristotle’s view, which has been masterfully explicated by Marmodoro, provides one with a general outline of Aquinas’s: Marmodoro (2014) *Aristotle on Perceiving Objects*, pp.3-77.

¹⁷ *Summa Theologiae* I-II, q. 49, a. 3, co. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros; *De potentia*, q. 2, a. 2, co.

¹⁸ *De potentia*, q. 1, a. 1, co. tr. by English Dominican Fathers (1952) Westminster, Maryland: The Newman Press.

¹⁹ Witt, C. (2003) *Ways of Being*. Ithaca: Cornell University Press, p.40.

²⁰ Although this is not much defended within the contemporary literature, for instance Ingthorsson rejects this asymmetry, whereas Marmodoro defends it: Ingthorsson, R. D. (2002) ‘Causal Production as Interaction’, *Metaphysica* 3:87-119; Marmodoro, A. (2017) ‘Aristotelian Powers at Work: Reciprocity without Symmetry in Causation’, in, J. Jacobs, ed., *Causal Powers*. New York: Oxford University Press.

incomplete principles which are actual directednesses toward certain forms and are completed when coming into contact with things already complete in those certain forms; and the active powers are complete principles which 'replicate' themselves when put in contact with another that has those potencies which are directednesses toward the forms of those active powers.'²¹ This may be unlike most contemporary discussions of power, but Aquinas's view as to what identifies distinct powers seems to be shared, since it appears to be based on the powers manifestation and possessor. Hence, he writes, 'powers are of necessity distinguished by their acts and objects.'²²

Another component of Aquinas's view of powers, is that he takes there to be an internal relation between potentiality and actuality within a power.²³ This is evident in a number of places,

'Now just as actual being itself is a kind of actuality of an essence, so acting is an actuality of an active power or virtue.'²⁴

'Now, by the fact that the active power is actualized the effect receives the likeness of the agent.'²⁵

'For an action is properly the actuality of a power; just as existence is the actuality of a substance or of an essence.'²⁶

From these texts²⁷ it seems that an active power can be in potentiality when it is not acting, but when activated through contact,²⁸ the power moves to a state of actuality and acts upon a passive power. This view is particularly helpful since it enables Aquinas to bypass the always-packing never-travelling objection against powers. This objection claims that since contemporary theorists hold that the manifestation of a power is another power, 'the world never passes from potency to act',²⁹ and hence 'Causality becomes the mere passing around of

²¹ Clark, E. D. (2015) 'How Aristotelian is Contemporary Dispositionalist Metaphysics? A Tale of Two Distinctions', *Proceedings of the American Catholic Philosophical Association* 88, p.95.

²² *Summa Theologiae* I, q. 77, a. 3, co. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros.

²³ Again, here Aquinas follows Aristotle. Witt (2003) *Ways of Being*, pp.38-58; Marmodoro (2014) *Aristotle on Perceiving Objects*, p.13.

²⁴ *De spiritualibus creaturis*, a. 11, co. tr. by M. C. Fitzpatrick & J. J. Wellmuth (1949) Milwaukee: Marquette University Press.

²⁵ *Contra Gentiles*, lib. 2, cap. 45, n. 3. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

²⁶ *Summa Theologiae* I, q. 54, a. 1, co. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros.

²⁷ See also: *Summa Theologiae* I, q. 77, a. 3, co.

²⁸ *Contra Gentiles*, lib. 2, cap. 56, n. 9.

²⁹ Armstrong, D. M. (2005) 'Four Disputes About Properties', *Synthese* 144, p.314; Armstrong, D. M. (1997) *A World of States of Affairs*. Cambridge: Cambridge University Press, p.80.

powers from particulars to further particulars'.³⁰ Aquinas view, however, bypasses this concern since for him powers *do* pass from potency to act, and as such the worry that nothing is ever actual would be misplaced.

More could be said regarding Aquinas's views of powers, and it would be interesting to draw out some of the implications Aquinas derives from his power theory.³¹ However, for our purposes what has been said will be sufficient, and we must now attend to the matter at hand, the type of necessity Thomas thinks a power manifests with.

Dispositional Modality vs. Conditional Necessity

In order to do this, it will be useful to define the two most prominent views in understanding the modality powers act with, dispositional modality and conditional necessity. Dispositional modality holds that the modality 'connecting a causal power with its manifestation ... is neither pure necessity nor pure contingency but something in between.'³² Mumford and Anjum, the primary proponents of this view, elsewhere characterise this connection as having modal strength that provides the world with more than pure contingency. '[T]his link is one of tending or disposing only. It is not something as strong as a tie that binds things together inseparably. An effect does not always follow its typical cause: even a total cause cannot be relied upon always to be accompanied by its effect.'³³ The key, seems to be that on this view an effect might take place at one time, but not at another, even if the situations were identical. The effect therefore only tends to the powers manifestation. By contrast conditional necessity holds that 'when in appropriate circumstances dispositions [powers] manifest necessarily.'³⁴ The result of this is that if a power manifests in one situation then it will manifest in all identical situations.

Current state of play within Aquinas Scholarship

In some work Mumford suggests that Aquinas thinks powers possess dispositional modality, for instance writing, 'it is perhaps Aquinas who was the

³⁰ Armstrong, (2005) 'Four Disputes About Properties', p.314.

³¹ Once again, I refer the interested reader to Clark's (2015) PhD Thesis on the topic - '*THE CAUSE OF CAUSALITY IN ALL CAUSES*'.

³² Mumford, S. & Anjum, R. L. (2014) 'The Irreducibility of Dispositionalism', in, R. Hüntelmann, & J. Hattler, ed., *New Scholasticism Meets Analytic Philosophy*. Heusenstamm: Editiones Scholasticae, p.106.

³³ Mumford & Anjum (2011) *Getting Causes From Powers*, p.175.

³⁴ Marmodoro, A. (2016) 'Dispositional Modality Vis-à-vis Conditional Necessity', *Philosophical Investigations* 39, p.205; Hüttemann, A. (2013) 'A Disposition-Based Process-Theory of Causation', in, S. Mumford, & M. Tugby, ed., *Metaphysics and Science*. Oxford: Oxford University Press, p.122.

greatest advocate of dispositional modality.’³⁵ To be fair Mumford, with Anjum, admits elsewhere that this reading of Aquinas is taken from Geach³⁶ and that it might be wrong, although provide no textual backup for such a claim.³⁷ Alternatively Brock, an Aquinas scholar, takes Aquinas to hold a conditional necessity view of a power’s activation writing, ‘The necessity with which a thing produces its natural effect when there is no impediment is only conditional. The natural effect results necessarily, *if* there is no impediment.’³⁸ Unfortunately, he too provides little support for this reading. Therefore, even though I am in agreement with Brock in thinking that Aquinas holds to a conditional necessity viewpoint, the textual support for such a claim at long last needs bolstering.³⁹ The remainder of this paper then, can be seen as satisfying this need, by providing far greater textual backup for this interpretation.

What type of necessity does Aquinas think irrational powers of substances act with?

Before undertaking textual investigation, I should note that when Aquinas writes of the modality of powers, he is far more akin to speak of the modality of causation instead. Nonetheless, this shouldn’t concern us since as we have seen above, the most obvious way to understand ‘X is an efficient cause of Y’ is that ‘X has and exercises efficient causal power to produce Y’.⁴⁰ Thus, we need to understand Aquinas’s talk of efficient causation as shorthand for his deeper theory, which involves the interactions of the causal powers of objects. As such, when Aquinas speaks of necessity concerning causation this should be thought of as the type of necessity a power manifests with, since for Aquinas, causation just is the manifestation of causal powers on behalf of the agent and patient.

³⁵ Mumford (2013) ‘The Power of Power’, p.19.

³⁶ Geach, P. T. (1961) ‘Aquinas’, in G. E. M. Anscombe & P. T. Geach, ed., *Three Philosophers*, Oxford: Blackwell, p.101f.

³⁷ Mumford & Anjum (2014) ‘The Irreducibility of Dispositionalism’, p.109.

³⁸ Brock, (2002) ‘Causality and Necessity in Thomas Aquinas’, *Quaestio* 2, p.231.

³⁹ Other scholars who briefly touch on this question also don’t provide much, if any, textual support for their claims. For instance: Marling, J. M. (1934) *The Order of Nature in the Philosophy of St. Thomas Aquinas*. New York: The Catholic University of America, pp.90-120; Meehan, F. X. (1940) *Efficient Causality in Aristotle and St. Thomas*. Washington, D. C.: The Catholic University of America Press, pp 375-405; Smith, V. E. (1958) *The General Science of Nature*. Milwaukee, WI: The Bruce Publishing Company, p.241; Rosental, C. (2011) *Lessons from Aquinas*. Macon, GA: Mercer University Press, pp.35-41; MacDonald, S. (1993) ‘Theory of Knowledge’, in, N. Kretzmann, & E. Stump, ed., *The Cambridge Companion to Aquinas*. New York: Cambridge University Press, pp.176-77; Brock (2002) ‘Causality and Necessity’, pp.217-240; Brock, S. (2006) ‘G. E. M. Anscombe and Thomas Aquinas on Necessity and Contradiction in Temporal Events’, in, C. Paterson, and M. S. Pugh, ed., *Analytical Thomism*. Farnham, UK: Ashgate, pp.296-297; Knuuttila, S. (1993) *Modalities in Medieval Philosophy*. London: Routledge, pp.131-133; Kenny, A. (1969) *The Five Ways*. London: Routledge & Kegan Paul, p.60.

⁴⁰ Adams (2010) *Some Later Medieval Theories of the Eucharist*, p.51, p.57, p.252; Schmid (2011) ‘Teleology and the Dispositional Theory of Causation in Thomas Aquinas’, p.25.

Aquinas writes a great deal about necessity, drawing many distinctions, although I will only comment on those types relevant for our investigation.⁴¹ In the *Summa Contra Gentiles* Thomas makes a number of distinctions concerning necessity, writing, 'In created things, however, there are diverse modes of necessity arising from diverse causes.'⁴² One type of necessity he sees in created things is absolute necessity, which holds that effects must come about and can therefore never be impeded.⁴³ This, however, is not the type of necessity Aquinas thinks most created natural things display in their causal interactions, and so he goes on to distinguish necessity between 'action that remains in the agent itself, as understanding and willing, and in action which passes into something else, as heating.'⁴⁴ The difference in these types of actions, says Aquinas, is that in the first case no extrinsic terminus is required, and therefore there can be no external impediment, and so the actions necessarily occurs.⁴⁵ However, in the second case since the act has an extrinsic terminus it may be prevented by an extrinsic obstacle or impediment, and as such, 'if fire is hot, it necessarily has the power of heating, yet it need not heat, for something extrinsic may prevent it.'⁴⁶ Interestingly this example is much like one Mumford and Anjum use in support of dispositional necessity.⁴⁷

Aquinas continues his discussion by now suggesting that there might be another type of impediment which we might think of as intrinsic, since that necessity also depends 'on the condition of the thing moved and of the recipient of the agent's action'.⁴⁸ He reasons that some recipients of actions are in no way receptive to certain actions, giving the example of wool being made into a saw, and also that some actions are impeded due to contrary powers within the object that will receive the motion, giving the example of a feeble heat that will not melt iron. Therefore, he writes, 'In order that the effect follow, it is therefore necessary that receptivity exist in the patient, and that the patient be under the domination of the agent, so that the latter can transform it to a contrary disposition.'⁴⁹ Following this, he distinguishes between necessity by way of violence, where an

⁴¹ I will focus on the *Summa Contra Gentiles* passage, *Contra Gentiles*, lib. 2, cap. 30, but Aquinas discusses necessity elsewhere, such as: *In Physic.*, lib. 2, l. 15; *Sententia Metaphysicae*, lib. 5, l. 6; *De veritate*, q. 17, a. 3, co.; *De principiis naturae*, cap. 4.; *Summa Theologiae* I, q. 82, a. 1, co.

⁴² *Contra Gentiles*, lib. 2, cap. 30, n. 8. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

⁴³ Aquinas gives three examples of this necessity, see: *Contra Gentiles*, lib. 2, cap. 30, n. 11-13.

⁴⁴ *Contra Gentiles*, lib. 2, cap. 30, n. 12. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

⁴⁵ Aquinas spells out both these views making recourse to the forms of an object, but for simplicity and in line with the modern debate, I have removed these.

⁴⁶ *Contra Gentiles*, lib. 2, cap. 30, n. 12. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

⁴⁷ Mumford & Anjum (2014) 'The Irreducibility of Dispositionalism', p.115.

⁴⁸ *Contra Gentiles*, lib. 2, cap. 30, n. 13. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

⁴⁹ *Contra Gentiles*, lib. 2, cap. 30, n. 13. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

effect happens contrary to the natural disposition of the patient, and necessity of the natural order, when an effect happens in harmony with the natural dispositions of the patient. He ends the section writing,

It is therefore clear from what we have said that the necessity which arises from an efficient cause in some cases depends on the disposition of the agent alone; but in others, on the disposition of both agent and patient. Consequently, if this disposition, according to which the effect follows of necessity, be absolutely necessary both in the agent and in the patient, then there will be absolute necessity in the efficient cause, as with things that act necessarily and always. On the other hand, if this disposition be not absolutely necessary, but removable, then from the efficient cause no necessity will result, except on the supposition that both agent and patient possess the disposition necessary for acting. Thus, we find no absolute necessity in those things that are sometimes impeded in their activity either through lack of power or the violent action of a contrary; such things, then, do not act always and necessarily, but in the majority of cases.⁵⁰

Here, Aquinas makes it clear that those things which are sometimes impeded do not have absolute necessity, since they do not act always but only in the majority of cases, most likely referring to Aristotle's distinction of things which act for the most part. Aquinas makes this link more evident elsewhere when he says, 'some future things belong to their causes both potentially and by an efficient cause that can be prevented from producing its effect, and we say that such things happen *for the most part*.'⁵¹ It is interesting to note that this phraseology, 'for the most part', is what Marmodoro identifies with Aristotle's view of a defeasible modality, that is a modality that can be impeded in certain circumstances, but when there is no impediment the manifestation necessarily occurs.⁵² Hence if Marmodoro's interpretation is right, this phrase of Aquinas might give us some indication of his acceptance of conditional necessity. Whatever the case, it seems to me that Aquinas's phrase cited above, 'we find no absolute necessity in those things that are sometimes impeded in their activity ... such things, then, do not act always and necessarily, but in the majority of cases', nicely captures the debate over conditional vs. dispositional necessity. Given that he affirms certain acts of nature are not absolutely necessary, what type of necessity do they then have, if any? Aquinas doesn't provide a clear answer to this question here, but since he notes that these types of causes are those that can be impeded, it will be

⁵⁰ *Contra Gentiles*, lib. 2, cap. 30, n. 14. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

⁵¹ *De malo*, q. 16, a. 7, co. tr. by R. Regan (2003) New York: Oxford University Press; *Sententia Metaphysicae*, lib. 11, l. 8.

⁵² Marmodoro (2014) *Aristotle on Perceiving Objects*, pp.24-25.

important to see what he has to say about impediments elsewhere. Thomas, thankfully, often talks about things being impeded and therefore I list only a few instances:⁵³

‘Moreover, every agent produces an effect coeval with itself through the necessity of nature unless it is impeded.’⁵⁴

‘And therefore in all things whose active power is determined to one effect, nothing is required on the part of the agent to acct beyond the complete power, provided that there is not an impediment to what the effect would follow arising from a defect of the recipient: so it seems in all agents [acting] by natural necessity.’⁵⁵

‘an operation can be impeded in many more ways than those by which it can be perfected, since it is not brought to completion unless all the causes concur; but the operation is impeded, if any one of those [causes] which are necessary to the operation is impeded’⁵⁶

‘For progress is always made from the same principle to the same end, unless something impedes it.’⁵⁷

As we can see in these select cases, Aquinas tells us a bit more about the character of those causes that are able to be impeded. He tells us, once again that agents produce effects like themselves through the necessity of nature unless impeded. Elsewhere he clarifies this type of necessity writing, “natural” necessity, resulting from the natural principles---either the form (as it is necessary for fire to heat), or the matter (as it is necessary for a body composed of contraries to be dissolved).⁵⁸ We also see that Thomas starts to list types of impediments, noting that a defect in the recipient might be one.⁵⁹ Finally, Thomas realises that many effects, perhaps even all effects, happen in virtue of more than one cause. As he notes, if only one of these causes is impeded then the

⁵³ A search of ‘imped*’ on Corpus Thomisticum has Thomas as using this phrase 4931 times. Obviously, I don’t list them all here, but will try to give a feel for how the term is used more generally. For other important instances see: *In Physic.*, lib. 2, l. 8, n. 4; lib. 2, l. 13, n. 257; lib. 2, l. 14, n. 7; *Contra Gentiles*, lib. 2, cap. 23, n. 2; lib. 3, cap. 72, n. 2; lib. 3, cap. 86, n. 11; *Expositio Peryermeneias*, lib. 1, l. 13, n. 9; lib. 1, l. 16; *Summa Theologiae* I, q. 115, a. 6, co.

⁵⁴ *Super Sent.*, lib. 1, d. 43, q. 2, a. 1, s.c. 2. Own translation.

⁵⁵ *Super Sent.*, lib. 1, d. 45, q. 1, a. 3 co. Own translation.

⁵⁶ *Super Sent.*, lib. 4, d. 49, q. 3, a. 3, qc. 3, ad 3. Own translation.

⁵⁷ *In Physic.*, lib. 2, l. 14, 267. tr. by R. J. Blackwell, R. J. Spath & W. E. Thirlkel (1963) New Haven: Yale University Press.

⁵⁸ *Summa Theologiae* III, q. 14, a. 2, co. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros.

⁵⁹ Thomas lists other types of impediments elsewhere: *Sententia Metaphysicae*, lib. 6, l. 3; *Contra Gentiles*, lib. 2 cap. 22 n. 6. For a good discussion on this see: Silva, I. (2013) ‘Werner Heisenberg and Thomas Aquinas on Natural Indeterminism’, *New Blackfriars* 94:641–648.

effect will also be impeded, since all the causes are required for the effect to take place. Elsewhere he states this more precisely writing, 'For it is false that given a cause, even if it be of itself sufficient, that an effect necessarily results, since the cause can be prevented [impediri] from producing its effect. For example, pouring water on burning wood can prevent fire from burning the wood.'⁶⁰ The point here is that even if the cause is such that it would produce an effect, we can always add to causes produced by nature to such an extent as to render the cause insufficient to produce the effect.⁶¹ The difference between absolute necessity, by contrast, is that when a cause occurs, so does the effect, no matter if anything else is added into the causal mix. Nonetheless, in another passage Thomas makes it clear that effects without impediments happen as certainly as necessary causes writing, 'Moreover, just as from a necessary cause an effect follows with certitude, so it follows from a complete contingent cause if it be not impeded.'⁶² Here we can see that when a cause is said to be complete the effect is said to occur with as much certitude as a necessary cause; in other words, it will not fail. What is key to note here is that for Aquinas the effect would happen with certainty were it not for the impediment, yet this seems to be exactly what the dispositional view of necessity denies. It holds that modality even without an impediment a power may not bring about its effect since powers only *tend* to their effect, that is, they may fail in some instances despite the lack of an impediment. As such it seems to me that given this investigation of impediments we can say that Thomas holds to conditional necessity, since he avers that the effect of the cause will happen with as much certainty as a necessary cause, that is *every time, unless* there is an impediment. It therefore is only the impediment that stops the effect, not the nature of the cause being a mere tending.

There may however be an objection put forward here, namely, claiming that intrinsic impediments cause a problem for a conditional necessity interpretation.⁶³ Aquinas mentions two in particular writing that there may be 'a defect in the power of an agent, or ... [an] unsuitable condition of the matter'⁶⁴ such that an effect cannot be received. To the first I suggest advocate of conditional necessity need not be worried. What the dispositional necessity interpretation has to say is that a defective power might produce the effect sometimes, whilst in others it might not when in the same situation. The conditional necessity position just says that a power might be defective in

⁶⁰ *De malo*, q. 16, a. 7, ad, 14. tr. by R. Regan (2003) New York: Oxford University Press; *Expositio Peryermeneias*, lib. 1 l. 14 n. 11.

⁶¹ This seems similar to Mumford and Anjum's antecedent strengthening test. For some critical commentary see: Lowe, E. J. (2012) 'Mumford and Anjum on causal necessitarianism and antecedent strengthening', *Analysis* 72:731-735.

⁶² *Contra Gentiles*, lib. 1, cap. 67, n. 4. tr. by A. C. Pegis (1975) Indiana: Notre Dame University Press.

⁶³ Silva suggests this: Silva (2013) 'Werner Heisenberg and Thomas Aquinas'.

⁶⁴ *Contra Gentiles*, lib. 3, cap. 99, n. 9. tr. by V. J. Bourke (1975) Indiana: University of Notre Dame Press; *Metaphysicae*, lib. 6, l. 3, 1210.

causing an effect and it will always be defective. As such the outcome of the effect will always be the same. Aquinas here does nothing to say that in some instances the effect will be of one type, and in another a different type. I suggest other textual considerations point to us preferring the latter interpretation. As for the unsuitable condition of matter, the thought here is that matter is the source of indeterminacy and so we may never know whether it receives its effect. Thus, elsewhere Aquinas writes, that some things arise of necessity 'because their forms equal in their perfection the total potentiality of their matter, so that there remains no potentiality to another form, nor consequently, to non-being; such is the case with the heavenly bodies. But in things whose form does not fulfill the total potentiality of the matter, there still remains in the matter potentiality to another form; and hence in such things there is no necessity to be; rather, the power to be is in them the result of the victory of form over matter, as we see in the elements and things composed of them.'⁶⁵ Here again the advocate of the conditional necessity interpretation can claim that what is at issue here is whether the 'victory' can be guaranteed in every instance in which the same causal scenario is re-run with nothing being added or removed. If it can then conditional necessity holds. Here Aquinas says nothing to suggest that this cannot be the case, but merely seems to be making the point that because the form does not take up the whole potentiality of matter, there is a possibility of generation and corruption at any point if a more powerful power appears. This though, should not worry those interpreting Aquinas in a conditional necessity manner.⁶⁶

With this worry responded too, further texts can also be given to back up Aquinas's adherence to conditional necessity.⁶⁷ For instance he writes, 'But it must be noted that Avicenna's statement should be understood to apply only if we assume that no obstacle interferes with the cause. It is necessary then, that given the cause the effect follows, unless there is an impediment which sometimes happens by accident.'⁶⁸ Thomas makes it crystal clear here, even by using the word necessary, that an effect will happen necessarily unless there is an impediment. Additionally, this passage seems very similar to that of Marmodoro's contemporary explication of conditional necessity where she writes, 'on the conditional necessity view ... when in appropriate conditions,

⁶⁵ *Contra Gentiles*, lib. 2, cap. 30, n. 9. tr. by J. F. Anderson (1975) Indiana: University of Notre Dame Press.

⁶⁶ If a worry persists due to prime matter always being indeterminate a few things can be said in response. First, the nature of prime matter is highly disputed. Second, we might think Aquinas follows some interpretations of Aristotle in not reifying matter, but instead thinking of it as the condition of instantiation without the possession of any powers. Third, it might be suggested that the difficulties that generally beset the dispositional account and other texts of Aquinas speak in favour of reading him as endorsing conditional necessity.

⁶⁷ See also: *Sententia Metaphysicae*, lib. 9, l. 4, 1821.

⁶⁸ *Sententia Metaphysicae*, lib. 6, l. 3, 1193. tr. by J. P. Rowan (1961) Chicago: Henry Regenery; Super Sent., lib. 2 d. 36 q. 1 a. 1 ad 2.

dispositions [powers] do *more than tending* to manifest; they *will* manifest by (physical) necessity. Conditional necessity is not indefeasible necessity; dispositions [powers] on this view too *can* be prevented from manifesting. But the reason is that the external conditions might be such that they are not appropriate for allowing the disposition [power] to manifest as it would if unimpeded.’⁶⁹ Another text of Aquinas further strengthens this parallel to Marmodoro, in which he responds to the objection that begins with the claim that, ‘a cause is that from which something follows of necessity.’⁷⁰ Aquinas in his reply doesn’t deny this definition, but rather qualifies it writing, ‘If this definition is to be verified in all cases, it must be understood as applying to a cause which is sufficient and not impeded. For it happens that a thing is the sufficient cause of something else, and that the effect does not follow of necessity, on account of some supervening impediment’.⁷¹ Once again, Aquinas doesn’t suggest that causal powers merely tend towards their effects, rather they will achieve their effect every time, *unless* they are impeded, with this just being the conditional necessity view. Finally, Aquinas notes that ‘The difference between a natural agent and a voluntary agent is this: a natural agent acts consistently in the same manner as long as it is in the same condition. Such as it is, thus does it act. But a voluntary agent acts as he wills.’⁷² Here again Aquinas seems to affirm what dispositional modality denies, namely that if you rerun a scenario with a natural agent, one without a will, the same effect will follow *as long as it is in the same condition*. Yet as advocates of dispositional modality write, ‘An effect does not always follow its typical cause: even a total cause cannot be relied upon always to be accompanied by its effect.’⁷³ Aquinas here seems to disagree with this in regard to natural agents, instead thinking that an effect will only be different if the conditions change. Yet this is just the conditional necessity position, and so we have further evidence that this is the view Aquinas took concerning non-voluntary agents.

As such, on the basis of the texts provided it seems to me that Aquinas thinks powers manifest with conditional necessity not dispositional modality.

Aquinas responds to examples of dispositional modality

Given this how would Aquinas respond to supposed examples of dispositional modality? One example that Mumford and Anjum provide is that ‘smoking

⁶⁹ Marmodoro (2016) ‘Dispositional Modality Vis-à-vis Conditional Necessity’, p.207.

⁷⁰ *Summa Theologiae* I-II, q. 75, a. 1, arg. 2. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros.

⁷¹ *Summa Theologiae* I-II, q. 75, a. 1, ad 2. tr. by Fathers of the English Dominican Province (1947) New York: Benziger Bros.

⁷² *Compendium theologiae*, lib. 1, cap. 97. tr. by C. Vollert (1947) St. Louis & London: B. Herder Book Company.

⁷³ Mumford & Anjum (2011) *Getting Causes from Powers*, p.175.

tobacco causes cancer and yet there can be some who smoke without getting cancer.’⁷⁴ Aquinas, I suggest would say that smoking only causes cancer with conditional necessity, and therefore if the conditions are right smoking with necessity causes cancer. Yet as we have seen, Aquinas thinks a number of conditions must be met in order for an effect to occur.⁷⁵ Firstly, all causes must coincide, and given that most effects require numerous manifestations in order to produce their effect this will be a complex matter.⁷⁶ Yet for Aquinas, unless every cause coincides the effect will not occur since it will have been impeded. Secondly, there might be something added into the mix that stops smoking from causing cancer, for instance perhaps a gene that prevents the cigarettes from having this effect. Thirdly, perhaps the type of tobacco used has insufficient power to cause the effect, since Aquinas could think that the body is so powerful that it is unable to be overcome by the power of the cigarette to produce cancer. Aquinas makes moves like this elsewhere writing, ‘for example, when a man is said to be capable of suffering from some disease because his strength and natural power have been weakened.’⁷⁷ It is clear here that Aquinas thinks of the disease as being able to overcome the man, since its power is now sufficient to overcome his health now that he has been weakened. Likewise, the tobacco must have enough power to overcome the power of health of the one smoking it, with a body’s healthy efficacy varying from person to person. Finally, the power of the cigarette to cause cancer must be receptive in the matter of the patient, since some powers are not receptive to certain types of matter. I’m not sure that Thomas would provide this as a reason why cigarettes don’t cause cancer in certain humans since our matter does seem able to receive this power, yet it might be a response he would give as to why a robot or alien who smokes never gets cancer.

Given this, Aquinas appears to have the required tools at his disposal to explain why smoking doesn’t cause cancer in every instance, because not all of the conditions are met. In virtue of this I don’t think Aquinas would be much concerned by the examples given by advocates of dispositional necessity, since he would think the explanations he could provide on his conditional necessity account were just as sufficient.

Conclusion

⁷⁴ Mumford & Anjum (2014) ‘The Irreducibility of Dispositionalism’, p.115; Another example Mumford gives concerns a contraceptive pill causing thrombosis, see: Marmodoro (2016) ‘Dispositional Modality Vis-à-vis Conditional Necessity’, pp.212-213.

⁷⁵ Aquinas talks about some of these conditions in a number of places, for instance see: *Sententia Metaphysicae*, lib. 6, l. 3; *Contra Gentiles*, lib. 2, cap. 22, n. 6.

⁷⁶ *Super Sent.*, lib. 4, d. 49, q. 3, a. 3, qc. 3, ad 3.

⁷⁷ *Sententia Metaphysicae*, lib. 5, l. 14, 963. tr. by J. P. Rowan (1961) Chicago: Henry Regenerny.

I have argued that Thomas, despite being held up as the paradigmatic advocate of dispositional modality, is actually a proponent of conditional necessity. This, I hope to have shown, by providing a wealth of textual support. Therefore, in answer to the question posed by my title, Thomas Aquinas, 'the greatest advocate of dispositional modality',⁷⁸ Fact or Fiction? We must answer fiction, and Mumford will have to look elsewhere, perhaps to Anjum and himself, for this award!

⁷⁸ Mumford (2013) 'The Power of Power', p.19.