THE ONTOLOGICAL FOUNDATION OF POSSIBILITY: AN ARISTOTELIAN APPROACH[1]

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ABSTRACT. The article introduces and defends Aristotelian ontological theory of the possible as that which a power (active potency) is capable of bringing about. It regards this conception to be a sort of middle way between Platonic explanation based on abstracta on one hand and the possibilist theory ultimately making everything possible into actual on the other. The doctrine defended leads to the conception of necessary being. Combined with other assumptions concerning this being, there arise some interesting issues and apparent tensions to be resolved. The article outlines some of the discussions related to these problems in medieval and early modern Scholasticism.

KEYWORDS. Possibility, possible worlds, Aristotelian, necessary beány.

In my paper I would like to do two things: First, I will present the Aristotelian version of actualism as the means to deal with non-actual possibles. Second, this Aristotelian basis for the possible and arguably, for possibility, will enable us to introduce God as their ultimate ground into the picture, thus making metaphysics the gate for philosophical theology, or letting metaphysics to be inspired by belief, without ceasing to be a rational enterprise through and through.

The core of my paper lies in the presentation of the Aristotelian position on possibility and possible beings. The stand at issue, briefly developed in the first part, will then be further elaborated by examining relevant views of some medieval but especially late or second scholastic (that

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is, mostly early modern) figures on the matter of the ontological status of the possible, the so-called possibile, and possibility stemming from some general principles which will have to be outlined at the outset. The method employed will be more systematic than historical as we will aim at pinpointing the various conflicting issues at stake and the ways to accommodate them in the resulting respective theories. The approach taken in the matter is novel. However, why to concentrate on late scholastic figures at all? Firstly for historical reasons: some of these figures have not been researched in this particular subject matter.[2] Second, the understanding is important in view of later developments in early modern philosophy proper. I am thinking here especially of Descartes and Leibniz.[3]

Lately, it has been customary to interpret the meaning (i.e. explain, not define) of modal terms (i.e. possible, necessary, impossible, contingent and their derivatives) in terms of possible worlds. More precisely, the terms are seen as quantifiers over possible worlds. This is rather advantageous move, as this makes modal logic extensional. However, on an objectual reading of quantifiers there arises the question of the status of these peculiar objects, i.e. possible worlds. Thus metaphysics makes its way back in analytic philosophy to the despair of some and joy of others. The same applies when interpreting counterfactual conditionals. The possible worlds are ways the actual world either is or might have been had things been different. It seems that the counterfactual "Pope Benedict could have had a son, had he married" or the modalized statement "It is possible that Pope Benedict has a son" are respectable and meaningful. Hence, it appears that the domain of objects in non-actual possible worlds could be different (i.e. include Pope Benedict's son, for instance). It is precisely these never actual entities, or non-actual possibles, *mere possibile* (mere possibles) in scholasticism, which arouse much

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[2] The authors not researched so far are R. Arriaga and G. Vasquez. For Fonseca, the Scotists and some Thomists see also Coombs (2003). For the Scotists Punch and Mastri in particular see Coombs (1991). For Suárez see for instance Wells' introduction to Suárez (1983), which is a translation of Suárez' famous 31st disputation of his *Disputationes Metaphysicae* of 1597 into English or the now classic Doyle (1967).

As regards the medieval authors, see for instance the chapter "Thomas Aquinas, Henry of Ghent and Godfrey of Fontaines on the Reality of Nonexisting Possibles" in Wippel (1984) for Aquinas and Henry of Ghent. For Scotus see Wolter (1993), King (2001) and a number of studies in Honnefelder – Woods – Dreyer (1996).

[3] See the introduction to R. L. Friedman – L. O. Nielsen (eds.), *The Medieval Heritage...*, of which Coombs (2003) is a part.

controversy. In sum, their ontological status seems to be unclear: the criteria of identity are dubious thus affecting reference and identification. The additional desire for ontological parsimony (economy or simplicity) also contributes to the prevalent drive to reduce these dubious entities to actual objects. These entities tend to get some kind of representation by actual objects, as it is the case in models, Platonic in nature, treating possible worlds (including the actual world) as constituted by abstract entities. Thus a possible world becomes a maximal consistent set of propositions or states of affairs. Let us note in passing the important distinction between possible objects and possibility as a kind of property, or, more generally, determination or form. Possible objects in the model mentioned become abstract entities while possibility is understood as consistency, a primitive, further non-analyzable notion.[4]

The opposite strategy is to say that the dubious non-actual objects as Pope Benedict's son are as real as the objects in the actual world; possible worlds, including the actual one, are spacio-temporal spreads of physical objects, mutually causally inaccessible. This notorious position developed by David Lewis is dubbed possibilism or extreme realism, though it is rather nominalist in nature and actualist as far as one can get. Genuine possibilism, i.e. the view that there are some non-actual but possible ontologically diminished shadowy entities as opposed to actual entities, whether these are physical or abstract, is to be – by the two aforementioned strategies – done away with.

Now the Aristotelian stand is also reductionist and actualistic as for the dealing with non-actual possible objects. It is a sort of middle way between the aforementioned Platonic actualism relying on abstracta and nominalist actualism making possible states of affairs into actual, causally independent ones, a third way in between as Aristotelianism tends to be (see for instance the related and more general controversy over universals). In explaining change, Aristotelianism relies on the notion of potency or causal power to cause a form or to receive it which can be actualized (this is the distinction between active and passive potency) corresponding to ability and capability in things respectively. Now let us focus on active potency, ability to cause something. One can speak about potential, virtual presence of a form in the causal power, i.e. in active po-

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4   For the various strategies of reduction, possible worlds and the modern treatment of possibilia in analytic modal metaphysics see (among the now extremely prolific resources) the classic essays in Loux (1979).

tency. A possible state of affairs is thus in potency, virtually present in the causal power and in that to which it belongs, the efficient cause. The power itself is something actual, actual property of an actual thing, the cause, which causes something through actualizing the said power. (Notice the distinction between two acts here, the power is an actual property, which in turn is in potency to be actualized in causal action.) The key is that the ontological status of the possible can, at least partly, be reduced to actual things possessing causal powers, active potencies, i.e. abilities. In this one might see the ontological primacy of act over potentiality. To put it generally, a state of affairs is said to be possible if there exists a power to bring it about.

Now how is this state of affairs to be understood? In other words, what is the scope of this reduction? The scope of the reduction is partly dependent on the question whether *to every active potency there has to correspond a passive one, i.e. capability of some object – seen as a subject to receive a form.* Let us call it the principle (P). On Aristotle's hylomorphic account the scope of reduction, in other words, the possible state of affairs, would encompass the possibility of actual things having different properties as well as the possibility of there being other things provided there are (were or will be) actual things able to produce them. If one maintains the aforementioned principle of necessary correlation between active and passive potency (P), yet does not accept hylomorphism, particularly the notion of prime matter, than only possibilities of actual things having different properties could thus be explained.

Now even if one does not accept the principle of necessary correlation (P), there still will remain some apparently genuine possibilities unexplained. The theory would reduce only local possibilities to active powers of actual things, not the global ones, as one contemporary author observes (see Pruss 2002). For instance, the possibility that there could be no single thing of the actual world in existence, some other different things existing instead. In possible worlds language, there is some possible world containing things of which none exists in the actual world (the extreme version of this possibility regards these things to be the most elementary particles of matter, for example). If this possibility be genuine and if one prefers Aristotelianism over the other models, one needs some being to exist in both – or all of these worlds for that matter – to account for this possibility in terms of its causal power, hence also in the actual world. It goes without saying that for the scholastics this being was God

and that they did not adhere to the principle of necessary correlation of active and passive powers, at least to the extent to which the subject of passive potency would be anything real, as this would contradict the doctrine of creation out of nothing (*creatio ex nihilo*). To sum up, the way Aristotelianism deals with non-actual possibles is the following: generally speaking, a thing is possible but not actual if there exists a cause able to produce it.

What would be some of the reasons for preferring Aristotelianism over the other views? Perhaps difficulties in the other views, for instance, the unclear relationship of the abstract representation to its physical exemplification, the reasons of ontological parsimony, etc. One might rather accept potencies, i.e. abilities and capabilities, as there is some phenomenological foundation to them, than Platonic universals or sets of non-related parallel worlds. On one hand, even if one sets the ontological parsimony objection aside, the introduction of Platonic universals suffers from familiar difficulties with infinite regress in explanation, unclear or circular criteria of identity and epistemological objections concerning the mechanism of their knowability. On the other hand, sets of non-related parallel worlds verge on the border of the science-fictional, blur the distinction between the actual and the possible by making it a matter of perspective (indexical), not to mention the well-known and widely studied difficulties with the counterpart relation among individuals – occupants of the individual worlds – themselves.

The introduction of a (logically) necessary being required by the full-fledged Aristotelian explanation of all possibility, as indicated above, might be justified on independent grounds. Indeed this was the case with most of the scholastics of whom there will come more below and who adhered to some version of the modal proof for the existence of God, whether it was ontological, the First cause or Platonic arguments.[5]

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[5] The modal ontological argument is familiar by now thanks to contemporary discussions of its various versions (Hartshorne, Tichý, Gödel, etc.). However, the most elaborated as well as the most interesting of all the medieval arguments, though less known, is that of Duns Scotus, based on the notion of the First cause, as presented in his *Treatise on the First Principle* and elsewhere. A possible problem might be the reliance on the Aristotelian grounding of possibility in the first place. If this is the case, then the argument cannot serve as an independent ground for accepting the necessary being. Finally, the Platonic proof ("Platonic" because based on some fundamental Platonic notions) plays a prominent role in Thomism as well as in Thomas Aquinas himself (in spite of the notorious Five Ways), relying on (i) the principle of participation (beings, which are

It remains to be said that an important obstacle to a full scale theory of possibility based on potency was the Aristotelian principle "what is, necessarily is, when it is" having to do with the necessity of the present (and the past), for it seems that once a potency is actualized, the potency for the opposite ceases to be present, yet the contrary state of affairs is a genuine possibility. For example, when Socrates is sitting, his potency to stand is not present any more, for it is incapable of being realized any more. Yet the counterfactual state of affairs of "Socrates' standing" seems to be possible at the very moment of his sitting all the same. A solution was found by John Duns Scotus (c. 1266 – 1308) who paved the way for a full-scale synchronic treatment of modality:[6] a rational ability, i.e. active causal power, the will, as opposed to an irrational power incapable of contrary actualizations (e.g. the power to heat possessed by fire), retains the capacity for the opposite even when its contrary is in fact actualized, so while wanting to sit and realizing it, Socrates retains the power for the opposite act of the will, hence also the corresponding action and its result. Thus, on this view, the will becomes arguably the only source of contingency in reality.

In fact, it seems that scholastic debates over the issue of the ontological status of non-actual possibles are constrained by the following principles with which a particular solution has to be consistent:

Two principles tending to make the possible more real, i.e. into an object of sorts:

(R1) A possible being – as opposed to the impossible one – must differ in some way: the former can be actualized, the latter cannot: since the former seems to be more real than the latter, there are bound to be two sorts of non-beings (non-entia).

This principle is closely related to the principle (P). The latter principle (P), while denied in the case of creation from nothing, i.e. coming into being of a thing as a whole, also exerted some influence: Even though there is no real subject to receive existence as some kind of form, the pos-

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F not essentially, require there to be something which is *F* essentially) and (ii) the real distinction between essence and existence in finite beings (finite beings around us do not have existence essentially). This could be seen as a special version of the First cause argument apparently not dependent on the Aristotelian framework.

6   For the by now well-known difference between synchronic and diachronic treatment of modality see Knuuttila (1993).

sible, the not inconsistent essence, is transcendentally related to being as its terminus in that it is not opposed to it, it has certain aptitude to exist, so there seems to be a subject needed for the relation.[7]

The truths of metaphysics, the necessary "eternal" truths based on essential connections (given by (real) definitions), for example "man is an animal" and necessary properties (given by demonstrations) "man is able to laugh", "rose is odoriferous" and so on require some grounding, existence of the structured essence in some way, for the terms of necessary truths refer to structural parts of the essence. To put it simply:

(R2) The eternal truths require eternal connections and those in turn require eternally existent essential structures, bearers or subjects of these connections.

The principle directly opposed to these Platonizing, reifying principles, exhibiting the tendency to make the possible into some kind of reality of its own, is the principle that

(N1) Any reality of whatever kind (now the word reality is taken in the broadest possible sense excluding only pure nothingness), also encompassing possible, but non-actual objects, is wholly dependent on God.

whose application to possible beings could be seen as a special case of the general principle the Aristotelian would use for his actualistic reduction of possible states of affairs into actual ones: Possible states of affairs

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[7]   To say that something is transcendentally related means that the relation is constitutive for it and not just something added on to the thing as such. For example, an effect is transcendentally related to its cause. The word "essence" roughly means the set of necessary properties which make the thing the kind of thing it is. Only some of the properties a thing has necessarily would constitute the essence proper for the scholastics (e.g. rationality in man). The other necessary properties would be seen as derived or ontologically based on the essential ones (e.g. the ability to laugh or understand jokes), not belonging to the essence proper.

The word "terminus" denotes the second member of the ordered pair of members in a binary relation. Ontologically speaking, scholastics regarded (binary) categorical relations to be relational properties inhering in (belonging to) the first member as the subject and referring to the second member as the terminus. This relational property is possessed by the subject based on some foundation, non-relational property of the subject and/or the terminus. The precise ontological status of these relations – relational properties (whether they are real or only fictional, i.e. made by conceptual activity) was a matter of much controversy. In transcendental relations, however, the relational property is identical with the subject, for the relation is, as said above, constitutive for the thing in question, not something added on (inhering in it).

are reduced to actual states of affairs: actual causes and their active powers, abilities. In this special case, it is ultimately God and his potencies. As opposed to the principles R above, this principle (N1) tends to deprive the possible object of any reality, making it in effect nothing.

The principle (N1) also includes the following principle:

(N2) The necessary connections themselves are wholly dependent on God, not only the ontological status of the possible essence as such.

Let me explain the principle from a somewhat broader perspective: In the first part we used the term "possible but non-actual object" in reference to those objects that in fact never become actual, as the Pope's son. However, the term can also be used to include those that become actualized (i.e. created) in time prior to their actualization. The scholastics preferred to speak about possible but non-actual objects in this general fashion, prior to creation, not distinguishing their further status. Nevertheless, so far we have not mentioned that, in virtue of which these possibles become possible, the inner consistency, or non incompatibility (*non repugnantia*) of the essential features and the derived necessary attributes: the quasi-form of possibility. Recall that in contemporary theories this consistency is taken as a primitive fact. What in effect the principle (N2) states is that this inconsistency is also dependent on God, for if the necessary connections are set by God, the realm of what is possible is set as well.[8]

How do medieval and early modern scholastics accommodate to these principles? The solution of Thomas Aquinas (c. 1225 – 1274) seems to comply with all the set principles. The possibles – being ultimately divine thoughts or ideas in which God contemplates himself (in his simple knowledge) as outwardly imitable by numerous finite beings – are thus wholly dependent on him. So the requirement (N1) is satisfied and so is (N2), for the various ways of imitating and structuring perfections into essences is determined by the divine essence alone. The essences exist as divine ideas eternally as the principle (R2) requires. By this Aquinas skillfully avoids any demands on reification. The trouble seems to be with (R1), for God also knows the so-called impossibles, the beings of

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[8] This can be explained in the following way: once the necessary is set, the impossible is set too as the negation of the latter. Further, whatever is neither necessary nor impossible is contingent. The contingent and necessary taken together in turn delimit the realm of the possible.

reason such as chimera.[9] The same criticism could be directed against John Duns Scotus, who also makes possibles depend on divine reason. Yet, on some interpretations of Scotus (see Wolter 1993), God does not know the impossibles, for they are in principle unknowable, so the view of Scotus would score better on this point. On top of that, Scotus seems to detect what he takes to be a serious flaw in the type of position advocated by Aquinas: for in order for God to know the relation of imitability a finite object bears to him, the object, a terminus of the relation, has to exist first in some way and cannot be constituted by the knowledge of the relation as such. So, according to Scotus, God first (in the first instance of nature) establishes the object in intelligible being before he knows any relation between himself and this object. By doing so, the divine intellect complies with the rules of consistency which could be seen as transcendental conditions of any thought, thus the principle (N2) is not met on this interpretation of Scotus. However the principle (R2) stands, for these possibles exist as objects of divine intellect from eternity. Thus the quasi-form of possibility, consistency, is also taken as primitive by Scotus. Scotus maintains that the possible object is formally of itself (*ex se*), but ontologically dependent on God (*principaliter ab intellectu divino*, principally from the divine intellect). Yet a similar criticism to that Scotus directs against Aquinas can be launched against Scotus himself by invoking the principle:

> (I) in speculative knowledge, the knower by his act of knowing cannot constitute the object, but the object has to logically precede the act of knowing.

The intelligibility of an object is based on the object's having a certain status first. This very criticism is presupposed by the seventeenth century Scotist John Punch (Poncius), 1603 – 1673, (as is also a strong adherence to the principle (R1)) who advocates the *ens deminutum* (diminished being), a reduced form of being in logical potency preceding God's intellectual act. While it is true that Scotus played with the idea of ascribing some ontological status to the possible entity based on logical potency, that is, consistency alone, it is safe to say that for Scotus, the logical potency is only the consistency of the essential features themselves

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[9] Chimera was thought by the scholastics to be an internally inconsistent being having mutually incompatible properties, such as „being a young woman", „being a lion", „being a goat", "being a snake", etc.

(grasped on the intellectual level), admittedly independent of any actual cause, which constitutes the possible essence in metaphysical potency, that it is non repugnant to being, but the subject of this relation to being, the possible but non-actual essence itself, is thought up by God. Another famous seventeenth century Scotist, Bartholomew Mastri de Meldula (Mastrius), 1602 – 1673, objected to Punch, that he makes possibles independent, *a se* (from themselves), thus contradicting the principle (N1).

The fact is that Punch (and some ideas of Scotus) did not go as far as Henry of Ghent (c. 1217 – 1293) who, guided especially by a strong adherence to the principle (R2), postulated the infamous *esse essentiae* (essential being) of essences, a sort of actuality or at least reality in some narrower sense, thus flatly contradicting the principle (N1). Apparently the Thomist John Capreolus (c. 1380 – 1444) came close to this position. The fact is that in many Thomists one finds that logical potency constitutes a certain quasi-entity (Thomas de Vio, better known as Cajetan, 1469 – 1534), as is also the case with some Jesuits Gabriel Vasquez (1551 – 1604) and Rodrigo de Arriaga (1592 – 1667), while Francisco Suárez (1548 – 1617) appears to yield to it too in spite of his struggle to ground the possibility entirely in the divine omnipotence. The reason for this is the strong appeal of the principle (R1), but especially (R2) concerning the foundation of necessary truth. For Arriaga the logical potency itself, or inner consistency, confers an ontological status on the possible, that of being, for being is that, which is self-consistent (Scotist idea). A possible object is thus in remote potency, however, while considered as the object of divine power, as producible, it is in proximate potency. Gabriel Vasquez adheres essentially to the same doctrine while emphasizing the need for absolute object prior to the external denomination "the possible" or "the producible" derived as external denomination from the divine omnipotent power. The model he consistently uses is that of "the visible" applied as an external denomination to color (external, because the form of vision is not in the color, but in the eye). The color is there prior to there being the power of sight and its actual vision. Thus, in effect, Vasquez is extending the principle (I) to cover also the possible as the object of the divine will, not only the intellect.

Notice that in both Aquinas and Scotus as well as in Mastri the active potency on which the possibles depend is divine reason. That has to do with the fact, stated as a dictum, *nihil volitum quin praecognitum* (nothing is willed unless it is first known) as, for instance, Arriaga explicitly

states. Now the only one among the Jesuits who is making his best to stick to (N1) is the famous Portuguese commentator on Aristotle, Pedro da Fonseca (1528 – 1599). He wishes all possibility to be dependent on the divine will and power. In order to do that he has to undermine the above mentioned dictum, the priority and separation of speculative knowledge and will in God, embodied in the teachings on the instants of nature deriving from Scotus (and Avicenna). He also has to undermine the principle (I) in its extension to the divine will as we have seen in Vasquez. He does this by saying that a (possible) essence considered perfectly contains among its structural features the relation of dependency on the divine creative power as inbuilt into it as it were, so there is no way considering the essence and not taking the divine power into account at the same time. As for essential connections, he denies principle (R2) and hence also (N2): the connections among essential features are eternal and necessary while the essential structures so connected need not be and in fact are not. This is because the negations of difference expressed by necessary connections (for instance between man and animal) are purely negative, hence eternal and in no need of being ontologically dependent. Hence Fonseca also takes consistency to be primitive notion. This view has been criticized by Mastri – the negation of non-incompatibility or non-difference is something positive (i.e. double negation), not negative and hence the quasi-form of possibility or consistency – as something positive – appears to be in some need of a subject. This brings us back to the principle (R1) and some reality accorded to the possible.

To sum up, in my paper I was trying to advocate Aristotelian actualism as well as to show some problems associated with this reduction once it is admitted that the ultimate cause is the divine being seen as the creator.

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