

*The Cambridge Companion to*  
**DUNS SCOTUS**

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## 4 Duns Scotus's Modal Theory

Recent interest in John Duns Scotus's modal theory derives largely from the suggestion that Scotus was the first in the Middle Ages, and perhaps the first ever, to employ a synchronic conception of modality, one that allowed for alternative possibilities at a given time, and from the debate about whether Scotus introduced a notion of logical possibility divorced from any question of what powers there are. These issues interact in the question of whether Scotus had any analogue of the notion of possible world in either the Leibnizian or the late twentieth-century sense. Late medieval interest in Scotus's modal theory derived largely from its role in his account of divine and human freedom and from the debate about whether possibility itself depended in any way upon God. This discussion attempts to shed some light on these issues and to locate them in the context of the issues in the theory of modality with which Scotus and his contemporaries were themselves concerned.

It would be desirable in an essay of this kind to present a picture of the development of Scotus's thought about modality, but in the current state of scholarship that is not possible. Despite nearly a century of work by the Scotus Commission and by a number of very able scholars outside it, our understanding of the textual tradition of Scotus's works remains radically incomplete. In such a situation any hypothesis about the development of Scotus's modal theory must be highly speculative. In what follows I will not attempt to trace such a development but will attempt to limn the modal theory with which Scotus seems to have been working at the end of his (unfortunately short) life. To that end I concentrate on works which, while not unproblematic, are now widely agreed to be authentic, and to be, at least for the most part, mature. They are the *Questions on the*

*Metaphysics*, the *Lectura* on the *Sentences* of Peter Lombard, the *Ordinatio* on the *Sentences* of Peter Lombard, the *Paris Reportatio* on the *Sentences* of Peter Lombard, and the *Tractatus De Primo Principio*.

That said, it does seem quite possible that Scotus did not have at the beginning of his philosophical production some crucial elements of the modal theory that he held in his latest work. If the *Octo Questiones* printed in the Wadding edition of Scotus's *Opera Omnia* is authentic, then it is noteworthy that there is no hint in it of the doctrine Scotus adopts in other works – that “A is B at  $t$ ” and “A can be not-B at  $t$ ” are sometimes true together at  $t$ . Instead, in Question 8 Scotus argues explicitly that a future-tensed sentence like “You will be pale in A” (*Tu eris albus in A*) has two readings.<sup>1</sup> On one it “signifies it now to be thus *in re* that you will be in pale in time A.” On the other it signifies now that you will be pale then. Scotus understands the first but not the second reading to commit one to there being something about the present state of affairs that serves as truthmaker for the sentence and so understands the first reading to be making a stronger claim than the second. On the first, stronger reading Scotus takes the sentence “You will be pale in A” to be determinately false and, so understood, to be inconsistent with “You can be not going to be pale in A” (*Possis [in A] esse non albus*). On the second, weaker reading of “You will be pale in A” it is, he says, “indeterminately true or false,” and on that second reading it is consistent with “you can be not going to be pale in A.” He claims that the first pair are no more consistent than the pair “You are pale now” and “You are able not to be pale now.” Scotus’s use of the analogy with the present-tensed case here strongly suggests that he does not yet have in mind his own (later?) doctrine of the contingency of the present, since on that doctrine the present-tensed pair is consistent.<sup>2</sup>

### I. THE CONTINGENCY OF THE PRESENT

The doctrine that I am calling the contingency of the present and that others have called the synchronic picture of modality is clearly present in the discussion of foreknowledge and future contingents in Book 1, d. 39 of Scotus's *Lectura*.<sup>3</sup> Scotus there argues that God knows the future and predestines it but that much of it is,

nevertheless, contingent. Scotus accepts the necessity of the past.<sup>4</sup> He denies the same necessity to the present. The key to his position is the claim that God's activity all takes place in a single indivisible "moment" or *nunc* that never "passes into the past" (transit in praeteritum), and that God's willing, like our own, is the exercise of a rational power – that is, a power for opposites – that includes the "nonevident" power for the contrary at time *t* of whatever it is actually choosing at time *t*. Positing this "nonevident power" is a bold move on Scotus's part because the tradition to which he is heir takes more or less for granted a view like that presented in a treatise on obligations sometimes attributed to William of Sherwood and with which Scotus was familiar.<sup>5</sup> The treatise has it that

again, a false contingent about the present instant having been posited, it, namely the present instant, should be denied to be. Which is proved thus. Let *a* be a name of the present instant (a name, I say, which is discrete, not common). Since, therefore, that you are at Rome is now false, it is impossible that now, or in *a*, it be true, for it cannot be made true except through a motion or a sudden change. It cannot be made true through a motion because there is no motion in an instant, nor through a sudden change because if there were a sudden change to truth in *a* then it would be a truth in *a* – because when there is a sudden change there is a terminus of the sudden change. Thus it is impossible for this falsehood to be made true in *a*. So, therefore this is true: '*a* is not'. Therefore, if the falsehood is posited, it is necessary to deny that *a* is, and this is what the rule says.<sup>6</sup>

To see what this text asserts – and what Scotus is denying in his assertion of the contingency of the present – it is useful to consider the text in the context of Aristotle's discussion of the relation between potentiality and change.

Aristotle distinguishes several different senses in which items can be ordered as prior and posterior. One of the most familiar and most important is the prior and posterior in time. In his *Physics* Aristotle defines time as the measure of change (*kinesis*) with respect to prior and posterior and defines change as the actualization of a potentiality as such. This picture ties the ordering of items as prior and posterior in time directly to the potency–act relationship. In a given change potency is prior to act in time. Aristotle also distinguishes several different senses of 'possible' in one of which something is possible just in case there is a potency to bring it about. If we marry these two notions we produce a picture according to which to bring about what

is possible but not actual requires the actualization of a potentiality, which in turn takes time. We could encapsulate the picture in the principle

A) If X is A then X can be  $\sim A$  if and only if it can change from being A to being  $\sim A$

and the observation that the result of a change is always later than the beginning of the change. It is this picture that underlies the rule enunciated in the Sherwood (?) *Obligationes*.

Principle A and the associated doctrine that time is the measure of change pose serious difficulties for any attempt to suggest that a being acting outside time (God, for example) can do anything other than it does. They also raise difficulties for the suggestion that a being acting at a time can do anything other than it actually does at that time. Both of these sets of difficulties become acute if we also suppose that a being acts freely only if it can do other than it does. This complex of worries was focused by an example first formulated, as far as I am aware, by Grosseteste, and taken over by Scotus in his *Lectura*. Consider a rational creature – an angel, for example – that exists only for an instant during which it is, let us suppose, loving God. The question posed is whether it could be loving God freely.

The argument that the angel could not be loving God freely is that for it to do so it has to have a power to do otherwise, say, to hate God. But, the argument continues, there is no power to hate God if it is impossible to actualize that power; and it is impossible (at least for a being that acts in time) to actualize a power if that power could not be actualized at any time. The angel in question exists only for an instant and can't actualize its supposed power when it does not exist, so if it has the power to hate God, it can actualize this power at the very instant it exists. Aristotle's most general definition of the possible is that which, when posited, doesn't entail an impossibility. Suppose then that we posit that the angel hates God at the very instant it exists and see what follows.

We have already hypothesized that the angel is loving God, and we didn't take back that supposition, so we have now supposed that the angel is loving God and that the angel is hating God – and that is a contradiction. It seems that if we are to suppose that the angel that is loving God can, nonetheless, hate God for that same instant, we have to suppose that the angel cannot be doing what it in fact

is doing at the very moment it is doing it. That is what Principle A rules out.

Scotus sees this argument clearly and is moved to modify the principle that being other than you actually are requires change. His way of doing this is to take up a device used by thirteenth-century physicists to treat problems of the continuum and then extended to problems in theology – the device of *signa* or instants of nature. This device is grounded in another of Aristotle's senses of prior and posterior – what he calls priority and posteriority according to nature or substance. In the late Aristotelian tradition this idea was extended in various ways, and in the debates recorded, for example, in Averroës' *Tahafut al-Tahafut* and Maimonides' *Guide* we find an exploration of the idea that in creation the creator need not be temporally prior but only naturally prior to the created. In his *De primo principio* Scotus himself elaborates the notion in this way:

I understand "prior" here in the same sense as did Aristotle when in the fifth book of the *Metaphysics*, [relying] on the testimony of Plato, he shows that the prior according to nature and essence is what may be (*contingit*) without the posterior but not conversely. And this I understand thus: that although the prior may cause the posterior necessarily and therefore not be able to be without it, this, however, is not because it needs the posterior to be (*ad suum esse*). Rather the converse, because even if the posterior is held not to be, nonetheless the prior will be without a contradiction. But it is not so conversely because the posterior needs the prior, which need we can call 'dependence', so that we may say that every posterior depends essentially on a prior and not conversely, even though the posterior sometimes follows it [the prior] necessarily. Prior and posterior can be said according to substance and species, as they are said by others, but for precise speech are called prior and posterior according to dependence.<sup>7</sup>

Aristotle introduced natural priority in modal terms, but Scotus here explains it in terms of what can be posited without contradiction and explicitly claims that there can be necessary relationships (the posterior sometimes following the prior necessarily) that it would not be contradictory to deny. This sense of 'prior' takes on new significance in light of Scotus's *Propositio Famosa* – a claim to the effect that<sup>8</sup>

PF) The order among concepts is the order there would be among the significata of the concepts if these could exist separated from each other.

The *Propositio Famosa* enables Scotus to give a more fine-grained account of natural priority than we find earlier in the tradition and to employ in articulating it a number of logical devices. The result is that we cannot only meaningfully order two items with respect to each other as naturally prior or posterior but we can induce larger orderings that share many of the properties of time. In particular we can sometimes induce orderings of nature in which we can meaningfully speak of items as naturally prior, naturally posterior, or at the same point. Once we have this much, we can introduce the idea of an instant of nature as a way of talking about the items that are at the same point in the natural ordering.

To see this more clearly it might help to reflect a little on how an instant of nature might be constituted. Once one is open to the thought that there are types of causation that are not changes, it does not seem so farfetched to suppose that not all causal relations (largely understood) involve succession in time. For Scotus the productive relations within the Trinity serve as obvious cases in which no temporal succession is involved, and the creation of the world (and with it motion and so time) is another. Even in natural philosophy the picture of light's being propagated instantaneously through a diaphanous medium by the sun, a hypothesis certainly compatible with the empirical data available to Scotus, served as a case of a causal process in which the effect and the cause were coincident in time and in which, despite the temporal coincidence, there is a clear sense in which emission of light by the sun is prior to its reception on the earth. Now if one holds, as Scotus did, that in the relevant sense a power must be prior to its actualization (see *In Metaph.* 9, q. 14, for example) and one accepts the *Propositio Famosa*, one could generalize these examples to produce a partial ordering of instants of nature. A is naturally prior to B if and only if mention of A is required in giving an explanation of B. We can now give a sufficient condition for the distinctness of two instants of nature  $n_1$  and  $n_2$ . They are distinct just in case something indexed to  $n_1$  is naturally prior to or naturally posterior to something indexed to  $n_2$ . We shall return to this partial ordering when we discuss Scotus's modal ideas in his proof of the existence of God.<sup>9</sup>

In the context of the angel existing only for a single temporal instant, Scotus treats an instant of time as divisible into a sequence of instants of nature. The present instant can, at a minimum, be

regarded as a pair of instants of nature ordered as before and after in nature. The prior is that in which the angel has both the power to love God and the power to hate God, and the posterior is that in which the angel has actualized the power to love God. These are prior and posterior in nature because the power to love God is naturally prior to its actualization. Since "in" the instant of time there is an instant of nature (namely the prior of the two) at which the angel has the power to hate God, we can say that the angel has the power to hate God at that instant of time (and could, relative to that "prior" instant of nature, actualize it at the posterior instant of nature), and thus the angel is now free.<sup>10</sup>

Scotus thinks that it is because of this ordering of nature within the present instant of time that we can speak of the present as being only contingently the way it is. It is as if the past and future met in the present instant with the prior instant of nature belonging to the past (as its endpoint) and the posterior one to the future (as its beginning).<sup>11</sup> So, as we might by now expect, Scotus's response to Principle A and the rule of *Obligatio* embodying it is to reject them both.<sup>12</sup>

Scotus argues that the present is contingent, but he insists that it is determinate and, in at least one explicit discussion of the matter, he insists that, unlike the future, it is actual.<sup>13</sup> In so distinguishing determination from necessitation he is part of an early fourteenth-century movement that reshaped the terms of the discussion of future contingents. As we shall see in Section III, the distinction between determination and necessitation plays a role in his discussion of how the will can be inferior to another cause in an essential order and still be free.

The contingency of the present, or more precisely the contingency of what has not "passed into the past," is a notion that Scotus employs widely. In the human case he uses it to explain what it is for a human will to be free at a time  $t$ : a human will is free at  $t$  just in case it has at  $t$  the power to do at  $t$  other than what it is doing at  $t$ . In the divine case Scotus relies on this notion to explain how there can be contingency in the world at all. He argues that since divine causal cooperation is required for everything, and since God is immutable, if God's activity were not contingent "while" it is happening, nothing would be contingent. There can be no doubt that Scotus does think that at the present moment things could be other



than they are. This contrasts sharply with views like Ockham's or Holkot's that at least purport to accept Principle A. Nevertheless, for Scotus, the alternatives to the present at the present are exactly the actualizations of the potentialities there are at present. Unless there are the same potentialities at every time, what is possible will vary from time to time, and so time and modality will not yet have completely separated.

Moreover, although he rejects the necessity of the present, Scotus thinks that the past is necessary. For example in his *Lectura* 1, d. 40, q. un., he considers the objection that

what passes into the past (*transit in praeteritum*) is necessary – as the Philosopher wishes in Book 6 of the *Ethics*, approving the saying of someone who says that “this alone is God not able to make, that what is past is not past.”

He replies:

To the first argument, when it is argued that that which passes into the past is necessary, it is conceded. And when it is argued that this one's being predestined passes into the past, it should be said that it is false. For if our will were always to have the same volition in the same immobile instant, its volition would not be past but always in act. And thus it is of the divine will, which is always the same. . . . Hence [with respect to] what is said in the past tense – that God has predestined – there the 'has predestined' joins (*copulat*) the now of eternity as it coexists with a now in the past.<sup>14</sup>

This is a bit gnomic but seems to say both that there is no past for God – whose act is like an eternal present – and that although that act has coexisted with our past, it does not share the necessity of our past. On the other hand the passage also seems to say that what is genuinely past really is necessary. If what is genuinely past is what is past for us, this raises a very delicate issue of whether what is in our past is really necessary or not. I know of nowhere where Scotus himself faces this issue clearly.

In Chapter 4 of *De primo principio* Scotus argues from the premise that something causes contingently to the conclusion that the First Cause is an agent endowed with a will (DP 4.15).<sup>15</sup> He then argues from the premise that the First Agent is endowed with a will to the conclusion that the First Cause causes contingently whatever it causes (DP 4.23). He has already argued in Chapter 3 that every cause except the first causes only insofar as its causing is itself caused by

the activity of the first cause. Since the human will is a cause in the relevant sense, it follows that it too causes only insofar as its causing is caused by God. This obviously raises the specter of determinism, and Scotus apparently thinks that he banishes this specter by showing that the First Cause causes contingently and that the human will is a rational power (that is, a power that is not of its nature determined to a particular effect in given circumstances). Is he justified in thinking this?

## II. POSSIBILITY AND THE EXISTENCE OF GOD

To answer this difficult question we must first look more closely at the structure of the first part of Scotus's proof of the existence (and infinity) of God, which Scotus presents in his *Ordinatio* and develops at greater length in *De primo principio*. The two presentations overlap considerably, and in what follows I will focus on the more detailed version in *De primo principio*.

Scotus begins Chapter 1 of *De primo principio* by introducing the notion of essential order. The term, he says, is equivocal and includes both orders of items according to (pure) perfection and orders of items according to dependence – a notion that, as we saw in the previous section, Scotus immediately associates with natural priority. He then proceeds to identify four “direct” orders of dependence, one corresponding to each of the four Aristotelian causes, and two orders that relate items indirectly – through their mutual relations to some third item. He argues that this classification of orders of dependence is complete. In the second chapter Scotus argues that the various types of dependence are so ordered that if an item depends on something else in any of the orders, both it and what it depends on depend in turn on something in the order of efficient causes and on something in the order of final causes. In the third chapter he argues that there necessarily is a unique nature that is prior to all others in the order of efficient causes, the order of final causes, and the order of eminence. The proof itself focuses on the order of efficient causes.

Possibility enters the proof at the very beginning because Scotus begins with the premise that

P) Some nature is contingent; therefore, it is possible for it to be after not being (DP3.5).

From this he immediately infers

C1) Some nature can produce (DP 3.4), and then presents a subargument to the conclusion that

C2) Some nature is simply first, that is, it is neither causable nor does it cause in virtue of something else (DP 3.7).

In many ways the core of the proof is in this subargument. It is there that Scotus argues that, although a sequence of causes ordered accidentally could be infinite in extent, a sequence of causes essentially ordered could not. The key to this argument is Scotus's account of the distinction between an essentially (or *per se*) ordered and an accidentally ordered causal sequence.

The terminology of essentially or *per se* versus accidentally ordered causal sequences at once brings to mind Aristotle's distinction between *per se* and accidental causes but, as Scotus himself emphasizes (DP 3.10), it is crucial to his argument not to conflate an essentially or *per se* ordered sequence with a sequence of *per se* causes. In the causal sequence child – parent – grandparent – great-grandparent, and so on, each link in the causal chain is one of a *per se* cause to its effect, but this sequence is Scotus's paradigm of one that is accidentally, not essentially, ordered. Instead of focusing on the intrinsic character of the causes at work, we should, Scotus advises, focus on the role they play in the causal process. A sequence of causes essentially ordered is one all of whose members operate to produce a single effect of a single *per se* cause. Scotus himself characterizes a sequence of causes essentially ordered this way:

*Per se* or essentially ordered causes differ from accidentally ordered causes in three ways. The first difference is that in *per se* [ordered causes] the second, insofar as it causes, depends on the first. In accidentally [ordered causes] this is not so, although [the second] may depend [on the first] in being or in some other way. The second [difference] is that in things ordered *per se* there is causality of another *ratio* and order. In accidentally [ordered causes] it is not so. This [difference] follows from the first, for no cause depends essentially in causing on another cause of the same *ratio*, because in causation one of a single *ratio* suffices. A third [difference] follows – that all causes ordered *per se* are necessarily required at the same time for causing [the effect]; otherwise some causality *per se* to the effect would be lacking. Accidentally ordered [causes] are not required [to act] at the same time.<sup>16</sup>

Although the most obvious distinctive mark of an essentially ordered sequence is the third – that all its members act at once – Scotus

claims that this is a consequence of a deeper difference. This difference is that a posterior member of the sequence depends on those prior insofar as it causes (*inquantum causat*) rather than for its existence. A prior cause in an essentially ordered sequence does not cause a posterior cause but causes (in a sense of 'cause' with a different *ratio*) the causal activity of the posterior cause. To understand this dark doctrine we must look to what Scotus takes to be another consequence of it – that, since to produce a given effect one *per se* efficient cause is enough, we should understand the prior members of the sequence to exercise a different kind of causality, one of "a different *ratio* and order (*ordo*)" (DPP 3.11). We are not to understand the prior members of a sequence essentially ordered to a given effect to act as partial causes of the effect combining with the usual efficient cause to yield the total efficient cause of the effect. Scotus is happy to think that the total efficient cause of an effect is just what we thought it was; the efficient causes prior to it in the essential order play a very different role.

There is much here that is still mysterious, but I think we can see already that to think of God's relation to an event like an act of the human will as that of a cause of the event of the same kind as the will itself is to mistake Scotus's picture radically. God does not cause the act of will in the sense that the will does. God is not total or partial, final or efficient or formal cause of the will's act. God causes the will's causing of its act. Exactly what this means is far from clear. I suggest that at least this much is true: God causes it to be the case that what the will does is a causing of its act.

From this perspective we can see both why Scotus thinks that were God's act to be past, what it is causally connected with would be necessary, and why, given that God's act is still contingent, the act of the will is free. Were God's act to be past it would already be the case, and so necessarily be the case, that what the will is doing is producing that act. Given that it is still contingent whether what the will is doing is producing that act, it is in the power of the will to not be producing that act.<sup>17</sup>

The conclusion of this stage of the argument is just that some nature is uncausable and were it to exercise causality would do so independently. To get to

C4) Some simply first cause exists in act and some nature actually existing is thus a cause

we need an argument of a different kind. Scotus argues that since a simply first nature cannot be caused, then either it exists *a se* or it is impossible. If it were possible but did not exist, he suggests, then it would have to come into existence; and, he seems to assume, coming into existence requires a cause. C<sub>2</sub> shows that it is possible. Hence it exists *a se*. Here we have Scotus assuming that

**Principle S:** what does not exist but can exist can be caused to exist (DP<sub>3.19</sub>).

Scotus strengthens his result in

C<sub>5</sub>) Uncausable being is necessarily of itself (DP 3.21).

Here the argument is that if something that does exist can not-exist then something privately or positively impossible with it can exist – where A is privately impossible with B if A entails a lack of something B requires to exist. Scotus argues that anything privately or positively impossible with an uncausable being would itself have to be uncausable and so, if it could exist, would itself exist by C<sub>4</sub>. But then we would have two actually existing impossibles. That is impossible, so there cannot be anything impossible with the First uncausable Being.

It is striking how far this modal framework is from one in which we consider possible situations unconnected with one another by relations of causality and their ilk. A twenty-first-century theorist might suggest that there is nothing absurd about the idea of there being in some possible situation the uncausable being X although X failed to be in the actual situation. We do not need to look for factors that account for X's being in one and not the other – these facts are primitive. For example, let X be that nothing whatever exists. Nothing in our current modal theory shows that to be impossible, and we might consistently suppose X possible and at the same time suppose that in another possible world (perhaps this one) there is another uncausable being, which many are prepared to call God. Scotus reasons otherwise. What exists exists in every situation in which its causal requirements are met and nothing preventing it exists. Hence, if something does not exist but could, then there is a privative or positive cause of its nonexistence.

## III. NECESSITY AND FREEDOM

Scotus claims that the contingency of God's causal activity with respect to creatures is a necessary condition for human freedom. A number of writers have suggested that human acts are nonetheless necessary relative to God's act and hence, even if contingent absolutely speaking, are necessary in the sense required by the usual understanding of determinism.<sup>18</sup> It was suggested in the last section that this line of argument mistakes God's causal activity as a higher-order cause for efficient causing in the usual sense. It is now time to treat this issue more fully.

In *De primo principio* 4.18 Scotus distinguishes between a sense of 'contingent' that is opposed to the necessary or sempiternal and another in which something is contingent only if "its opposite was able to be at the very time that it [the thing in question] was." In this sense something is contingent only if it is *contingently caused* when it is caused. It is this second sense of 'contingent' that is relevant to discussion of freedom of the will.

Scotus is anxious to safeguard the freedom of both the human and the divine will. In several places, including Chapter 4, Conclusion 4 of *De primo principio*, he argues that it is characteristic of a will to cause contingently, and that it is necessary for anything to will that the first cause be a will and cause contingently. As we have already seen, Scotus thinks that such contingent causation requires that we posit in the will a nonevident power for opposites.

This does not entail that all acts of will are contingent. Scotus argues, notably in *Questiones Quodlibetales* q. 16, that the acts by which God loves himself and by which the Father and the Son spirate the Holy Spirit are acts of will and are simply necessary.<sup>19</sup> He claims that this is because the divine will is infinite and hence "is related to the supremely lovable object in the most perfect way that a will can relate to it. But this would not be the case unless the divine will loved this object necessarily and adequately."<sup>20</sup> We conclude then that loving an object necessarily is a more perfect way of loving it than loving it contingently. Scotus goes on in the second article of question 16 to claim that liberty is an intrinsic condition of a will as such and so must be compatible with the most perfect way of exercising the will. Since, as has already been claimed in the case of God's love of himself, the most perfect way for a will to act

is necessarily, it follows that acting necessarily is compatible with liberty.

Of course it does not follow from this that every sense of 'necessity' or every way of acting necessarily is compatible with liberty. Scotus is particularly concerned to distinguish freely acting necessarily from naturally acting necessarily. These involve, he suggests, two ways in which a thing can be more or less determined. He writes:

To the claim, then, that a natural principle cannot be more determined than a necessary principle, I say: Although the necessary be most determined in the sense that it excludes any indetermination as regards an alternative, nevertheless one necessary thing may in some way be more determined than another. That fire be hot or the heavens be round is determined by the cause which produced simultaneously the being of the heavens and its shape. A weight, on the other hand, is determined to descend. Still, it does not receive from its progenitor the act of descending, but only that principle that naturally causes it to descend. But if the caused will necessarily wills anything, it is not determined by its cause to will such in the way the weight is determined to descend. All it receives from the cause is a principle by which it determines itself to this volition.<sup>21</sup>

What seems to be under discussion here are three ways in which a thing might come to have a property necessarily. It might be directly caused to have the feature necessarily, caused to have a nature in virtue of which it has the feature necessarily, or caused to be such that it can freely cause itself to have the feature necessarily. Scotus evidently thinks that something that comes to have a feature necessarily in one of the first two ways is in some sense more determined than something that comes to have the feature necessarily in the third way. He thinks this even though in all three cases it is impossible that the feature be absent.

What is it, then, to freely cause oneself to have a feature necessarily, as contrasted with being caused naturally to have the feature necessarily? Scotus explains it using nested counterfactuals:

Every natural agent either is first in an absolute sense or, if not, it will be naturally determined to act by some prior agent. Now the will can never be an agent that is first in an absolute sense. But neither can it be naturally determined by a higher agent, for it is active in such a way that it determines itself to action in the sense that if the will wills something necessarily, for

example A, this volition of A would not be caused naturally by that which causes the will even if the will itself were caused naturally, but once the first act by which the will is caused be given, if the will were left to itself and could have or not have this volition contingently, it would still determine itself to this volition.<sup>22</sup>

We have here a thought experiment conducted under two suppositions. Consider the case of a will that causes itself to have a volition necessarily. First, suppose that the will itself is caused – even caused naturally – but that the natural cause of the will does nothing further by way of eliciting an act of the will. Second, suppose that the feature we are considering to be brought about necessarily by the will is not necessarily present. Still, Scotus claims, that feature would *be* present because the will would itself bring the feature about. This contrasts with the case of a natural agent. If we suppose that a natural agent exists but that nothing is acting on it, then if the feature were not there necessarily it would not be there at all. In other contexts Scotus speaks of the necessity of an act freely willed as a necessity that is consequent upon the will's choice, whereas the necessity of something naturally produced either precedes or accompanies the agent's activity.

In what sense of 'necessarily' could a will cause itself to will necessarily? Scotus argues that it is in the sense in which *necessitas* is *firmitas* – steadfastness of will. He makes this clear in *Quodl.* q. 16, where, in speaking of the kind of necessity that perfects an action he identifies it with *firmitas*. Such *firmitas* rules out mutability but does not rule out the nonevident power for opposites.<sup>23</sup>

But is this enough? Suppose we grant that the human will has the nonevident power for opposites, that God has it too, and that God causes contingently whatever God causes. If we also grant, as Scotus's proof for the existence of God requires, that God is a higher-order cause with respect to the human will's production of its effect, and grant, as Scotus explicitly requires, that God knows the future by knowing his own choices, can we avoid the conclusion that God's choices so determine the choices of every human will that a twenty-first-century philosopher would say the choices of the human will are necessitated?

According to Scotus a will is a self-mover and, in particular, one that is not determined by nature to one rather than another of a pair of contradictories. Scotus claims that we experience that we could



have not willed or willed the contrary of what we in fact did will.<sup>24</sup> When we do act rather than not, or act in one way rather than another, there is no cause of such a choice other than that "the will is the will," as he likes to put it. This indeterminacy in the will is not because of a lack of actuality in the will but because of a superabundant sufficiency derived from a lack of limitation of actuality (*superabundantis sufficientiae quae est ex illimitatione actualitatis*). Things that are indeterminate in this second way are able to determine themselves, and that is what the will does.<sup>25</sup>

All of this, and especially the last, suggest that the will is not acted upon, strictly speaking, by anything else, but this must be reconciled with the claim that the human will is, after all, a creature and so, in its activity, essentially ordered to God as a higher-order cause. As was stressed in the last section, higher-order essentially ordered causes are typically not causes of the effects to which they are ordered. They are, rather, causes of the causing of those effects by the causes that do cause them. Hence, while God causes any given human will, God does not cause the willing of that will. Instead God causes it to be the case that the willing of that will is a production of what it does produce. Scotus seems to think that the only efficient cause of a willing is the will that does it. God is not another, partial, efficient cause of that willing. Nonetheless, it is the case that, were God not to act, the human will would not suffice to produce its act. It is also the case that God's acting as a higher-order cause of the will's willing of A is not compossible with the human will's not willing A. Moreover, it is the case that God's willing is not causally dependent on the acts of the human will. In this context, how it is possible that a human act be free?

This problem is most acute for the blessed in heaven because Scotus claims that in some sense of 'cannot,' they cannot sin. Yet Scotus also insists that they retain their wills and their freedom – from which it seems proper to infer that they retain the nonevident power for opposites. So they have a power – and a possibility of acting – that they necessarily will not exercise.

Scotus's resolution of this aporia relies on his distinction of *firmitas* from other types of necessity. God ensures *firmitas* to the blessed in heaven, and so while they retain the power to refrain from loving God and so *can* refrain, they steadfastly (and in that sense necessarily)

exercise their power to love God. How does God ensure *firmitas* to the blessed? Scotus does not say.<sup>26</sup>

#### IV. LOGICAL POSSIBILITY

So far I have written as though for Scotus what is possible is just what there is a power to bring about. But that there is some significant difference between them seems clear in the light of passages like *Ordinatio* I, d. 7, q. 1, n. 27. There he writes:

I respond to the question therefore in the first place by distinguishing 'potency'.

For in one way a potency which is said to be a mode of composition made by an intellect is called 'logical'. And this indicates the non-repugnance of terms of which the Philosopher in *Metaphysics* V, ch. "De Potentia," says "that is possible of which the contrary is not true of necessity." . . .

If before the creation of the world not only had the world not been but, *per impossibile*, God had not been, but [God] had begun to be *a se*, and then had been able to create the world, [then] if there had been an intellect before the world composing this: 'the world will be', this would have been possible because its terms are not repugnant.

One of the oldest debates among interpreters of Scotus is over the nature and significance of this *potentia logica*. The debate seems to have reached its classical form in the seventeenth century, when Johannes Poncius interpreted Scotus as holding that whatever is possible is possible of itself apart from any power to realize it, and Bartolomeus Mastrius defended the view that possibilities depend upon God for their very possibility. In this form it has reappeared in twentieth-century discussion.<sup>27</sup>

There are in fact several issues here. There is first whether the existence of a *potentia logica*, that is, of a nonrepugnance among terms, is sufficient for possibility apart from any "real" power to realize the state of affairs in question. A second issue is whether that *potentia logica* itself does or does not presuppose or involve any real power. Then there is the question of whether there is a real power corresponding to every *potentia logica* and the question of the relationship between this issue and the proofs of the existence

of God that Scotus offers both in his *Ordinatio* and in the *De primo principio*.

Scotus characterizes the notion of logical possibility in terms of a (non) *repugnantia terminorum* but appears to take the notion of a *repugnantia terminorum* itself as primitive. He never attempts to characterize it in other terms and to elucidate it provides only examples and special cases. Explicit contradictions are a special case of *repugnantia*, but they cannot be the only case, because Scotus admits impossibilities that cannot be shown to be so in an *obligatio* under impossible *positio*, and any explicit contradiction could be so shown. One might guess that the notion of *repugnantia* extends at least to cases of contraries (like 'red' and 'green'), where there seems to be something that we might now characterize as a semantic tension, even if we have no good theory of exactly what the tension consists in. But what of other cases? The doctrine of the Incarnation, as Scotus understood it, requires that the same *suppositum* could be both God and human, and so it cannot be that there is a *repugnantia* in the conjunction "Christ is God and Christ is human"; and while Scotus never says so, his account of the Incarnation seems compatible with the assumption by the Word of other natures besides human nature. Perhaps there is no *repugnantia* in ascribing any group of substantial predicates to the same *suppositum*. What then of the cases sometimes discussed in late-twentieth-century philosophy under the heading of a posteriori necessary truths – cases in which the nature of something is discovered empirically and it is then suggested that it would be impossible that that thing not have that nature – as it would be impossible that gold not have the atomic number 79? Scotus apparently counts the denial of a part of the real definition of a species and the denial of a *proprium* of a species as cases of *repugnantia*. Given the isomorphism between metaphysical structure and conceptual structure expressed in the *Propositio Famosa*, it would seem that he would think anything there is to be discovered about the metaphysical structure of things is reflected in the divine idea of it and so is reflected in an adequate concept of it. If this is right, then the distinction between semantic incompatibility and metaphysical incompatibility vanishes, and with it the distinction between logical necessity and metaphysical necessity found in some late-twentieth-century modal theories. Thus, Scotus's *potentia logica* could be identified

with logical possibility in a late-twentieth-century sense only with reservation.

As we have seen already, for Scotus an affirmative predication asserts a unification of some kind between the subject and predicate. Since a unification certainly requires a nonrepugnance, for Scotus the truth of any affirmative categorical sentence whatever involves a nonrepugnance among terms. The claim that the muskox is an ungulate is true only if there is no repugnance of 'muskox' and 'ungulate'. In many cases the truth of an affirmative categorical sentence requires more. In any case the truth of the sentence requires the sentence, and since the sentence is some kind of being, no sentence exists apart from every real power, and so none, no matter what its modal status, is true apart from every real power.

But this hardly gets to the root of the issue between those who think that Scotus regards a *potentia logica* as sufficient for possibility and those who deny it. Within 40 years of Scotus's death, Jean Buridan was carefully formulating a distinction between the possibility of things' being as a sentence describes and the possible truth of the sentence itself. The latter requires that the sentence exist in the situation it describes, but the former does not – and seems in general not to require the existence of any sentence at all. Surely we can ask whether, even if nothing, not even God, existed, it would still be possible that God or the world exists.

Both in the seventeenth century and in our own time there have been scholars who read the passage last quoted as evidence that the possibility of "The world will be" did not depend on the existence of that sentence or on any real power. After all, the situation we are to consider is one in which nothing yet exists. True, we then consider an intellect that composes a sentence, but there is at least the suggestion that the possibility of the sentence is in some sense there when the sentence is composed and does not depend upon its composition. One might suggest that the example is tortuous precisely because Scotus is somewhat obscurely anticipating Buridan's distinction between the possible and the possibly true and wants us to evaluate not the truth of the sentence but the possibility that the world will be in the counterfactual situation in which nothing whatever exists.

This is, I think, a plausible reading of the passage, but it is not an unproblematic reading. The passage is immensely complicated. First, it involves iterated reasoning under an impossible assumption – and

reasoning under an impossible assumption is something that for Scotus is a technical matter – one to which we shall return below. Second, the passage involves some rather complicated interaction of modality and tense. Suppose we draw a distinction like Buridan's. Then, Scotus seems to suggest, for the possibility that the world will be we require that God had begun to be *a se* and had then been able to create the world. It seems to be the natural reading of this that while the possibility that the world will be doesn't depend on anything actual, it does depend on something that, by hypothesis, *will be* actual and will *then* have a power to create the world. This is, no doubt, a rather unusual foundation for a possibility, but it does seem to suggest that possibilities do after all require a categorical foundation – even if not a present-tensed one. What we seem to be told here is that it *is* possible that the world will be because there *will be* a God with the power to create it. This seems rather far from the thought that *all* that possibilities require is a nonrepugnance of terms.

Consider on the other hand what is required for the possible truth of the sentence "The world will be." At a first approximation we require the sentence. Hence, we require its terms so that relations of repugnance or nonrepugnance might exist between them. But although we have talked amiably about the terms of spoken sentences and of mental sentences indifferently, it is pretty clear that Scotus thinks it is among the terms of mental sentences that relations of repugnance hold in the first instance. These terms are concepts; and concepts, as the *Propositio Famosa* teaches us, mirror the metaphysical structure of what is conceived. Relations among concepts mirror relations among essences.

Consider now this passage from *Ordinatio* I, d. 43:

So it is in the [case] being considered: 'not being something' is in man and in chimera from eternity. But the affirmation which is 'being something' is not repugnant to man – instead the negation inheres [in man] solely on account of the negation [which is] of the cause not being present. It is repugnant to chimera, however, because there is no cause which could cause its 'being something'. And the reason why it is repugnant to chimera and not to man is that this is this and that is that. And this is so whichever intellect is conceiving, since whatever is repugnant to something formally in itself is repugnant to it, and what is not formally repugnant in itself is not repugnant to it as was said. Nor should we imagine (*fingendum*) that it is not repugnant to man because [a man] is a being in potency and it is repugnant to chimera because

[a chimera] is not a being in potency. Indeed, it is more the converse: because ['being something'] is not repugnant to man, [man] is possible by a logical potency, and because it is repugnant to chimera, [chimera] is impossible in the opposite [manner]. And this is so, even positing the omnipotence of God, which is with regard to everything possible (as long as it is other than God). Nevertheless, that logical possibility could stand absolutely by its nature, even if *per impossibile* there was no omnipotence with regard to it.

If we consider this text in the light of our discussion of *Ordinatio* I, d. 7, q. 1, n. 27, a natural reading of it is that (to take Scotus's example) the concept of 'chimera' is internally incoherent in the sense that the metaphysical constituents out of which the common nature of chimera would be composed (the *notae*) simply cannot be combined, and that is why there is a further repugnance between 'chimera' and 'being something'. But this repugnance presupposes that 'chimera' is itself a complex term in which several *notae* are combined. A chimera is perhaps an animal with the head of a lion, the body of a goat, and the tail of a serpent. These *notae* are themselves complex and could be analyzed in the same way. On Scotus's view, we eventually reach simple *notae*. Suppose we ask then whether all simple *notae* are possible – and further, whether they are possible of themselves. Scotus adds:

This, therefore, is the process there: just as God in his intellect produces a possible in possible being, so also he formally produces two entities (each in possible being). And those products themselves are formally impossible, so that they could not simultaneously be one [thing], nor could there be a third [composed of them]. This impossibility which they have they have formally by themselves, and "princiatively" from him who produced them in some mode. And from their impossibility there follows the impossibility of the whole fictional construct (*figmenti*) that includes them. And its impossibility with respect to any agent whatever [[follows] from the impossibility of the construct in itself and the impossibility of its parts.<sup>28</sup>

There are several things to be noted about this passage. First, the process begins with a natural divine production *in esse possibili*. These possibilita are naturally and *ex se* either compossible or not. The compossible ones can be combined to produce complexes with *esse possibile*. When these primitives are naturally repugnant they cannot be so combined. The very idea of a primitive *ens impossibile*

is nonsense on Scotus's view. As he puts it in the same chapter:

And from this it is apparent that the imagining of those seeking the impossibility of some things as if [the impossibility] were in some one thing, is false – as if something one – whether an intelligible being or whatever [other] kind – were formally impossible in itself, in the way in which God is formally necessary being in himself. . . . Rather, everything that is unqualifiedly nothing includes in itself the essences (*rationes*) of many.<sup>29</sup>

So it seems that for Scotus impossibility is a fundamentally relational idea. We can intelligibly speak of it only when we are dealing with several *notae*. Similarly, we can only ask whether *notae* are consistent when we are dealing with more than one. Thus, in the typical cases the question of whether some possible is possible of itself reduces to the question of the status of a relation among its metaphysical constituents: Are they related of themselves, and in what sense does that relation presuppose its relata?

I suggested above that the simple *notae* are in one sense possible – they aren't internally incoherent and can be combined to produce natures that are compatible with being something, that is, could exist. But they are not possible in the sense that they could exist by themselves, and in their case the question of whether they have their possibility of themselves seems especially odd. Their having any status at all depends on God *principiative*. But since their being possible is simply their lacking a relation of repugnance to themselves, why not say that they are possible *formaliter* of themselves? Here the debate over whether the possibles are possible of themselves seems to have lost its point.

We have seen that, whatever he makes of it, Scotus introduces a *potentia*, the *potentia logica*, corresponding to the nonrepugnance of terms. What has not yet been stressed is that he introduces this precisely to correspond to what he understands to be one of Aristotle's senses of 'possible'. Let us look a little more closely at the context. He writes

in response to the question therefore in the first place by distinguishing 'potency'. For in one way a potency that is said to be a mode of composition made by an intellect is called 'logical'. And this indicates the non-repugnance of terms, of which the Philosopher in *Metaphysics* V, ch. "De Potentia," says "that is possible of which the contrary is not true of necessity."<sup>30</sup>

Scotus contrasts this potency with the potency that "is said to be divided against act," which is not found in God, and the "real potency" that is said to be "a principle of acting and being acted on." He makes it clear in *In Metaph.* 9, qq. 1-2 that this is for him a fundamental division of potency, and his introduction there of *potentia geometrica* to correspond to the possibility of mathematical claims suggests that he thinks there should be a kind of potency - real or metaphorical - corresponding to each sense of 'possible'.

The connection between possibility and power is made tighter for Scotus by his claim that there is a real power corresponding to every logical power. From a medieval theologian this claim is not surprising, closely connected as it obviously is with such claims as that God can bring about whatever does not include a contradiction, but it raises the complex issue of whether it is part of the very conception of a logical power that there *be* a real power that can realize it. Is it even part of that conception that there *can be* a real power to realize it?

Scotus's proof of the existence of God is, he says himself, a proof in the quidditative order. We learn something about the nature of a contingent being when we see how it depends upon a first efficient cause. Scotus intends his argument to be a demonstration and so not to require any contingent premises. The argument proceeds from the necessary premise that some being can exist to the conclusion that God must exist. Hence, if it is a demonstration, it rules out as impossible any situation in which a being can exist and God even could fail to exist. This is precisely the kind of situation to which Scotus appeals in the passage from *Ordinatio* 1, d. 7, quoted two paragraphs earlier. So it is already clear that the situation there described is impossible. How then are we to reason in it?

Thirteenth- and fourteenth-century theorists worked out rather elaborate accounts of reasoning from an impossible premise and enshrined them in the theory of impossible *positio*. Central to Scotus's understanding of the theory (which he clearly knew very well) is the thought that from an impossible assumption or *positio* one can reason only using what he calls natural or essential consequences and not using accidental consequences or ones that hold only through an extrinsic middle. That is, one can reason from an impossible assumption to any conclusion that is contained in the understanding (*de per se intellectu*) of the assumption, but not to one which is not.<sup>31</sup>



If all of this is correct, then in the thought experiment of Book 1, d. 7, Scotus is inviting us to consider a situation in which there is no world and there is no God but in which it is nonetheless still possible that the world will be. But, as his proof of the existence of God shows, a situation in which it is possible that the world will be is one in which God in fact will be – and, since the world depends essentially upon God, that God will be follows by essential consequences from the claim that it is possible that the world will be. Hence, while Scotus does not have to include in his description of the situation of the thought experiment that God is, he does have to include that God will be. Since God is uncausable, God will be *a se*.

Of course, Scotus thinks that it is impossible that God does not exist but will. Indeed, Scotus's proof for the existence of God itself involves a subargument to the effect that if God does not exist, it is impossible that God come to exist. But that is irrelevant here. The entire thought experiment is carried on under impossible assumptions, and what is crucial is not whether an assumption is impossible but whether it follows formally from the claim that it is possible that the world will exist. Scotus's argument that if God did not exist God could not exist depends on the claim that if (*per impossibile*) God did not exist, it would be because something existed privatively or positively impossible with his existence. But it would be remarkable if the proof that such an impossible could not cease to exist (and hence that God could not come into existence *a se*) were contained in our understanding of what it is for it to be possible that the world will be – and so remarkable if it followed formally from such an assumption. Scotus apparently does not think it does and so thinks he can, without formal contradiction, assume both that the world is possible and that God does not exist. What he cannot assume without formal contradiction is that the world is possible and God will not exist.

Although a natural (perhaps the most natural) reading of *Ordinatio* 1, d. 7, this interpretation is strained as a reading of a very slightly different passage in *In Metaph*. There Scotus writes:

The logical power... is some mode of composition made by an intellect caused by a relation of the terms of that composition, namely because they are not repugnant. And although commonly there may correspond to it *in re* some real power, yet this is not *per se* of the *ratio* of this power. And thus it would have been possible for the world to be going to be before its creation

if there had been then an intellect forming this composition "the world will be," granted that then there would not have been a passive power for the being of the world, nor even, having posited this *per impossibile*, an active power, as long, however, as without contradiction there could be going to be an active power for this.<sup>32</sup>

Here Scotus seems to require, not that the active power that could bring the world into existence be going to be but merely that, without contradiction, it be able to be going to be.

We are now in very deep water indeed. If we take the *Ordinatio/De primo principio* proof of the existence of God to trace out a chain of natural or essential consequences from the premise that some contingent thing is possible to the conclusion that God exists necessarily, then even if we grant the impossible *positio* that God does not exist, we will be able to derive his existence from the *propositum* that it is possible that the world will exist. On the other hand, if we take seriously the suggestion here in *In Metaph.* 9, q. 1, that the bare possibility that the world will exist requires formally only the bare possibility that there be an active power to make it, then we seem forced to deny that the *Ordinatio/De primo principio* proof could proceed by natural or essential consequences. Since the proof explicitly has it that God lies at the top of every essential order that proceeds from a contingent thing, we must then conclude that it is the step from the possible existence to the actual existence of God that does not proceed by natural or essential consequences. But that is to say that someone who granted that the existence of God is possible but insisted that God does not actually exist could not be shown the error of his ways in a fashion that he would have to accept on pain of irrationality. And if that be so, then what does Scotus think his proof accomplishes?

However we resolve this conundrum, we can now, I think, answer some of the questions with which this section began. Scotus thinks that to say that some sentence is possibly true is formally merely to assert a nonrepugnance of its terms. This is the burden of the very last sentence of the preceding quotation from *Ord.* 1, d. 7. Thus, when we claim that "the world will be" is possibly true, we are not formally asserting anything about a power to bring the world about. But Scotus thinks that the issue of the nonrepugnance of terms has presuppositions. Since it is a question about terms, we must presuppose that there are the terms, and so that there is an intellect

that thinks the terms and that thinks the *notae*, the objective correlates of those terms. Moreover, the nonrepugnance of terms entails by a natural consequence at least that there *can be* an active power that could realize the situation the sentence described. Whether the nonrepugnance of terms naturally entails more – that at least there *will be* such an active power – is an issue on which our central texts seem unclear. Perhaps it is one about which Scotus himself was uneasy or on which he changed his mind.

## V. POSSIBLE WORLDS

Some scholars have noticed in Scotus an anticipation of the Leibnizian notion of a possible world. Scotus does not use the term “possible world” or any equivalent, but support for the idea that he has the concept comes from at least two places. First, as we have just seen, Scotus has as a basic notion in his modal picture that of a nonrepugnant collection of *notae*. Second, he claims that having thought the *notae*, the divine intellect naturally and in a single instant of nature considers all nonrepugnant combinations of them. Some of these combinations are such that it would be repugnant for their elements not to be so combined. These correspond to necessary propositions. Others are such that it is not repugnant for their elements either to be so combined or not. These correspond to contingent propositions. The divine intellect presents these contingent propositions to the divine will as not yet having a truth value, and the divine will then (in a second instant of nature) contingently determines each to be true or be false. The divine will thus contingently determines a maximal consistent collection of contingent propositions to be true. Such a maximal consistent collection of propositions is a description of (or, on some views, is) what both Leibniz and twentieth-century modal theorists would call a possible world. Assuming that the divine intellect considers the collections of these propositions and not just the propositions themselves (and given the entailment relations among contingent propositions it is hard to see how it could be otherwise), we have the idea that the divine intellect surveys all the possible worlds and the divine will chooses among them.

This picture is certainly Scotus's, and a very good case can be made that it lies behind Leibniz's own.<sup>33</sup> There are, nevertheless,

significant differences between Scotus's view and at least some more recent theories. First, there is no analogue in Scotus of the way in which Leibnizian possible objects mirror their whole universe. Scotus explicitly argues that God could not know the truth of contingent propositions simply by examining the divine ideas. If he could, Scotus claims, it would be because the connections that ground contingent truths would be "built into" the ideas themselves, and then there would be no contingent truths.<sup>34</sup> This is, of course, a famous crux for Leibniz scholarship – how can "Caesar will cross the Rubicon" be contingent if *crossing the Rubicon* is part of the concept of Caesar? Scotus's anticipatory answer is that it cannot, and so the divine idea of Caesar does not include such *notae*.

This difference is connected with a deeper (and wider) one. Modern modal theorists work with the notion of *truth in a world*. For example, possibility will be explained in terms of truth in some possible world. Scotus has the notions of truth and of logical possibility, but he does not work with the notion of truth "in" (or "of") some collection of divine ideas or some collection of propositions that God has not willed to make true. For Scotus, propositions that are logically possibly true are not logically possibly true because they belong to some collection of propositions. They are, rather, logically possibly true because their terms are not repugnant, and they are compossible with other propositions because their terms are not repugnant. Again, propositions that are really possibly true are not really possibly true because of their copresence with other propositions in a maximal collection but because there is a real power for realizing them. Thus, although one can find the ingredients in Scotus's picture for talking about possible worlds, the notion would do little or no work within that picture itself. There the basic notions are those of power (*potentia*) and repugnance (*repugnantia*).

## VI. CONCLUSION

That Duns Scotus is a pivotal figure in the history of modal theory seems beyond doubt. Although apparently not the first to claim that the present is as contingent as the future, he argued for and employed the thesis with such verve that the doctrine became associated with him. His successors further developed it so that by the middle of the fourteenth century there had emerged, perhaps for the first time, a

view that modality has no essential connection with time. Scotus articulated a notion of logical possibility as the nonrepugnance of terms and claimed that there is a real power corresponding to every logical possibility. Later thinkers took this equivalence to show that the only necessities were those expressible by sentences whose negations were formally inconsistent. For Scotus the theory of the will was central to both his theology and his ethics, and for him modal theory was central to his theory of the will. His focus on the power for opposites as the defining characteristic of a will and his effort to articulate this conception in his discussions of future contingents, foreknowledge, predestination, and the confirmation of the blessed has set much of the agenda in dealing with these issues right to the present day.

A pivot can face in more than one direction, and so it is with Scotus. While his picture led easily to the divorce of time and modality, he himself never completely divorced the two, retaining a significant distinction between the modal status of the past and that of the future and the use of notions of priority and posteriority modeled on temporal relations in his account of the contingency of the present. While his account of logical possibility suggests how possibilities could be completely independent of both intellects and real powers, he himself never completely divorced these either, always discussing even logical possibilities in a framework in which intellects and real powers are in the background. And while there are in his thought the ingredients for the accounts of modality in terms of quantification over possible worlds that we find in Leibniz and in theories developed in the second half of the twentieth century, Scotus founded his own modal picture on the notions of *repugnantia* and *potentia*. The Janus-faced character of Scotus's modal thought makes him especially important today both for the historian of modality – for whom he both sums up a tradition and begins one – and for the modal metaphysician concerned to look beyond modal theory to discover what possibility and its ilk really are – or could be.

#### NOTES

- 1 The discussion in this paragraph is based on the text of the *Octo Quaestiones* (= *In Periherm.* II, q. 8) found in Wadding I:221–3.
- 2 The entire discussion in q. 8 is remarkable not only for the divergence from the doctrine in Scotus's theological works but for the introduction

of the values "indeterminately true" and "indeterminately false," which are distinguished not only from determinately true and false but from true and false *simpliciter*. Scotus, if it is he, goes on to argue that the inference from a determinately true sentence to one indeterminately true is not valid, but he does not develop the logic further. For additional discussion see Normore 1993. I there took a stronger stand against the authenticity of the *Octo Quaestiones* and a weaker stand for the text's rejection of the inference from an indeterminate truth to a truth than I now think warranted.

- 3 The terminology of "synchronic picture" is taken from Simo Knuuttila. See Knuuttila 1993 and the references therein. There is an important difference between Knuuttila's way of posing this issue and my own. As he conceives it, one has a synchronic conception if one thinks that it is possible that  $p$  at  $t$  and it is possible that not- $p$  at  $t$  for *any time*  $t$  that accords with the tense of the verb of  $p$ . I do not think that there is any significant body of medieval opinion that would have denied this for *future* times. As I see matters, the debate is about whether it is possible that  $p$  at  $t$  and it is possible that not- $p$  at  $t$  when  $p$  is *present-tensed* and  $t$  is a name for the *present* time; thus, I prefer to talk about the contingency of the present. Marilyn Adams has pointed out to me that my own terminology is not unproblematic, suggesting as it does that the contrast is with a view that present-tensed *sentences* are, if true, necessarily true. I think that all of those medieval figures who maintain that the present is not contingent in my sense are fully aware that most present-tensed *sentences* become false as things change and so are not necessarily true. Exactly how to state their view (other than as the view that it is not the case that it is possible that  $p$  at  $t$  and it is possible that not- $p$  at  $t$  when  $p$  is present-tensed and  $t$  is a name for the present) and, in particular, how to state it in the language of their own tense and modal logics is an issue to which I hope to return elsewhere. In this connection, see *De primo princ.* 4.18.
- 4 See, for example, *Lect.* 1, d. 40, q. un., where he writes "Ad primum argumentum, quando arguitur quod illud quod transit in praeteritum est necessarium, - conceditur."
- 5 It is possible that the novelty of this move has been somewhat exaggerated. Stephen Dumont and others have shown that Henry of Ghent advances a doctrine very like Scotus's claim about the nonevident power of the will in his *Quodlibet* 10, q. 10. Dumont has pointed out that he applies it to problems about the vacuum in *Quodlibet* 13, and Susan Brouwer, Stephen Dumont, and Tim Noone that he applies it to the Immaculate Conception in *Quodlibet* 15, q. 13. There are related suggestions in Peter John Olivi's *Sentence Commentary*. Henrik Lagerlund has recently argued that Richard Campsall rejects the necessity of the

- present in his *Questiones super Librum Priorum Analeticorum*, dated at least before 1308. See Lagerlund 1999, 91–6.
- 6 William of Sherwood? *Obligationes*, cod. Paris Nat. Lat. 16617, f. 56 v. Quoted at Vatican 17:498, note 2.
  - 7 *De primo princ.* 1.8 in Wolter 1966, 4.
  - 8 This is not one of Scotus's formulations. One of the ways he puts it himself is "qualis ordo realis esset aliqua, si essent distincta realiter, talis est ordo illorum secundum rationem, ubi sunt distincta secundum rationem" (*Rep. prol.*, q. 1, a. 4, n. 39.)
  - 9 We can connect the notion of an instant of nature to the idea of *obligatio* by the following, again very speculative, idea:  $n_1$  is distinct from  $n_2$  if for some claim A indexed to  $n_1$  and some claim B indexed to  $n_2$ , were "A and  $\sim$ B" to be taken as *positum* in an *obligatio* under impossible *positio* it could be maintained. Thus, a single instant of nature could be treated as just the collection of claims that could not be distinguished in impossible *positio*. For criticism of my approach to this, see Martin 1999, ch. 7.
  - 10 In fact Scotus thinks that the power to hate God in this context just is the same power as the power to love God because both just are the will, which is a rational power in his sense.
  - 11 This metaphor may seem less farfetched if one considers that the device of instants of nature may be indebted to thirteenth-century efforts to understand how – although between any two points in the geometrical line there are others – if one divides a line AC into two segments AB and BC so as to leave nothing out one obtains segments both of which have termini. This seemed to some to require that the endpoint of AB has been in the same place in the line as the beginning point of BC. I think that Stephen Dumont and others have noted this connection but am unsure whether they agree with me about the direction of influence.
  - 12 This he does baldly, saying merely, "This rule is denied. Indeed the art of *obligatio* is well treated by that master without this rule. Hence it does not depend on the truth of this rule."
  - 13 For the claim that according to Aristotle the present is determinate and that the future is not, and Scotus's apparent acceptance of it, see *Lect.* 1, d. 39, qq. 1–5, n. 69. For Scotus's rejection of the claim that the future is actual, see *Lect.* 1, d. 39, qq. 1–5, n. 28 and n. 85. Richard Cross has argued that this does not represent Scotus's considered opinion: see Cross 1998, 244, and the work referenced there. I do not share Cross's view.
  - 14 *Lect.* 1, d. 40, q. un., n. 9.
  - 15 Because especially frequent reference to the text of *De primo principio* is necessary in this section I will refer to it within the body of the text as DP followed by the paragraph number in Wolter 1966.

- 16 *De primo principio* 3.11 (Wolter 1996, 47). I have used my own, excessively literal, translation.
- 17 The notion of higher-order causality involved here is closely connected with issues about instrumental and secondary causation. If I act on very specific authority from you to perform a certain act, it is I who act, but I would not be able to act were your grant of authority not simultaneously in effect. You do not cause my act, partially or totally, but your grant of authority does play an explanatory role in accounting for how what I do accomplishes its effect.
- 18 Notably Douglas Langston in Langston 1986.
- 19 *Quodl.* q. 16, n. 5. On this see Frank 1982a and Wolter 1972.
- 20 *Quodl.* q. 16, n. 6 (Alluntis and Wolter 1975, 370–1).
- 21 *Quodl.* q. 16, n. 16 (Alluntis and Wolter 1975, 385, ¶ 44).
- 22 *Quodl.* q. 16, n. 15 (Alluntis and Wolter 1975, 384, ¶ 43).
- 23 This point is owed to William A. Frank, who discovered that the oldest manuscripts of the *Questiones Quodlibetales* make the point that *firmitas in agendo est perfectionis* in a place where the printed editions, by substituting *libertas in agendo est perfectionis*, had blurred it. See Frank 1982b and the discussion in Alluntis and Wolter 1975, 14–16.
- 24 See *In Metaph.* 9, q. 15: “Experitur enim qui vult se posse non velle sive nolle, iuxta quod de libertate voluntaris alibi diffusius habetur.” See also *Lect.* 1, d. 39, qq. 1–5.
- 25 Cf. Wolter 1986, 152.
- 26 As the expert reader may have noticed, I have not repeated here the claim made in earlier work that Scotus is a “modal monist.” For some of the reasons why, see Peter King, ch. 1 in this volume.
- 27 Cf. Mondadori 2000.
- 28 *Ordinatio* 1, d. 43, n. 18.
- 29 *Ibid.*
- 30 *Ordinatio* 1, d. 7, q. 1, n. 27.
- 31 He develops his account in Book 1, d. 11, of his commentaries on the *Sentences* of Peter Lombard, where the issue under discussion is the *Filioque* doctrine that separates the Latins and the Greeks. The issue is whether the Holy Spirit proceeds from both the Father and the Son, as the Latins hold, or from the Father alone, as the Greeks hold. Both sides hold that their view is a necessary truth. One issue that comes up in Latin discussions is whether the Greek view has the consequence that the Holy Spirit cannot be distinguished from the Son. To explore this they must reason from the (impossible as they think) premise that the Holy Spirit does not proceed from the Son. One view (sometimes attributed to John of Berwick) held that such reasoning could not be carried out because to suppose the premise was to consider a contradictory



situation and so one in which the rules of logic themselves fail. Scotus is of a different mind. In his *Ordinatio* he writes, "The question is posed so that it may be inquired what is the primary thing distinguishing the Son from the Holy Spirit – whether it is filiation or only active spiration – because if it is filiation, then however much active spiration is set aside (*circumscripta*) *per impossibile*, the ground for the distinction will still remain" (*Ordinatio* 1, d. 11, q. 2, n. 28). For a pathbreaking and much more thorough discussion of Scotus's account of natural and essential consequence than is possible here, see Martin 1999, ch. 7.

- 32 *In Metaph.* 9, q. 1, n. 3. I thank Rega Wood for showing me the corrected version of this text before its publication.
- 33 Some of that case is made in Langston 1986.
- 34 Scotus writes, "Secundo, quia ideae repraesentantes terminos simplices non repraesentant complexiones nisi quatenus termini includunt veritatem complexionum, sed termini contingentium non includunt veritatem complexionis factae de illis, quia tunc esset illa complexio necessaria." *Lectura* 1, d. 39, a. 1, q. 1, in corp.