ACCIDENTAL AND ESSENTIAL CAUSALITY
IN
JOHN DUNS SCOTUS’ TREATISE ON THE
FIRST PRINCIPLE

Exemplifying a tradition in which philosophy describes itself as faith seeking understanding, John Duns Scotus' De Primo Principio attempts to make the existence of God intelligible to natural reason. In this work, Scotus bases his argument for the existence of God upon his understanding of essentially ordered causes. Within the framework of essential order, Scotus locates God in His relation to

1. At the beginning of the treatise, Scotus addresses himself to his creator: «Adiuva me, Domine, inquiemtem ad quantum cognitionem de vero esse, quod tu es, possit pertingere nostra ratio naturalis ab ente quod de te praedicasti incohando». Cf. JOHN DUNS SCOTUS, A Treatise on God as First Principle (ed. et trad. A. WOLTER, Chicago 1966, p. 1). We have also consulted the Tratado Acerca del Primer Principio, in: Obras del Doctor Sutil Juan Duns Escot (ed. et trad. F. ALLUNTIS, Madrid 1960).
R. PRENTICE describes De Primo Principio as Scotus’ Prologion and gives a detailed description of the tradition which inspired this work of Scotus. See, especially, chapter 7 («The Spirit of the De Primo Principio») of his The Basic Quidditative Metaphysics of Duns Scotus as Seen in his De Primo Principio, Roma 1970.

2. The standard work on Scotus’ conception of essential order is that of R. Prentice quoted above; it deals with essential order specifically in chapters 4 and 5 (pp. 66-141), but it mentions the importance and nature of this theme in various other places. In brief, Prentice defines essential order according to Scotus as a disjunctive property of being, namely as a transcendental convertible with being, though in a disjunction. Unlike the transcendental that are convertible with being simply, like true and good, the disjunctive transcendental are convertible with being after the manner that the disjunctions act-potency and necessary-possible are, for every being is either actual or potential, necessary or possible. Thus, «essential order... is a disjunctively convertible property: Every being is essentially ordered, since every being is either prior or posterior. There will never be a case where a being is not either prior or posterior: nothing escapes one or other member of this disjunction» (op. cit., p. 64). However, it is crucial to note that «Scotus is at pains to insist that he is taking the property of being of essential order in the order of essence, so that he can prove the existence of God, not on the basis of contingent actuality, but on the basis of the nature of the quiddity involved in essential order: Since it has such a type of quiddity then necessarily the inferior of that essential order will lead to a First Principle» (ibid., p. 52). We shall clarify this latter remark more fully in what follows, by explaining how Scotus accounts for the reality of this order of essences which transcends becoming, so that he may then prove, by means of it, the existence of God.
creatures as their necessary, first efficient, and ultimate final cause. He develops this project relying on the view that the universe is one essentially ordered, metaphysical hierarchy. Causality is understood as a relationship according to dependence and relative perfection between the essentially ordered parts of this hierarchy, within which being as being is ordered from the highest cause to the lowest effect. Essential order is thus the foundation upon which Scotus metaphysically accounts for God as the cause of causes.

Scotus proceeds by arguing from the effects toward a simply first and ultimate cause. Such arguing is indubitably classical, especially when formulated in terms of motion, as are the various arguments based on the old adage: whatever is moved, is moved by another (quidquid movetur ab alio movetur). Scotus understands causality in motion, however, as accidentally ordered causality, which metaphysically presupposes and is grounded in essential causality. In an essentially ordered series of causes, both the existence and causal function

3. In De Primo Principio «everything is used to illustrate the implications of essential order as regards the existence and nature of God. Essential order becomes the key to the execution of a most compact compendium of theodicy» (ibid., p. 67). As Prentice also explains, the constitutive elements of the doctrine of essential order were already present in the other works of Scotus before the composition of De Primo Principio. What is therefore truly 'new' in this little tract is not the very doctrine of essential order, but rather its thematic centrality in the execution of the tract. For, «essential order had not enjoyed this key position prior to the composition of the De Primo Principio. Never does it appear as a means of uniting those vast realms of eminence and dependence in any of the other loci where the existence of the infinite being is proved, and this, even on the basis of eminence and dependence. These same particular properties are used, it is true, but they are never united under the one general property of essential order: they remain disassociated, particular properties» (ibid., p. 97). (Prentice, especially in chapter 2 of his book quoted in note 1, gives a detailed explication of the doctrinal relations as regards essential order between De Primo Principio and the earlier works of Scotus.) The newness of essential order in this tract, therefore, has to do with its being here, for the first time in Scotus’ writings, the central, unifying, metaphysical means to prove the existence and nature of God.

4. Precisely how Scotus deviates from and interprets the principle that all that is motion is moved by another is to be found in R. Effler’s detailed study: John Duns Scotus and the Principle «Omne Quod Movetur Ab Alio Movetur», New York 1962.

5. See Scotus’ remarks concerning the dependence of accidental causality upon essential causality in note 20 below. Scotus’ use of arguments based upon his notion of essential order (a property of being as being), rather than arguments regarding motion only, in proving the existence of God, shows his alignment with Aviceena against Averroes in the debate concerning whether metaphysics or physics should prove the existence of God. On the subject, see PRENTICE, The Basic Quidditative Metaphysics, pp. 124-34.
of the effect are caused and preserved by the simultaneous coexistence of the cause. On the other hand, in accidental causality, the effect may both function as a cause independently of its own cause, and continue to exist after its cause has ceased to exist. The coming and ceasing to be of substances within one and the same species is Scotus’ paradigm of accidental causality.

Although Scotus argues for the existence of God in terms of essentially ordered causes, he never explicitly justifies his adoption of essential order as the valid metaphysical means for this argument. Scotus never openly demonstrates that essentially ordered causes indeed are real in the way that his proof for a First Principle assumes them to be. Instead, he mainly describes essential order, contrasts it with accidentally ordered causes, and then proceeds to develop his demonstration of God’s existence on the basis of essential order. Nevertheless, Scotus’ philosophical reasons for adopting essential order as the means through which to argue for the existence of God are implicit in *De Primo Principio*. Our task will be to carefully evaluate Scotus’ remarks concerning essential order, and his contrast between accidentally and essentially ordered causes, to show both how Scotus understands the former type of causality as metaphysically grounded in the latter, and, therefore, why he argues for the existence of God in terms of essentially ordered causes.

6. Even though in *De Primo Principio* Scotus describes essential order, its divisions, and the mutually related members which constitute an essentially ordered series of causes, he does not argue explicitly for the reality of essentially ordered causes, thus sometimes giving the impression of simply presupposing it. Despite the central role of essential order in the tract, Scotus does not give a definitive account, here or elsewhere, of essential order. Due to Scotus’ scanty remarks on the subject, A. Wolter tells us that «Scotus nowhere clearly defines what he understands by essential order as such» (*First Principle*, p. 164); M. Gorman also writes that in *De Primo Principio* «Scotus does not say what an essential order is» («Ontological Priority and John Duns Scotus», in: *The Philosophical Quarterly* 43 (1993), p. 464).

Yet, as we shall show, Scotus does define essential order at some points, and indirectly disclose his understanding of it at others. Our main objective in this paper, however, is not to provide the reader with a comprehensive definition and description of Scotus’ conception of essential order, or with an explication of the centrality of essential order in *De Primo Principio* (R. Prentice’s work cited above does these things), but rather to lay out, on the basis of the text, Scotistic arguments to show the reality of essentially ordered causes. Our task is to give Scotistic reasons to prove the reality of the means (essential order), which are explicitly only described by Scotus in his writings, through which the existence of God is claimed to be proven in *De Primo Principio* — to give a Scotistic proof of the means of the Proof.
1. Preliminary Definition of Essential Order

Scotus begins by describing the different types of essential order, since essential order is an equivocal name which refers to two kinds of orders, namely that according to eminence and that of dependence. He also clarifies that he does not "take essential order in the strict sense as do some who say that what is posterior is ordered whereas what is first or prior transcends order... rather in its common meaning as a relation which can be affirmed equally of the prior and the posterior in regard to each other".

Essential order refers to both the prior and the posterior, cause and effect respectively, in their mutual relation, rather than to just the posterior as though it were ordered to some prior which is not itself ordered and, thus, transcends order. Thus, prior and posterior in an essential order are known to be such as ordered in relation to one another; the prior can only be called so in reference to a posterior and vice-versa. Since posteriority bespeaks priority and vice-versa, prior and posterior can be known through one another; the knowledge of one discloses or provides the key to that of the other. What is implicit here, of course, is that in an essential order prior and posterior must always coexist (at least epistemologically we may assert at this point). This coexistence or mutual relatedness allows for the discovery or inference of the prior causes through the posterior.

7. Cf. WOLTER, First Principle, p. 5.
8. Ibid., p. 3: "Accipio autem ordinem essentiale, non stricte — ut quidam loquentur, dicentes posterius ordinari sed prius vel primum esse supra ordinem — sed communiter, prout ordo est relatio aequiparantiae dicta de priori respectu posterioris, et e converso, prout scilicet ordinatum sufficienter dividitur per prius et posterius."

This 'broad' or non-strict definition of essential order, Prentice explains (The Basic Quidditative Metaphysics, pp. 70-71), shows Scotus' disagreement with Aristotle's conception of the first, unmoved mover as transcending order altogether, inasmuch as Aristotle's unmoved mover is only a final cause to which all is ordered, and not prior in regard to what is posterior. Scotus' conception of God as the first efficient, final, most eminent cause, however, is one of God in regard to creatures as their absolute Prior. Prior and posterior are thus correlative notions of every type of essential order, even of that between God (prior) and creatures (posterior). We shall not here concentrate on Scotus' conception of the relations in terms of essential order (according to finality, efficiency, and eminence) between God and creatures, which in fact presuppose the establishing of the existence of God by means of essentially ordered causes, but rather on the reality of essential order itself.

ones which may be more manifest to our direct experience, insofar as these effects are known as essentially ordered.

With regard to the order of eminence, whatever is more perfect or noble is prior while that which is less so is posterior. To elucidate the order of eminence, Scotus refers to Aristotle’s claim in book nine of his *Metaphysics* that «the things that are posterior in becoming are prior in form and in substantiality» 10. Thus full-fledged substances, though posterior in becoming, are more eminent and thus prior to what is in potency to them, namely to the potential being whose *telos* is becoming the perfect substance.

Scotus’ example of essential order according to eminence also involves a relation of metaphysical dependence between prior and posterior. Surely, the fully actualized substance is more perfect and eminent than what is in potency to it, as the actual is always more perfect, and thus prior according to eminence, than the potential. However, the being in potency to the substantial form depends on the substantial form as a prior actuality or final cause. Potency is related to actuality or substance both as what is less eminent to what is more eminent and as what is dependent to that upon which it depends. The actualized substance is prior to its potency not only because it is more perfect and eminent, but because potency depends on it as its actualizing principle. In this sense, dependence bespeaks imperfection and vice-versa. Hence, we begin to see that relations of both relative perfection and dependence can be two ways of understanding one and the same metaphysical hierarchy between prior and posterior.

This becomes clearer in Scotus’ remarks about essential dependence, which he also describes in terms of the priority of substance and form. Prior and posterior according to dependence can be understood to be related «according to substance and species... but to be more precise let them be called prior and posterior according to dependence» 11. Scotus’ use of the same example to illustrate both essential orders suggests that both modes of essential order, dependence and eminence, are inextricably related in the sense that what is dependent is less perfect than that upon which it depends.

More explicitly, essential order according to dependence is a state of affairs in which

the prior according to nature and essence can exist without the posterior, but
the reverse is not true... Even though the prior should produce the posterior
necessarily and consequently could not exist without it, it would not be
because the prior requires the posterior for its own existence, but it is rather
the other way about. For even assuming that the posterior did not exist, the
existence of the prior would not entail a contradiction. But the converse is
not true, for the posterior needs the prior (italics mine)\textsuperscript{12}.

The definition of essential dependence shows the nature of the coexistence
between prior and posterior, a coexistence which bespeaks a
structural or hierarchical type of causality, as opposed to a strictly
temporal one. The posterior depends on the prior in such a way that
its existence would entail a contradiction without the simultaneous
existence of the prior. In other words, it is impossible for the posterior
to exist without its prior cause also existing.

Thus the posterior can be understood to proceed from the prior in
a hierarchical fashion similar to the way in which concepts are
derived from one another. This form of causality may be elucidated
through the causal relation between genus and species. From a prior
concept, say color, another, say redness, is derived as posterior to it\textsuperscript{13}.
Further, redness as a quidditative concept could not exist, or would
entail a contradiction if there were no concept of its genus, namely

\textsuperscript{12} Ibid.: «Prius secundum naturam et essentiam est quod contingit esse sine poste-
riori, non e converso. Quod ita intelligo, quod, licet prius necessario causet posterior et
ideo sine ipso esse non possit, hoc tamen non est quia ad esse suum egeat posteriori, sed
e converso; quia si ponatur posterior non esse, nihilominus prius erit sine inclusione con-
tradictionis. Non sic e converso, quia posterius eget priore».

\textsuperscript{13} M. GORMAN also points out the logical paradigm in Scotus' understanding of

Wolter writes that Avicenna interprets the idea of creation ex-nihilo, «esse post non-
esse» through a logical understanding of causality, which influenced, and is thus akin to,
Scotus' own view of hierarchical causality. He writes that Avicenna «reinterpreted the
classical formula of creation [esse post non-esse] in an essentialistic rather than a temporal
fashion. Logic has a timeless character about it, and in its application to the real
world, is concerned only with priority, posteriority, or simultaneity of nature... there is
no reason why «post», in the classical formula «esse post non-esse», might not be inter-
preted as the way in which one concept followed necessarily or only contingently from
another. If B implies A, but A does not imply B, then A is logically prior to B, and B pos-
terior to A. Correlative notions by contrast are simultaneous in nature. A implies B and
color. The reverse, of course, is not true. One can imagine the possibility of someone never having seen a particular color, yet having experienced many other types of color and thus possessing the generic concept of color. The concept of color, then, can be understood as essentially prior to all concepts of particular colors, prior in such a way that particular color-concepts depend on its existence as their preserving, prior, higher cause. Conversely, an understanding of redness together with one of other colors such as blueness or greenness, can lead one to the understanding of the generic concept of color as their genus.

For Scotus, the hierarchical causality existing between prior and posterior implies that they are related according to essential dependence rather than, as we shall see, accidentally related. In essential dependence, the existence of the posterior is virtually included in that of the prior. Thus the posterior can exist only if the prior already exists, while the prior can be very well conceived to exist without its ever causing the posterior (even if, in reality, it always exists together with the posterior). Scotus’ non strict definition of essential order, in which both prior and posterior are mutually ordered, shows that he understands this order as a relation between prior and posterior where both must coexist in a fashion similar to the way in which hierarchically interdependent concepts do.

2. Essential Order: Accidental Causality as What Essential Causality is Not

Scotus elaborates on essentially ordered causes by contrasting them with accidentally ordered ones. In so doing, Scotus gives perhaps his most extensive definition of essentially ordered causes.

It is one thing to speak of accidental causes (causae per accidentem) as contrasted with those which are intended to cause a given effect (causae per se). It is quite another to speak of causes which are ordered to one another essentially or of themselves (per se) and those which are ordered only accidentally (per accidentem). For in the first instance, we have merely a one-to-one comparison, [namely] of the cause to that which is caused. A per se cause is one which causes a given effect by reason of its proper nature and not in virtue of something incidental to it. In the second instance, two causes are compared with each other insofar as they are causes of the same thing. Essentially ordered
causes differ from accidentally ordered ones in three ways. Firstly, in essentially ordered causes, the second depends upon the first precisely in the act of causing [unlike accidentally ordered causes]... Secondly, the causality is of another nature and order, inasmuch as the higher cause is the more perfect, which is not the case with accidentally ordered causes. This second difference is a consequence of the first, since no cause in the exercise of its causality is essentially dependent upon a cause of the same nature as itself, for to produce anything one cause of a given kind suffices. A third difference follows, viz. that all essentially ordered causes are simultaneously required to cause the effect, for otherwise some causality essential to the effect would be wanting. In accidentally ordered causes this simultaneity is not required (italics mine)\textsuperscript{14}.

Clearly, then, by essential dependence Scotus is not referring to any regular causality in motion or time where the posterior outlives the prior, as when the motion of a soccer ball continues after its having been kicked by the soccer player. In this case, the effect, namely the motion of the ball, outlives its cause, namely the act of kicking. Most of the temporal causality we experience is of this kind, namely, in Scotus’ terminology, accidentally ordered causality. Such is the causality proper to the generation of individuals within one and the same species. Substantial becoming is an accidentally ordered series of causes since the efficient cause of a substance may cease to exist while its effect, namely the substance it produced, continues to exist. Thus, it is quite surprising that Scotus uses this very paradigm of substance to elucidate the essential order of dependence, where the posterior always needs the simultaneous existence and causality of the prior.

\textsuperscript{14} Cf. \textsc{John Duns Scotus, De primo principio} (ed./trad. Wolter, pp. 45-47): «Ubi scietum quod aliud est loqui de causis per se et per accidens, et de causis per se sive essentialiter et accidentaliter ordinatis. Nam in primo est tantum comparatio unius ad unum, causae ad causatum; et est causa per se, quae secundum naturam propriam, non secundum aliquid sibi accidens, causat. In secundo est comparatio duarum causarum inter se, inquantum ab eis est causatum. Et differunt essentialiter et per se ordinatae in tribus ab accidentaliter ordinatis. Prima differentia est quod in per se secunda, in quantum causat, dependet a prima; in per accidens non, licet in esse vel in aliquo alio dependeat. Secunda est quod in per se ordinatis est causalitas alterius rationis et ordinis, quia superior est perfectior; in accidentaliter non. Et haec sequitur ex prima; nam nulla causa a causa eiusdem rationis dependet essentialiter in causando, quia in causatione alciuis sufficient unum unius rationis. Tertia sequitur, quod omnes causae per se ordinatae simul necessario requiruntur ad causandum; aliquin aliqua per se causalitas deesset effectui; non requiruntur simul accidentaliter ordinatae». 
Obviously, when Scotus takes the priority of substance over what is in potency to it as an illustration of essential dependence, he must be considering this priority in terms of a different causality from that of the temporal, successive generation of individual substances within a species. It is easy to see how substances that are posterior in becoming are more eminent than what was prior and in potency to them in time, namely their material or potential principle. And it is also easy to see how intrinsically, in one and the same substance, matter depends on the substantial form essentially as its actualizing principle in such a way that matter could not exist at all without the causality of form. In this sense, the priority of substance is one according to the intrinsic essential order that exists between matter and form in one substance. This, to be sure, aptly describes Scotus' understanding of essential order. Nevertheless, as a whole or universally, the causality proper to the coming and ceasing to be of substances in a species is accidentally ordered in that prior substances perish while their effects, the substances they produced, continue to exist. In terms of extrinsic causality, whether final or efficient, substantial becoming does not seem to satisfy Scotus' definition of essential order. This means, at first sight, that essential order, in this case the order between matter and form in one particular substance, is only found or grounded within an accidentally ordered series of causes, namely within the successive generation of substances in one species. Scotus, however, wants to show precisely the opposite, that essentially ordered causality is the metaphysically more encompassing form of causality wherein accidentally ordered causality has its metaphysical grounding.\(^{15}\) If this were not the case, Scotus could never

\(^{15}\) The clarification of how Scotus conceives this to be so is the special concern of this essay. For it seems that neither Scotus himself nor his commentators have sufficiently explained the mode in which accidental causality is really grounded in essential causality, even though this is an evident and fundamental tenet in *De Primo Principio*. The clarification of this issue is all the more crucial when we consider that the proof for the existence of God in the tract is *a posteriori*; the proof departs from the experience of that which is posterior and aims at the ascertaining of the existence of what is absolutely prior. Surely the proof includes an important *a priori* element as regards the nature of being, inasmuch as essential order is understood, prior to establishing the existence of the first principle, as a disjunctive property of being. Although the compatibility of posteriority (and some cases of relative priority) with being is ascertained through induction, there is an *a priori* sense that priority itself, namely an absolute priority (altogether lacking a relation of posteriority in regard to another) which is not 'experienced' in any usual sense of
the word, is not incompatible with being — whence the transcendental character of the disjunction: every being is either prior or posterior. In fact, the a priori character of the disjunction is such that one may conceive that what is absolutely prior can exist without what is posterior, while the reverse scenario is inconceivable. Therefore, we know that what is posterior exists, not a priori, but by experience. For Scotus, in an essential order «there is no a priori way of knowing that the imperfect member exists. If we know that it exists, this is only through experience» (R. PRENTICE, The Basic Quiddititative Metaphysics, p. 149). On the metaphysical aprioriism of the a posteriori proof for the existence of God in De Primo Principio, see R. PRENTICE, ibid., chapter 6.

Now, since the proof of the existence of God in the tract really begins with what we know and experience to be posterior, and this is being as accidentally caused (i.e., being in motion), wherein effects may exist and cause other effects without the simultaneous co-causality of their causes, it is necessary, before establishing the existence of the first principle on the basis of essentially ordered causes, to determine how being as accidentally caused is posterior according to, and thus grounded in, essential order, how the causality of being in motion depends on the truly metaphysical causality proper to being as being which presumably, as Scotus would have it, is that of essential order. As we have pointed out, the examples of essential dependence which Scotus explicitly gives seem to refer to cases of essential order within, and thus dependent upon, accidental causality, such as the essential dependence of matter upon form, which is, albeit illustrative of Scotus' description of essential order, radicated in an individual composite that is itself extrinsically caused by its efficient cause in an accidental way, for it may continue to exist and cause after its own efficient cause has ceased to exist. This case of intrinsic essential order is therefore comprehended within an extrinsic causality which is accidental — that of individuals causing other individuals within one species; as Scotus himself admits, «causae intrinsseae de necessitate habent imperfectionem annexam; itaque causae intrinsseae sunt priores in causando intrinsceis, sicur perfectum imperfecto» (JOHN DUNS SCOTUS, Tratado Acerca del Primer Principio (ed. et trad. F. ALLUNTIS, Madrid 1980, p. 612)). What we are seeking, therefore, is Scotus' conception of an extrinsic causality among essences which is metaphysically more fundamental than, and encompassing of, the extrinsic (and accidental), experienced causality proper to becoming, a case of which is that among individuals of the same species.

Similarly Prentice, in clarifying the mutuality or equiparence of the members of an essential order, specifically as regards the order of eminence, takes «an example which is of the order of accidents, indeed, but which makes the idea of equiparence clear. The leaf of this tree, let us say, the English oak, is greener than the leaf of that tree, say, that of the glorious golden elm; in this case the first leaf is prior in greenness to the second, which is the posterior in greenness. But the comparison and contrast cannot be made between the oak and the elm leaves unless 'green' has the same meaning in both cases, and they both regard this univocal meaning in different degrees. It follows from this, too, that automatically, when one has a common notion and two different things are compared to that common notion, one will necessarily be prior to the other; this means in turn, that it will never be the case that one will be in a relation of posteriority to the other while the other would have no priority with regard to its counterpart: they must both be related» (R. PRENTICE, op. cit., p. 69). Surely this is illustrative of Scotus' 'broad' definition of order in which prior and posterior are always mutually related (and to illustrate the mutuality of essentially ordered members is apparently Prentice's sole purpose in using this example). However, aside from the fact that this example speaks, not of dependence among essences or natures, but of priority and posteriority in terms of degree of possession of a given quality, Prentice's acknowledgment that his example is of accidents itself disquali-
claim, as he does\textsuperscript{16} in \textit{De Primo Principio}, to prove the existence of a first principle on the basis of a universal, essentially ordered series of causes.

A broader metaphysical account of substantial becoming shows how it is grounded in an essential order. This we show by analysing, (1) in what specific sense substantial becoming is indeed an accidentally ordered series of causes, and (2) how the accidental causality of substantial becoming presupposes an essentially ordered causality which fulfils the aforementioned definition of essential order according to dependence. We will see that with regard to substance and species two types of metaphysical causality are involved, one of which is more perfect and which preserves the causality of the other according to a hierarchical structure or \textit{in an essential order}.

\textsuperscript{16} cf. \textsc{John Duns Scotus}, \textit{De primo principio} (ed./trad. \textsc{Wolter}, p. 71).
Let us take the example of human beings coming to be from other human beings. Here the efficient cause need not always coexist with its effect. Thus the son, who is posterior to and caused by his parents, continues to live after his parents’ death\textsuperscript{17}. Obviously, in this case the effect or posterior does not depend essentially on its cause; here we have an accidentally ordered series of efficient causes. In what sense is this accidental series grounded in an essential order? The key to this hinges on what is the metaphysically predominant meaning we attribute to substance, whether that of a \textit{this} or that of \textit{whatness} or \textit{quiddity}. In brief, Scotus sees these two senses of substance as related in such a way that the former is caused by the latter according to a relation of essential dependence. Thus Scotus sees substance as something \textit{permanently subsisting}, prior essentially to any and each of its individual instantiations in a species. This is in keeping with Aristotle’s \textit{Metaphysics}, where it is said that, with regard to the individual, potentiality is prior in generation and time to actuality, but metaphysically speaking actuality is always prior to potentiality\textsuperscript{18}.

Substance is thus understood as an essence which is metaphysically prior to any of its individual instantiations in matter, and which is the cause of these temporal instantiations according to a hierarchical structure. Thus any composite of a given species depends on a

\textsuperscript{17} Obviously substantial change is not the only type of accidentally ordered causality. Scotus simply uses this example to show how all accidental causality is ultimately grounded in a causality according to essence.

\textsuperscript{18} \textsc{Aristotle, Metaphysics} IX, c. 8 (1049 b 17 - 1050 a 3) (tradd. H.G APOSTLE/L.P. GERSON, \textit{Aristotle Selected Works}, Grinell 1986): «Actuality is prior to potentiality in this sense, that there exists another thing of the same species, but not numerically the same as the thing in question, which is prior in time to the latter. What I mean is this, that prior in time to this individual man who now exists in actuality and to this corn and to this animal that sees, there was the matter and the seed and that which should see, and these were potentially this man and this corn and this seeing animal, but not yet in actuality; but prior in time to these potential things there existed in actuality other things from which these things were generated. For it is always by a thing in actuality that another thing becomes actualized from what it was potentially: for example, a man by a man an the musical by the musical, as there is always a first mover, and this mover already exists in actuality... Doubtless, a learner does not possess the science, but because of that which is being generated a part has been generated, and, in general, of that which is in motion a part has been moved... it seems that the learner, too must possess some part of the science. It is clear, then, that here too, actuality in this sense is prior in generation and in time to potentiality». 
prior, subsistent essence, what in fact determines the species essentially. An individual of a species cannot be what it is, or be at all for that matter, without the substance or species itself. The substantial form is thus prior to what is in material potency to it not only in the individual, but in regard to the species as a whole. Moreover, the essence or substance preserves the being of the composites in which it is present insofar as it determines their essential nature.

Thus the substance can be understood to subsist\(^{19}\) without any material potency, while anything that is in material potency to a given substantial form cannot exist without this prior form. This obtains whether we understand this subsistence more in line with Aristotle or more in keeping with Plato. Even though Aristotle did not posit forms of composites outside of matter, by maintaining the eternity of the species he did attribute to the species some causal subsistence over and above temporal flux. Plato more explicitly considered substance or essence as subsistent. Without getting into a speculation of whether Scotus was more of a Platonist or more of an Aristotelian, the point, and this is all Scotus needs to make his case, is to understand substance as the essential cause of all individuals which share in it. This only means that substance, as an essential cause, is essentially prior to, and independent of, any being in becoming which is in potency to or shares in it. To say that an individual of a determinate species exists and that the species or essence, namely what makes this individual into one of a species, does not in any sense exist, is in fact a contradiction. Hence, the accidentally ordered causality of substantial becoming depends essentially on the metaphysical priority of substance or species.

Moreover, causality according to essential dependence preserves the causality in becoming. This can be understood through Aristotle’s distinction that in the individual potency is prior to act in time, but absolutely speaking the opposite obtains. Causality in becoming presupposes and needs the absolute priority of act over potency, since any reduction of potency to act can only be in virtue of a prior act.

\(^{19}\) This type of subsistence need not be understood as independent existence, or as that of a substantial this. Aquinas, for example, sees the intellectual soul as subsistent because it is immaterial, yet he maintains that it is always part of the human composite. Cf. THOMAS AQUINAS, Summa theologicae I, q. 75, a. 2. In a similar way, essence can be seen as subsistent without necessarily having the ontological status of some independently existing Platonic form.
Act is thus always prior to potency; nothing comes from nothing, as Parmenides would put it. Thus the efficient causality involved in the generation of an individual composite in time presupposes a structural, essential causality upon which it depends, namely the metaphysical priority of substance itself. Substance, as subsistent in the mode of species, preserves both the efficient causality of individuals generated from others of the same kind, and the final causality or end toward which the beings in becoming are in potency to. Essential causality is that upon which accidental causality depends essentially; the causality of the temporal succession of individuals in a species can be understood as posterior in an essential order where substance, as an essential cause, is prior.

Now, as mentioned earlier, if we exclusively consider the intrinsic causes of an individual composite, namely matter and form, we can still see how an essential order obtains between them — without the form the matter is not actualized. What is crucial, however, is to see that this intrinsic essential order between the constitutive principles of an individual composite, and the accidental causality by which individual composites of a species proceed successively from each other, stems from, and is grounded in, a broader metaphysical essential dependence of potency on act. Without substance as what is essentially prior to any composite which shares in it, there would be no intrinsic essential order between form and matter in a composite, since the matter would not be in potency to anything higher or become any form. Without the structural or essential priority of substance, nothing in potency would be actualized as a *this of a certain species*. The causality of composites generating other composites within a species presupposes the higher causality of the substance or species as what is ontologically prior to each individual of the species.

3. *Two Types of Metaphysical Causality as Essentially Ordered*

Accidentally ordered causes have their terminus or grounding in essentially ordered causes. The distinction between an essential and an accidental series of causes hinges precisely on whether in the given series the posterior can exist without the simultaneous coexistence of its prior cause or not. In this sense we can say that accidentally
ordered causality, i.e., temporal causality in becoming, is in fact the posterior of an essential order in which essential causality as such is the prior.

A son may beget a child just as well whether his father be dead or alive. But an infinite succession of such causes is impossible unless it exists in virtue of some nature of infinite duration from which the whole succession and every part thereof depends. For no change of form is perpetuated save in virtue of something permanent which is not part of that succession, since everything of this succession which is in flux is of the same nature. Something essentially prior to the series, then, exists, for everything that is part of the succession depends upon it, and this dependence is of a different order from that by which it depends upon the immediately preceding cause where the latter is a part of the succession (italics mine)\textsuperscript{20}.

This passage belongs to the section of the text were Scotus begins to develop his proof for the existence of a simply first cause according to efficiency. There he argues that an infinite regress of essentially ordered causes is impossible and that an infinite regress of accidentally ordered causes is also impossible unless we admit that it has a terminus in an essential order. What concerns us here, however, is to see how Scotus argues that an infinite regress of accidentally ordered causes is impossible, and how this argument shows that there is an essential order according to dependence between accidentally ordered causality and essentially ordered causality, posterior and prior respectively.

The essential order which grounds an accidental order can be discovered by focusing on efficient causality in accidentally ordered causes. The coming to be of a man from his potency presupposes a prior act, namely another man which served as the efficient cause in the production of his son. However, the father himself did not come out of nothing either; his coming to be presupposes another actuality prior to his existence, namely his own parents. And these parents presuppose their own parents and so on. Now this accidental generation of beings of the same nature cannot regress infinitely, but must

\textsuperscript{20} \textsc{Johannes Duns Scotus}, \textit{De primo principio} (ed. WOLTER, p. 49): «Potest enim causare illo non existente, sicut filius generat, pate mortuo, sicut ipso vivo. Talis infinitas successionis est impossibilis, nisi ab aliqua natura infinite durante, a qua tota successio et quidlibet eius dependerat. Nulla enim differentias perpetuatur, nisi in virtute alcius permanentis, quod nihil est successionis, quia omnia successionis sunt eiusdem rationis; sed est aliquid prius essentiae, quia quidlibet successionis dependet ab ipso, et hoc in alio ordine quam a causa proxima, quae est aliquid illius successionis». 
exist in virtue of some infinite duration\textsuperscript{21}, which means, in this context, that it must be caused by some permanent essence. Otherwise, no human being would be produced in the first place, since for there to be a series there must be a beginning and in an infinite regress there is no beginning. In other words, the subsistent species of humanity, the essence of all human beings, is precisely what is metaphysically prior to each and every instantiation of humanity in individual people. The accidental series of human beings coming and ceasing to be presupposes the prior act of essence as its permanent cause. In this way, accidentally ordered causes have their terminus in essentially ordered ones.

The core of Scotus’ argument is that a flux of substantial change, where beings of the same nature come and cease to be, presupposes some changeless nature, namely some nature of infinite duration on which the accidental series depends essentially. Here Scotus, in a way similar to Aristotle, attributes a form of eternal subsistence to the species. A perpetual succession of individuals of the same species presupposes the permanent causality of the species or nature itself which, as the essential cause of an infinite successive, accidental series, must have an infinite duration of its own. In this way, temporal causality in becoming depends essentially on a structural or essential causality of the species itself. For this reason, Scotus remarked in the first passage we quoted in this section that nothing depends essentially on something else of the exact same nature. An individual substance does not depend essentially on another similar substance, namely on its efficient cause, but rather on the species or essence itself which has a higher ontological status than the individual composite natures, which is the uncaused or first cause relative to the accidental series that it causes and preserves\textsuperscript{22}.

\textsuperscript{21} Clearly here Scotus speaks of infinite duration mainly in reference to the species in a way similar to Aristotle’s doctrine of the eternity of the species. The species, as having infinite duration, is unmoved relative to the motion of substantial changes. Scotus is thus not yet referring to the infinity of God, which for him is intensive infinity, intensive in the sense of having the fullness of perfection. Cf. F. J. Catania, «John Duns Scotus on Ens Infiniurn», in: American Catholic Philosophical Quarterly 67 (1993), pp. 37-54. Scotus treats the infinity of God much later in the text.

\textsuperscript{22} To say that the species, as prior, transcends the causality of substances in motion does not mean that the species transcends order. Here, Scotus’ non strict definition of essential order still applies. There is still a mutual connection or order between prior and
What preserves the species, as perpetually instantiated in individuals, is the infinite duration of the essence or substance, a nature more encompassing and perfect than that of the particular composite substances which depend upon it. Most importantly, the very causality exerted by individuals generating other individuals of the same species depends on the simultaneous causality of the essence or substance itself which preserves their being. The essence is not part of the succession, but is rather prior to it according to nature. As the first cause of the accidental series, substance or essence is uncaused relative to the series and is thus outside the series. In this sense, there is an essential order according to dependence and eminence between substance and the accidentally ordered series. To say that accidentally ordered causes have their root or terminus in essentially ordered ones means that there is an essential order between these two types of causality where the former is the posterior which depends essentially on the latter as the prior. Therefore, this very essential order between essentially ordered causality and accidentally ordered causality may be understood as partially disclosing Scotus view of the relationship between being and becoming in terms of causality.

Crucial conclusions from the previous analysis can be now established. The first is that there is an essential order between accidentally ordered and essentially ordered causality, posterior and prior respectively. Secondly, insofar as the prior of this essential order, namely substance, is considered as a cause of an infinite duration, whatever form of subsistence it may have, we have arrived at a consideration of a metaphysical causality which takes place according to a hierarchical structure, as opposed to one peculiar merely to being in time or motion. Moreover, the horizontal, so to speak, causality in becoming depends and is preserved by this vertical, essentially ordered causality. Insofar as causality in motion depends essentially on a higher cause of an infinite duration in an essential order, the question arises as to whether this essential cause is itself caused or not. Obviously, as mentioned, this cause is uncaused relative to the posterior, only that the prior is higher in, and different according to, essence. Substance transcends the accidental series as such, but this very transcendence constitutes its essential or structural priority to it. Substance transcends the accidental series precisely as the essential cause of accidental causality, as its structurally prior, higher cause. The reason is that in essential order prior and posterior are always at different metaphysical levels.
accidentally ordered series. It cannot be caused according to any form of accidental causality as it has essential priority over it. Therefore, if the given substance is caused, it must be caused in an essential order where it would be essentially posterior to some prior, higher cause upon which it would depend for its being and causality. The reason is that substance or essence, as a prior actuality which is somehow outside of causality in motion, can only be caused, if it is caused (and it probably would be if it is found to be a discrete, finite nature) and in whatever way it might be caused, by something which is also outside causality in motion. The essence would be caused only by what possesses an essential superiority with respect to it analogous to the essence’s causal superiority over the accidentally ordered series, namely a superiority according to essential dependence.

We have thus arrived at a metaphysical consideration of essentially ordered causes proper, wherein causality is of a truly hierarchical and structural type outside of becoming, a causality by which, for Scotus, the constitutive parts of the universe itself are ordered. And it is perhaps through the logical paradigm that we mentioned earlier, where a concept of a species is derived from its higher genus, that one can best envision a type of metaphysical causality in which natures proceed structurally from higher ones according to relations of essential dependence and eminence. Through an understanding of this type of causality, Scotus argues in *De Primo Principio* for the existence of a first principle of an essentially ordered universe. With this view of causality, Scotus proceeds to show why there must be a simply first efficient cause and an ultimate final cause that is one and the same uncaused being, especially through the premise than an infinity of essentially ordered causes is impossible, just as an infinity of accidentally ordered causes is also impossible unless it is grounded in an essential series.

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