

Analytic and Synthetic Reasoning in Aquinas

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In the activities of inquiry which can possibly lead us toward a knowledge of truths as we move in an incremental fashion from a known toward an unknown that can then be known, two forms of reasoning present themselves to us as ways of knowing which are invoked, now at one time and now at another time, depending on the species or type of intelligibility that is being sought by the questions that we are asking.¹ By analysis (signified as the way or the order of resolution, as the *via resolutionis* or *modo resolutorio*), as inquirers, we move from effects to causes (from multiplicity to simplicity, from particularity to universality, from that which is complex and confused to that which is simple and distinct, from that which is later to that which is earlier, or from a whole to a part).² In analysis, we take something, a compound, and we then try to break it down into its constitutive elements or parts.³ We try to find a set of basic explanatory principles which would allow us to understand why something is so or why it is in the way that it is or happens to be. If, for instance, we must repair a broken mechanical device, we must take it apart to see how it works: what parts fit together and how the action of one part affects other parts. In the resolution of analysis, an effect or a conclusion is seen or it is known in some species of principle or cause which has been successfully grasped and understood.⁴

However, conversely, through synthesis (signified as the way or the order of composition, as the *via compositionis* or *modo compositivo*), we move in a converse direction: from causes to effects (from simplicity to complexity and multiplicity, or from universality to particularity, from that which is prior to that which is later or posterior). We begin from an understanding that we already have of a cause or a principle and, from this understanding of it, we now go into detail. We move toward specificity as we move toward a possible second act of understanding.⁵ We speak about possible “properties and implications” that are somehow suggested or implied.⁶ Hence, in trying to move from causes or principles toward conclusions, a conclusion is not known immediately within a prior or a first cause or principle (as would be the case if our understanding were to exist, in fact, as an act of intuition) but, instead, from a prior or first principle, a conclusion is known through additional acts of understanding which play a subsidiary kind of role.⁷ “Whoever proceeds from principles to conclusions does not

¹Aquinas, *Super Boetium De Trinitate*, q. 6, a. 1 *ad tert. quaest.*; *Sententia super Metaphysicam*, 2, 1, 278; *Sententia super Physicam*, 1, 1, 7; *Summa Theologiae*, 1a, q. 58, a. 3, ad 2; 1a2ae, q. 14, a. 5; Bernard Lonergan, *Verbum: Word and Idea in Aquinas*, eds. Frederick E. Crowe and Robert M. Doran (Toronto: University of Toronto Press, 1997), p. 74; J. Michael Stebbins, *The Divine Initiative: Grace, World-Order, and Human Freedom in the Early Writings of Bernard Lonergan* (Toronto: University of Toronto Press, 1995), pp. 33-34; Frederick E. Crowe, “Applying Universals to the Particular: The General Problem,” *Three Thomist Studies*, supplementary issue of *Loneragan Workshop*, vol. 16, ed. Fred Lawrence (Boston: Lonergan Institute, 2000), pp. 25-26.

²*Sententia super Metaphysicam*, Prologue.

³*Sententia Libri Politicorum*, 1, 16.

⁴*Summa Theologiae*, 1a, q. 14, a. 7.

⁵*De Veritate*, q. 8, a. 15.

⁶Stebbins, *Divine Initiative*, p. 33. See also, Lonergan, *Verbum*, p. 68.

⁷*Summa Theologiae*, 1a, q. 14, a. 7. See also Stebbins, *Divine Initiative*, p. 19; Martin Rhonheimer, *Natural Law and Practical Reason: A Thomist View of Moral Autonomy*, trans. Gerald Malsbary (New York: Fordham University Press, 2000), p. 269.

consider both at once.”⁸ In the way of inquiry or discovery, signified as the *via inquisitio* or as the *via inventionis*, as we move from a known to an unknown, we can proceed from basic first principles in the way of composition or synthesis (in the *via synthetica*),⁹ or we can proceed by way of resolution from the data of sense experience toward intelligibilities which would then indicate how the data of our experience are to be related to each other from the viewpoint of an intelligible unity which is known in a manner which transcends the givens of our human sensing experience.¹⁰ In either direction and reciprocally, in a context that is itself governed by the principle of causality (of cause and effect, of “cause and caused,” of *causae et causati*),¹¹ as we move toward a knowledge of any given thing through intermediary steps which present themselves to us as cognitional causes, our human reason and cognition unfolds itself in a completely natural, participative, proper way.¹²

Discovery in inquiry is not to be strictly correlated with analysis (with *resolutio*) despite a correlation which does obtain between abstraction and analysis in reference to direct acts of understanding which seek to grasp intelligible unities within experiences of multiplicity that are given to us by our different acts of human sensing.¹³ Analysis and abstraction both move our human knowing in a self-transcending direction from that which is sensible toward that which is intelligible: from effects to causes or from that which is posterior to that which is prior.¹⁴ When, later, we must make critical judgments about that which we think that we have properly grasped and understood, our subsequent acts of questioning must also move us as knowers along a similar vector: from that which is given to us or from that which is posterior to that which is somehow earlier or prior. We turn back toward sources

⁸*Summa Theologiae*, 1a, q. 14, a. 7; 1, p. 78.

⁹*Summa Theologiae*, 1a, q. 79, a. 8.

¹⁰*Summa Theologiae*, 1a, q. 79, a. 9.

¹¹*Summa Theologiae*, 1a, q. 108, a. 7, ad 2. In his *Natural Law and Practical Reason*, p. 295, n. 37, as Rhonheimer speaks about the nature of causality in Aquinas and how it relates to the structure of our human knowing, accidental causes are to be distinguished from essential causes since, in the relations between cause and effect, essential connections are to be distinguished from accidental connections. Some effects are virtually contained within their causes and, as we come to understand and know a given cause, we should be able to identify what effects properly flow or accrue to the causes that we are trying to understand. Hence, the discursiveness of our human reasoning is to be distinguished in terms of two types. One form is governed by temporal successions as one act of knowing comes after but another is governed by a form of succession which is strictly non-temporal. Its context is a form of causality where conclusions or consequences are formally linked to principles or causes. Hence, in coming to know a given cause, if we do not begin to understand its proper effects, it cannot be said that we have come to understand a given cause and how it works. Cf. *Summa Theologiae*, 1a, q. 14, a. 7.

¹²Rhonheimer, *Natural Law and Practical Reason*, pp. 267-268.

¹³*Summa Contra Gentiles*, 2, 100, 4: “The species of intelligible things....reach our intellect by way of analysis [resolution], through abstraction from material and individuating conditions.” See also *Summa Theologiae*, 1a, q. 12, a. 4, ad 3 which speaks about how the understanding of the human intellect is able, by resolution, to separate form from matter in the study of material things so that, by our understanding, we can grasp what is the form or meaning of a given thing.

¹⁴In *1 Scriptum super libros sententiarum*, d. 17, q. 1, a. 4, sol. as cited by Edmund Dolan, “Resolution and Composition in Speculative and Practical Discourse,” *Laval Théologique et Philosophique* 6 (1950), p. 22. See also *Summa Theologiae*, 1a, q. 14, a. 16.

or points of origin which would exist as explanatory, cognitional causes.¹⁵ Identifying these causes through our acts of sensing and understanding leads us toward an experience of verification as an hypothesis or idea is turned into a truth or a fact which is known.

However, whenever, as inquirers, we engage in forms of synthetic thinking which work from general causes toward a determinate knowledge of specific causes and forms,¹⁶ engaging in inquiries and demonstrations which then add nuances of meaning that had not been known before, the result is a loose form of deductive synthesis which also engages in some forms of resolute analysis. On the one hand, synthetically, our knowing moves from general to specific causes, but as our knowing also moves from a vague or an indeterminate knowledge of things toward a knowing that is being particularized and clarified (from whole to part), it evidences a resolute aspect which functions within the order of composition.¹⁷ At the same time, and more obviously, by employing forms of logical deductive acts of reasoning which move us toward conclusions from causes or forms that are known, the results can encourage us to ask new questions which can then reveal the insufficiency of our earlier acts of understanding. As a prospective judgment attempts to reduce an idea or a hypothesis to first causes or principles, our synthetic reasoning can be employed as a tool in order to find the sensible and intellectual evidence that is needed if, satisfactorily, we are to verify an hypothesis. And so, as our synthetic reasoning functions as an element within our theoretical acts of human reasoning to encourage and move us toward new acts of resolute reasoning, the result is an awareness of how between our acts of analysis and our acts of synthesis, a symbiosis exists. More fully does it represent how our acts of human reasoning function within our concrete forms of human inquiry. Each form of reasoning relies on the other even as we must admit to ourselves that the self-transcending character of our theoretical acts of reasoning would seem to favor a mode of inquiry which subscribes to analysis more than to synthesis. From sensible effects, we can undoubtedly *sometimes* arrive at principles and causes that account for the being of sensible effects.¹⁸ Success is not necessarily probable in any given effort or attempt even if the way of analysis is prescribed by how we exist as human subjects, living as we do within an order of incarnational restrictions which condition and account for the manner of our human cognition. However, if, on the other hand, in a clearly demonstrable way, we can easily move from a *reflective* knowledge of first principles and causes toward a knowledge of effects which would exist as a greater knowledge of these effects and so be able later to reduce any conclusions that are known back toward these same basic, first principles, the knowledge that would result should enjoy a completeness and a perfection than it would otherwise not have if a clear knowledge of basic principles is not given to us within ourselves, within the order of our self-knowledge.¹⁹

If an act of understanding takes a multiplicity and if it then converts it into a unity which is not seen but which is in fact understood, nothing prevents repetitions of this kind of transition from happening again where, through our further cognitive activity, new unities can be possibly apprehended in ways which transcend fresh instances and new experiences of multiplicity. Form succeeds form as our human cognition moves through a succession of different understandings which build on one another and

15*Sententia super Metaphysicam*, 7, 15, 1615; *Summa Theologiae*, 1a, q. 14, a. 7; Dolan, p. 40.

16*Summa Theologiae*, 1a2ae, q. 14, a. 1, ad 2.

17Dolan, p. 30, 39.

18*Summa Theologiae*, 1a, q. 85, a. 8, ad 1.

19*Summa Theologiae*, 1a, q. 85, a. 8, ad 1.

which, in time, gradually grow in their comprehensiveness.²⁰ Aside from acts of understanding which transcend material multiplicities (and which point to how we can distinguish acts of sensing from acts of understanding), because multiplicities also exist at a formal level in terms of differing ideas and understandings which appear at first to be unrelated to each other, other acts of understanding can join these ideas and understandings into a higher unity through apprehending other forms which subsume and sublimate lower intelligibilities into higher intelligibilities that can join lesser elements into new unities that form new wholes. Through developments in our understanding which occur over time, our human understanding grows in depth and in range through a progression which reveals a trajectory that is present both in our acts of understanding and knowing and in the contents of that which we understand and know.

Our human search for richer experiences of meaning reveals an order in the reality which our experience and apprehension of meaning reveals, while growth in our understanding and knowledge of different things changes us as knowers in ways which perfect us as knowers as we are brought to newer experiences of meaning by engaging in acts that are proper to the order of our human cognition. Experiences of meaning which reveal how other meanings are related and ordered to each other reveal

²⁰*De Veritate*, q. 8, a. 14; *Summa Contra Gentiles*, 1, 55; *Quaestio disputata De anima*, a. 18, ad 5; *Summa Theologiae*, 1a, q. 12, a. 10; q. 85, a. 4. While we can understand many things through apprehending a particular form, to understand everything about everything through the instrumentality of only one form or species is something that can only be done by the understanding of a divine intellect (a divine subject) who or which understands everything through itself (through employing the form or the species which is itself God's divine nature or God's divine significance). However, because of the incremental character of our human cognition, when, as human beings, we apprehend a form through an understanding which thus perfects us as knowers who are experiencing a particular act of understanding, it is impossible for us to be perfected by an understanding of form where this form negates or which contradicts a meaning or form which would have to belong to another act of understanding. If, for instance, we grasp the form or the intelligibility of a circle, to grasp at the same time and in the same way a form which is not the form of a circle but the form of something else (say, for example, the form of a square), in this situation, we would have to apprehend meanings which would jar with each other. A full understanding of one thing is not the full understanding of something which is other, and for this reason thus, the full understanding which is sought of any given thing, to some extent, must always exclude the meaning or the intelligibility that belongs to some other different kind of thing. The form of a circle is not the form of a square and so, by grasping the intelligibility of a circle, we know that we are grasping a meaning that does not belong to something else. If this were not the case, and if our understanding could not also grasp why the intelligibility of one thing is not the intelligibility of another, then, as a consequence, we would not be really fully understanding anything in particular as an item which is somehow distinct or separate (having an intelligibility of its own) and, so in the end, we would understand nothing with any degree of clarity or depth. But if, obviously, through one form, God's divine understanding in one act fully grasps the meaning of everything despite any differences which would indicate that one meaning is not another meaning, then the nature of God's understanding is shown to differ in a radical way from what we, as human beings, are able to understand through the form and kind of cognition which has been somehow given to us. The divine understanding possesses an infinity and a transcendence that can only be approached by a form of analysis which, in part, begins with the form of our human cognition and then, by negation, it would suggest and point what must be the form of God's divine understanding which is totally lacking in any kind of limitation.

realities that are distinct from each other but which are yet ordered and related to each other in ways which reveal a larger structure or order which belongs to the sum or the compass of all kinds of existing things. This structuring, in turn, suggests and points to a metaphysics where, from the structure of our human cognition, we can move toward terms and relations which are constitutive of a content which exists as critical, verifiable kind of metaphysics. As our human inquiry moves from forms that are less meaningful toward forms that are more meaningful, our unlimited desire for experiences of understanding moves us into forms of understanding which are further removed from any kind of contact which belongs to the acts and givens of our sensing experience. Growth in meaning comes with growth in degrees of abstractness and, in the end, the meaning or term which is most strongly desired is a meaning which is essentially theological and religious since its object is God as He exists in Himself as a self-subsistent act of understanding and being, God as one infinite act of understanding, whose act of understanding grasps all things in the self-understanding which exists as God's self-knowledge.²¹

²¹*Summa Contra Gentiles*, 3, 25, 1-16; *Summa Theologiae*, 1a, q. 12, a. 1; q. 12, a. 8, ad. 4; 1a2ae, q. 3, a. 8.