AQUINAS ON GOD AND MODAL TRUTH

It's possible that there be two-headed cats. Necessarily, if a cat has two heads, it has more than one head. I need not have chosen that particular example. These are modal truths, which tell us what can, must or might not have been so. One question metaphysics asks is just what makes modal truths true. For some sorts of modality, medieval theist metaphysicians mostly answered, "facts about God." I now explain and evaluate Aquinas' version of this answer.

I. POSSIBILITY AND GOD'S POWER

Aquinas writes that

God understands Himself perfectly... to be understood perfectly, a thing's power must be understood perfectly. But the power of a thing cannot be perfectly known unless the things to which that power extends are known. And so because God's power extends to other things... God knows things other than Himself... God sees things other than Himself... in Himself, inasmuch as His essence contains likenesses of things other than Himself.[1]

God knows things which neither are, nor were, nor will be as possible to His power.

Therefore He knows them... as existing in the divine power.[2]

all creatures, before they existed... were possible beings... only through the divine power, inasmuch as God was able to produce them in being.[3]

God perfectly understands His power. Powers are powers to do a range of actions. If one perfectly understands a power, one perfectly understands all that it is a power to do. One also has a perfect grasp of each individual action in its range. Anything less would not constitute *perfectly* understanding the power; a fuller understanding would be possible. So in perfectly grasping His power, God perfectly understands every action it is in His power to do. If an action would produce a zebra, one perfectly understands that action only if one perfectly understands what a zebra is. So in perfectly understanding His power, God perfectly understands the nature of whatever it is in Him to produce. This suggests a minimal sense in which the content of God's power includes whatever it is in Him to produce: namely, that God's power is such that a perfect understanding of it yields perfect understanding of all its possible products. It's clear why this is so. It is so because the power just does have these possible products. But we want to

know what makes this so—what having all these possible products consists in, and why these rather than others. The minimal sense does not tell us. The second quoted text can seem to try: God can know all this by understanding His power because His possible effects "exist in God's power." So I look into this shortly.

According to Thomas, God can bring about every state of affairs such that His bringing it about entails no contradiction.[4] So every such state of affairs "exists in God's power." God knows these states of affairs "as possible to His power": He knows them as states He *can* produce, and whatever He can produce *ipso facto* is possible. So Thomas' God knows of these possible states of affairs that they *are* possible. But talk of God's power is really shorthand, for Thomas. In Thomas' eyes, God has no attribute of power distinct from deity.[5] Rather, every divine intrinsic attribute is in reality identical with deity, and in particular "God's power... is the divine essence itself."[6] Thus Aquinas' thought is really this. Deity is such intrinsically that we can properly speak as if God had an attribute of power.[7] In perfectly understanding His nature, God perfectly understands what we call the range of His power. So God understands of every state of affairs He can produce that it is possible, because its being possible is somehow written into His nature, deity, which thus "contains likenesses of things other than" God. Thus for Thomas, God can read modal truth off His nature. So Thomas' claim in these texts is that for all states of affairs P that God could bring about without contradiction and for some particular sort of possibility, that possibly P is part of the content of deity: to exist "in God's power" is to exist in deity.

II. POWER, GOODNESS AND REASONS

> In one place, Thomas varies the account a bit. He writes in *De Veritate* that one can say that God intuits... things which neither will be, nor are, nor were... in His power... Nevertheless it is more apt to say that He sees them in His goodness, which is the end of all things He makes, according as he sees there to be many other ways to communicate His goodness.[8]

Given divine simplicity, God's power = God's goodness. But Thomas calls it "more apt" to *speak* of God's goodness because he thinks that an account in terms of God's goodness can explain *to us* why His power "contains" the possibilities it does. That is, he thinks this a more satisfying story than the mere reference to power provides, though the explanation does not call on or correspond to any real relations between distinct entities in God (and so one may wonder in what sense the explanation is a *true* story, or why it *should* satisfy us). The story goes this way. As supremely wise, God acts only for good reason. If God could not have good reason to do an act A, He would not do A, no matter what. So A would not be a possible divine action, not part of the range of God's power, and a state of affairs S which could obtain only if God did A would not be among the possible effects of divine acts. Conversely, if God could have a good reason to do A, this

places A among God's options, i.e. within His power's range, and so places S among the states of affairs God might effect. So an appeal to divine reasons promises to dig deeper into the roots of possibility than a mere appeal to God's power: what reasons God can have explains what He might do, and so what power He has. Reasons can have an end-means structure: one does A because one wants to bring it about that P, and doing A is a means to bringing it about that P. In God's case, Thomas holds, the only end for which God can act is His own goodness.[9] Thus divine end-means reasons can differ only in the means involved. This raises the question of what a means to God's goodness can be, given that God is already perfectly good.[10] I first offer an account of one thing involved in the claim that God's only end is His goodness, then address this and show how it bears on God's relation to modal truth.

For Thomas, any will's object is the good: anyone can will a state of affairs only insofar as he/she takes its obtaining as in some way good.[11] That is, for Thomas any reason to act must present a state of affairs the agent might attempt to bring about as in some way good, and its motivating force will stem from the agent's desire for that state of affairs *qua* good. What attract are the goodness of that state of affairs and that in virtue of which the state of affairs is good. In that sense, any agent acting to bring about a state of affairs S acts out of desire for the goodness of S. For Thomas, God is by nature goodness itself, the paradigm of goodness.[12] All goodness consists in likeness to (participation in) the paradigm of goodness. So on Thomas' terms, any reason to act must have its force from an agent's attraction to a state of affairs' likeness to (something about) God, which gives it a goodness like the goodness of (something about) God[13]—though one need not think of it in these terms, as it is not part of being attracted to the Fness of A that one be aware of what the Fness of A consists in. So God too can only act out of attraction to states of affairs because they are like (something about) Him. He cannot do other than be drawn toward states of affairs because they resemble, reflect or manifest goodness that is in fact His. He can act only out of love for such goodness. The only reasons God can act on will appeal to His love of goodness that is in fact His.

What one loves, one may well want more of. But God cannot increase His own intrinsic goodness. It is already perfect, maximal. There can be more of divine goodness only if there can be other things that have it, or approximate to it: the only means by which God increase His goodness is to create things that resemble Him in good-making ways. Thus Thomas suggests that God wills there to be other things so that His goodness can be increased in the only way open to it, that of having likenesses.[14] On Thomas' terms, the only acts *ad extra* God can

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have reason to do are attempts to communicate His goodness, attempts to bring it about that more things are in various ways like God (and so in various ways good) or that given things are more like God. Suppose that there are good things about stars. If there are, then if stars existed, there would be ways they would be like God, and their goodness would be like God's goodness. Then for this reason and this reason only, God might create stars. That stars exist is a possible effect of a divine act (and so "in God's power") and so is possible, *because* this state of affairs has the right relation to God's goodness: what makes it possible is its goodness. So for Thomas, possible states of affairs exist in deity because of the relation between their goodness and God's. If stars would in some way reflect God's goodness, for this reason God is such as to bring stars to be, and so stars are possible. The pattern of explanation is fairly familiar. Because God has a certain nature, He can have certain reasons for action, or in many cases does have them.[15] Because He can or does, certain intentions and so certain actions are possible for Him.[16] Because bringing S about is possible for Him, possibly someone brings S about. Because possibly someone brings S about, S is possible.

But note that modality enters the picture at the point of saying that certain reasons or actions are possible for God. What makes it the case that *possibly* God has a certain reason or does a certain act? We can't appeal to some entity outside the being of God, for God possibly has His reasons to act and possibly acts from all eternity, "before" there are any.[17] Nor can we appeal to some disposition or possibility within God, else God is not purely actual. Is it that God actually has a particular nature? It could make His having a certain reason possible if the possibility supervened on this. But the modal aspect of this possibility couldn't be included within God's being, *per* the pure-actuality doctrine, and couldn't rest on something outside Him from all eternity. So supervenience doesn't help. Thus God's being divine makes this possible only if it is itself somehow the truthmaker for the claim that it is possible. That God is divine is a nonmodal fact. If so, then if God's being divine is what makes His reasons and actions possible, nothing irreducibly modal makes these possible at all. If nothing modal is involved in God's being divine, and God's being divine makes it true that possibly He has certain reasons, whence the modal note in that claim? It's not clear how modality gets into the picture here. This issue recurs below.

Further, we ought to be clear what's being explained. Thomas attempts to tell us why stars are possible. This is so, we read, because God and stars would be in some ways alike, and God's goodness and that which stars would have would be alike. But why is the nature of stars there to achieve the status of nature of a possible creature, and where is "there," anyway? Either the nature is primitively encoded in deity somehow, and then "becomes" possible once God notes its goodness, or God generates a thought of stars by a "natural" intellectual act and then this ensues. (But again, given divine simplicity, while these stories differ, the underlying reality they describe does not.[18]) If the latter, then again in a sense star-nature

is primitively encoded in deity—only in the imperative mood, as an impulse or directive to think up stars. Stars' goodness supervenes on their intrinsic non-value character. So it cannot account for there being that character for it to supervene on. Thomas doesn't give us an account of how the attribute of being a star gets to be in deity. He gives instead an account of why an attribute primitively there has the modal property of being possibly exemplified.

III. CLARIFICATIONS

My exposition spoke of states of affairs. Thomas did not have the term. But he writes that

> God... can do all things that are possible absolutely... something is called possible or impossible absolutely from the relation of the terms: possible... because the predicate is not repugnant to the subject, as that Socrates sits; absolutely impossible because the predicate is repugnant to the subject, as for a human to be a donkey.[19] Whatever things... do not imply a contradiction are contained among those possible things with respect to which God is called omnipotent... God is called omnipotent because He can do all absolutely possible things.[20]

The "things" God "can do" have predicates and subjects. They have implications, which do not include contradictions. Thus at least some objects of God's power are propositional in structure.[21] States of affairs are so. So perhaps the "things" in question just are states of affairs. If so, take my talk of them at face value. Perhaps Thomas means to describe what God can do in terms of making propositions true. If so, talk of actualizing states of affairs is just shorthand for this. Or perhaps the propositionally-structured entities Thomas is committed to are just sentences we might use to describe God's doings. If so, talk of propositions and states of affairs alike is a *façon de parler*. And if so, parse me accordingly. No matter what the bearers of possibility turn out finally to be, for Thomas all that is possible "exists in God's power." If they are sentences, that (the truth of) many of them exists (i.e. just is) in God's power doesn't entail any real complexity within God's power. But because of Thomas' commitment to divine simplicity, if they are propositions or states of affairs, the same is true: there being many things "in" God's power does not entail any real complexity in it.

Possible in what sense, you may ask? Thomas writes that if a proposition does not imply a contradiction (i.e. is consistent), it is absolutely possible. He adds that "things which imply a contradiction... cannot have the nature of the possible."[22] Thus for Thomas propositions have this sort of possibility if they do not imply a contradiction.[23] If they imply contradictions, they are in no sense possi-

ble. Thomas speaks, in short, *roughly* of what we call narrow logical modality. The match is only rough because Thomas suggests that what implies a contradiction varies with time: for Socrates not to be sitting at t_2 implied no contradiction at the earlier t_1, but if Socrates sits at t_2, "Socrates did not sit at t_2" implies a contradiction ever after.[24] We would say instead that "Socrates did not sit at t_2" never implies a contradiction on its own, and the conjunction "Socrates sat at t_2 and Socrates did not sit at t_2" always implies a contradiction. More generally, we think of narrow logical modality as time-invariant. But we could easily take Thomas' "implies a contradiction" always to mean "implies a contradiction in conjunction with something true at that time"—minimally, of course, conjunction with itself. Then what did not imply a contradiction at t_1 was the conjunction of "Socrates does not sit at t_2" and the rest of what was true at t_1 (or perhaps its conjunction with itself). This would let us take these modalities as time-invariant, and close the gap between Thomas' modal concept and narrow logical modality.

Let's ask, further, what it is to imply a contradiction. Thomas does not mean this to be a matter of conventionally defined relations between terms and sentences: if he did, he'd be making the extension of God's power depend on the limits of our languages. Again, because Thomas' God can render true any proposition that does not imply a contradiction, the fact that a proposition does not imply one bears on what really might occur; it is not *merely* a fact about terms or concepts. So Thomas means to deal in a non-language-dependent sort of modality. Thomas takes possibility of this sort as the "outermost" sort of objective possibility in his scheme of things, i.e. such that whatever is in any sense possible (at a time) is possible (at that time) in this sense, but not *vice-versa*. This is why he holds that the inconsistent "cannot have the nature of the possible" *simpliciter*, not just that it cannot have the nature of one sort of possibility. So I am going to refer to it henceforth as outermost possibility, and henceforth my modal terms express outermost modality unless I say otherwise. One can define in terms of outermost possibility the strongest sort of necessity: what is true in all outermost-possible worlds (at a time) is true in all possible worlds (at that time), period.

Of course, Thomas does not have a theory of possible worlds in anything like the current sense. But his account expands to one. Thomas has it that every consistent state of affairs "exists in God's power." Some consistent states of affairs are maximal. A state of affairs P is maximal iff (a) for any Q, that P obtains implies that Q or implies that –Q, and so (b) for any Q, if that P obtains does not imply Q, (P obtains • Q) is inconsistent. Maximal consistent states of affairs are just what some actualists call possible worlds.[25] Given our notion of a possible world, Thomas would of course mean to say that God's power includes being able to actualize every possible world.[26] So his theory would come out saying that God's power has the whole realm of possible worlds written into it. Given all possible worlds (and that they *are* all), all necessary truths are determined: what is true in all possible worlds is necessary. So for Thomas as expanded, the contents

of deity make necessary what is outermost-necessary. We get the same result if we put this in terms closer to Thomas' actual way of thinking. For Thomas, before God makes some dogs, every possible dog exists in God's power, and only there. Every possible dog is a mammal. This makes it the case that necessarily, dogs are mammals. So before God makes dogs, the contents of deity alone make this out-ermost-necessary. Or: it is not in God's power to bring it about that some dog is not a mammal. So every possible dog is a mammal, and the rest goes as before. If the contents of deity make a proposition necessary, they suffice for its being true.

Thus for Thomas, deity contains all modal facts.[27] Putting it another way, for Thomas, one fact makes all modal truths true. We might call it the fact that deity exists, or that God has deity, or that deity is deity, or that God is deity, or that God exists: on Thomas' doctrine of divine simplicity, these are the same fact. Strictly, though, we can't even call it a fact, if facts are supposed to have internal structures isomorphic with propositions. For whatever has internal structure is not internally simple, and the God identical with deity is simple. Rather, for Thomas, there is a single simple truthmaker for all modal truths—the notion of a truthmaker does not imply internal structure.

Platonist modal ontologies base modal truth on the existence of abstract enti-ties, and also hold that the right sort of epistemic contact with these would yield modal knowledge. Thomas' modal metaphysic trims its abstract ontology down to the single entity *deity*, then identifies that with God Himself.[28] Thomas himself says that his views "save to some extent" the opinion of the Platonists. So perhaps we could class Thomas' view as an unusual form of modal Platonism.

IV. AN EXTENSION

Thomas' view is that God reads all modal truth about creatures off His nature. I now submit that Thomas' God reads off His nature still more modal truth: this is also, I suggest, how He knows of merely possible divine intrinsic states that they are possible. Thomas' God cannot intrinsically have a body.[29] That would mean having intrinsically a part or aspect with passive potencies. Thomas' God's is purely actual.[30] This rules out intrinsic passive potencies.[31] Further, Thomas' God is *necessarily* purely actual.[32] So He cannot have a body intrinsical-ly. So for Thomas, any merely possible divine intrinsic state is mental. (Whether or not our mental states are purely intrinsic or Thomas thought they are, at least many of God's mental states must be purely intrinsic. For many of them have their content logically before there is anything outside God to specify them extrinsically.) If divine mental states are among the things which "neither are, nor were, nor will be," we might expect Thomas' God to know them to be possible by

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grasping His power. For surely what mental states God can be in is a function of what mental states it is (in some sense) in His power to be in. But though this is a plausible extension of the above, it isn't strictly what Thomas means to say there, and so I argue it more carefully.

Thomas' God knows purely of Himself, wills purely about Himself and loves in Himself the same things in every possible world. For He knows, wills and loves these things by nature, and in every possible world, He has the same nature. So such states are not *merely* possible. Any merely possible divine mental state must involve creatures. For Thomas, God's mental states include volitions, virtues, cognitive states, and things like love and joy which in us are affects. Every possible use of divine power includes a divine volition. So by grasping the possible uses of His power vis-à-vis creatures, God grasps all His possible volitions about creatures—and does so by comprehending His nature. Every divine moral virtue is maximal in every possible world: Thomas' God is necessarily morally perfect.[33] So there are no merely possible states of divine virtue. God is actually in His only possible virtue-states. As to God's cognitive states, for Thomas, necessarily, whatever is not contained in God (and so in His nature, given divine simplicity) is a creature.[34] So for Thomas, necessarily, every divine cognitive state whose content goes beyond God alone has only facts about creatures as its further content. And necessarily, every fact about creatures has correlated with it a state of divine will, be it one of creation, conservation, providential causation or mere permission: there can be nothing such that it happens although God does not so much as permit it. So by knowing what it is in Him to will about creatures, God equally knows what it is in Him to know about creatures: His possible states of knowledge are "in His power" in the same minimal sense possible creatures are. They are "in His power" in a stronger sense if His decisions and their execution determine what God knows about creatures in any possible world, as Thomas' account of the relation between divine and created agency suggests.[35] Further, given divine simplicity, every possible state of divine will—every possible divine volitional component of a divine action—is identical with the correlated divine cognitive state: for Thomas' God, to will that P is to know that P.[36] If so, then by perfectly knowing what His possible states of will are, God equally knows what His possible cognitive states are—and He would not perfectly comprehend His possible states of will if He did not know of them that they are also His possible cognitive states.

As to such affects as joy, apart from Himself, God has only creatures about whom to feel joy, and so by knowing what He might bring about in the created realm, He knows what He might feel joy about, and (one presumes) how much joy He might feel. Since the only variability in His joy comes entirely from factors over which He has complete control, there is also a stronger sense in which His possible states of joy are "in His power." The like applies to His possible states of love. Thomas holds that God's love for all things consists in His willing

them good.[37] By His antecedent will, He wills that they have the greatest good possible for them.[38] In every possible world, then, God wills every possible creature its greatest possible good: as deity is intrinsically the same in all possible worlds, there are the same possible creatures in every possible world, and so there is just one possible divine volitional state here. In every possible world, God actually makes a set of creatures, and His willing them good in a second sense is His making His contribution as Creator and sustainer to all good they ever receive: so God's possible states of volition about creatures *are* His possible states of love for them. So Thomas' God knows not just of all mere possibilities for creatures but of all mere possibilities for Himself by grasping His nature. But of course, whatever God's creature-involving mental states actually are, logically prior to being actual they were merely possible mental states. So Thomas' God knows the possibility of *all* possible divine creature-involving mental states by grasping His own nature.

So far, we have it that God knows every possible state of affairs outside Himself to be possible by grasping His nature, and in the same way knows to be possible every merely possible divine inner state and every possible divine mental state involving creatures. This leaves only actual states of affairs entirely within God and not involving creatures to consider: does God know *these* to be possible by grasping His nature? God knows that He has His nature and what His nature is by His grasp of His nature. Further, for Thomas, in God, existence = deity.[39] So God's grasp of His deity is equally a grasp of His existence. Presumably God knows that the deity He grasps is also His existence. Were God not to, His grasp of His deity would be imperfect. Again, God = deity.[40] So any other actual intrinsic state of God is a state of deity, and grasped in grasping deity. I now suggest that Thomas is *de facto* committed to the claim that God knows that all these things are possible by knowing that they are actually so.

We soon see that for Thomas, the truthmaker for all truths about what is possible for creatures alone is just that God's nature is as it is, and by grasping His nature, God knows all modal truth this truthmakes. So Thomas holds that by grasping the content of a modal proposition's truthmaker, God grasps the content of all the truths it makes true. I see no reason this principle would be restricted to modal propositions entirely about creatures. But that any state of affairs is actual is a truthmaker for the claim that it is possible. Its being part of the possible world that is actual makes it part of some possible world: nothing else is required. More generally, that P is a truthmaker for any claim that P relevantly implies. But that P is actual relevantly implies that P is possible. So that God actually exists, has His nature etc. are truthmakers for the claims that He possibly exists, has His nature etc. And so Thomas is committed to the claim that God knows that these things

are possible by knowing that they are so. Of course, it is one thing to be committed to a conclusion given true premises one may not have considered, and another altogether to be committed given only premises one explicitly accepts *and* to be such that once made aware of the commitment, one would accept the conclusion rather than reject a premise that led to it. So while I know of nothing in Thomas that would lead him to reject this conclusion, and it seems wholly consonant with his view of God's knowledge generally, I can't claim to have shown that Thomas even implicitly held this.

V. EXISTING "IN GOD'S POWER"

The central nut to crack in understanding Thomas' position is just *how* one simple entity contains all modal facts, or equivalently what the relation is between the one simple modal truthmaker and the many modal truths. Thomas frequently asserts that all God's possible effects pre-exist in His power.[41] But I know of no place where he says exactly what this means. This suggests to me that he thinks it asserts something uncontroversial, not anything elaborate or ontologically problematic. Thomas writes that

> something is called "able to be created" not by a passive power, but only through the active power of the Creator, who can produce something out of nothing.[42]

Thomas asserts two things here. One is negative. If (say) "possibly there is a Tony Blair" is true from all eternity, whether or not God ever creates one, its truthmaker is not a fact about a merely possible Blair or an abstract individual Blair essence. Such things would be "passive powers" for Creation, items to which God would do something in creating.[43] So Thomas' talk serves to cleanse his ontology of such items.

Thomas' second claim is positive. It is that God's having His power is what makes claims like "possibly there is a Blair" true. The singular here is deliberate. If all of God's powers are identical with one attribute, deity, then for Thomas, there is just one divine power, empowering God to produce all His possible effects. But it's not obvious that this couldn't be so. My having my power makes true many truths of the form "it is in my power to write a book." Such truths note that I have some power, and describe it in terms of an effect. But arguably not every such truth entails the existence of a discrete power to produce that effect and no other. It was in Mark Twain's power to write *Tom Sawyer* and *Huckleberry Finn*. Surely he did not do so by exercising a power to write *Tom Sawyer* and no other book and a power to write *Huckleberry Finn* and no other book. Once we accept that powers do not pair 1:1 with possible effects, though, it's not clear how powers should be individuated. Is it in my power to write a book because I have a discrete power to write a book (as vs. a letter)? to write (as vs. to talk, or move my arm)? to communicate? to move my body? That it's in my power to write a book

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does not settle this. It entails nothing at all about how my powers are individuated. It is to this extent compatible even with the radical claim that I have just one power, which gives me all my possible effects. If I needn't write a book by a power to write a book but not a letter, or a power to write but not to talk, why need I write by a power directed to anything less than the whole of my possible effects? And even if we find some plausible general principles of power-individuation—a tall order—and they suggest that I have more than one power, there might be reasons they don't apply to God.

For Thomas, every divine power is identical with deity. Deity is identical with a simple God.[44] So every divine power is internally simple. It just primitively is what it is and does what it does. Nothing within it makes this so. Above we identified a minimal sense in which effects are in God's power—that by perfectly understanding the power, one perfectly understands the effects. We wanted to know what having all these possible products consists in, and why these rather than others. On Thomas' account there is nothing having all these possible products consists in other than having the one simple divine power: nothing distinct from that power and within it directs it to its effects. And for Thomas so far, at least, there is no answer to why these rather than others. Thomas' is a brutally minimalist metaphysic of divine powers. But it is not obviously indefensible. A partial defense might run this way. Let's suppose I have a discrete power to write a book, and ask why it is a power to do this rather than dance a waltz. Perhaps nothing makes this so. Perhaps powers have no internal structure that explains their having the effects they do, but just primitively are the powers they are and have the effects they do. Every analysis of powers either generates an unsatisfying infinite regress or hits bedrock sooner or later. Suppose you say that a power contains some inner structure or constituent that makes it have its sort of effect, that gives it some analogue of intentionality, directedness to an effect. Why does the structure or constituent do this? Perhaps it just does. Perhaps nothing makes it do so. If not, some further structure or constituent does—and either we get an infinite regress or we eventually hit bedrock. The regress is implausible: even if nothing makes it impossible, it's hard to see why all that complexity should be involved in something as straightforward as my having the power to write a book, and any simpler analysis is automatically preferable, *ceteris paribus*. If we hit bedrock, we say of some structure or constituent that it just primitively does what it does— that nothing *makes* it do this. And this raises the question of why we should not have just rested with saying that the power primitively does what it does—of whether we've really gained anything by positing the inner structure or constituents in question.

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Some would claim that my having the power to write a book does not even entail that I have any real dispositional property. Perhaps where we speak of powers, they say, there are really only what we call their categorical bases, but these categoricals make true such conditionals as "were I to try to write a book (in appropriate circumstances, etc.), I would succeed," and the truth of these conditionals stands behind such truths as that it is in my power to write a book. If this is so, the truthmaker of "I have the power to write a book" is my having some categorical attribute. Even so, they say, if in addition I am not necessarily blocked from trying to produce this effect, or from succeeding if I try, it follows that the effect can be produced, and so that it can be. Thomas, I think, belongs in this camp. But here I will want to suggest that his view is open to question.

Power-facts about an omnipotent being entail facts about outermost possibility. If God is omnipotent and has the power to bring it about that P, it is not the case that He is necessarily blocked from trying to do so, or from succeeding if He tries, and so it is outermost-possible that P. Moreover, for Thomas, power-facts about God are the *basis* of outermost-possibility facts about creatures. It's because God might make stars that stars are possible. Now if we took such possibility-facts as external to the power-facts that are their basis, we'd have to connect them by entailment or supervenience. That P entails Q just is its being the case that it is not possible that P and –Q. So if *all* outermost-modal truth about creatures rests on the contents of God's power, then what entails what in such cases rests on what it is in God's power to do. If so, we can't in these cases lean on entailment to explain the relation between God's power to bring it about that P and the possibility that P. For if God's power to bring it about that P entails that P is possible, this is its being the case that

1. it is not possible that God have this power and yet P not be possible.

(1) is a truth about (*inter alia*) creatures' possibility. So (1) is true because

2. it is not in God's power to bring it about that God has this power and yet P is not possible.

But what connects (1) and (2)? That is, what does "because" signify here? If we say, "that (2) entails (1)," this is in turn the fact that

3. it is not possible that (2) be true and (1) be false,

which is true because

4. it is not in God's power to bring it about that (2) is true and (1) false.

And then what does *this* because signify? If entailment, we're off on an infinite regress in which only the numbers of the propositions differ from (3) and (4). The regress seems pointless because at every step it is really a fact about God's power that connects something (4)-like to something (3)-like. Entailment isn't explaining anything. Turning to supervenience, that a property G supervenes on a property F just is certain relations between families of properties holding necessarily.[45] If so, we can't lean on supervenience for similar reasons.[46]

So it seems that there are just two ways God's powers can be the basis of possibility on Thomas' account. On one, the connection between God and possibility-facts is something like supervenience but stripped of all modal elements: a brute inexplicable non-causal "because." On this alternative, it would be possible that P because God has His power (i.e. has deity, or exists, given divine simplicity) and there would be nothing to be said to explicate this "because." With no account of what this "because" would mean or why it holds, Thomas would be ill-placed to defend his view against someone who insisted that facts about possibility are simply independent of God. The other alternative would be to claim that facts of outermost possibility are not external to God's power. Rather, Thomas would say, power-facts about God in some way *include* facts about possibility. What is possible does not just follow from or supervene on what God is able to do, but rather is in some way internal to it. This would be very naturally expressed in the words "all God's possible effects exist in His power." So the positive claim of Thomas' thesis that God's effects pre-exist in His power, I suggest, is that outermost-possibility claims, and so all outermost-modal claims, are made true by something internal to God's having His power, and so—since this *has* no internal structure—simply by God's having His power:

5. For all P, the truthmaker for "P is outermost-possible/necessary" is God's having His power.

To get Thomas' overall position, we then add that

6. God's having His power = God's having deity, so

7. for all P, the truthmaker for "P is outermost-possible/necessary" is God's having deity.

Because God has deity, conditionals of the form "were God to try to bring it about that P, He would succeed" are true. So if God's nature does not rule out His trying to bring it about that P, it is in His power to bring it about that P. This is a fact about the content of His power. And it renders it possible that P.

The most basic point to make here is that (5)-(7) do not explain how deity contains all modal facts. They just state more carefully the claim that it does. So they do not in fact answer the question we raised for Thomas. (6) also raises a problem. Power-facts are irreducibly modal: they are about what one can and might do. Modal facts are properly expressed in statements involving modal words. That God has deity doesn't involve or seem to be missing any. Even if it is true necessarily, the simple claim that God has deity, unmodalized, seems to concern what God is, not what He can or might do or be. So it might seem that on (6), either that God has deity is an intrinsically modal fact, or that God has a power is (counter-intuitively) a non-modal fact. Now that deity is intrinsically modal is not

indefensible. Recently some philosophers have on quite general grounds argued a "neutral monist" account of properties, on which they are single entities one can with equal right take as categorical or non-modal or as dispositional/power-involving.[47] So one could invoke such a view here. The neutral monist view is plausible only in cases in which there are intuitively a categorical property and a power or disposition it grounds to unite. So the neutral-monist move would require us to specify such powers in deity's case. It couldn't stand alone. If one can find a power for deity to subvene, one could make the neutral-monist move otiose by saying simply that deity is complex includes rather than subvenes the power. But for Thomas, deity is simple. So if he could find powers for deity to include, he'd have to make the neutral-monist move to explicate the relation between deity and the powers. But there are at least two plausible candidates for included power(s). Deity includes omnipotence. And being omnipotent includes having power. Again, being divine makes it the case that God exists necessarily. This arguably includes a power disposition to exist no matter what. So no matter what sort of necessity is in question, in *one* sense, that God has deity is an intrinsically modal fact.

But neutral monism would require Thomas to call it proper to treat God's having deity as intrinsically involving His having dispositions. If it does, God's having deity involves His having realized and unrealized potentialities. But Thomas insists repeatedly that there being truths about God's power does not imply that He really has any potentialities or abilities.[48] For Thomas, God has no potentialities at all, not even realized potentialities.[49] Thomas also insists that it is true that God has active power *precisely because* He is purely actual, without any abilities strictly so called.[50] These things rather suggest that for Thomas, God's having His power does *not* involve anything intrinsically modal—that for Thomas God's having the power He has consists entirely in facts about what is and is not the case—that God's having His power is a non-modal fact. This makes Thomas a modal reductionist, for whom the truthmaker for all outermost-modal truths is entirely non-modal.

This means that Thomas' view faces at least two problems. One concerns whether something entirely non-dispositional really can make true statements ascribing dispositions, and more generally how a wholly non-modal reality can make true irreducibly modal propositions. When Thomas talks about divine power, what he really has in mind has no modal note at all. While the common-sense thing to say is that God has the power to make a world—"power" having a modal note, that He can and might do it—the stricter Thomist formulation would be that God is such as to do so. But that God is such as to make a world seems to make true only that a world is such as to be made: a truth similarly without modal note. Where does the additional, distinctively modal content involved in the claim that a world *can be* made or *might be* made come from? I won't be able to discuss this here, but I see no plausible answer. Modal reductionists "reduce" the modal

to the non-modal. So they in effect remove modality entirely from reality: for them, modal claims simply represent in a misleading way what are really just facts about what does and does not exist. (Here David Lewis' version of modal reductionism should leap to mind.) Thomas never says that he intends to "reduce" modality, but his flirting with a "statistical" theory of modality also points in this direction.[51] But if there is nothing modal within the divine being, I suggest, the divine being is in fact the wrong sort of thing to make genuinely modal claims true.

VI. THE MANY-ONE PROBLEM

The other problem, which we've already met, concerns how a single simple reality makes possible the many possible entities and worlds, or equivalently how one unstructured, undifferentiated reality makes true all modal truths, however varied their content. Thomas' claim that it somehow does is not obviously false. But if Thomas wants to persuade us here, he owes us an account of how this works. Absent some such account, the position has an air of (what Russell called) theft, not honest toil.

How can we understand the relation between the many modal truths and their single, simple truthmaker, deity? A quick way with the problem runs as follows. On Thomas' view, the logic of outermost modality must include S5. For God exists necessarily, and in every possible world has His nature, which truthmakes all outermost-modal truths. Thus in every possible world there is the same truth-maker making true all the same modal truths. So every modal truth is true in every possible world: and in particular, for all P, ◊P just if ◊P. This holds only in modal logics including S5. Now every necessary truth strictly implies every other. So if entailment is strict implication, every necessary truth entails every other. It's a reasonable thought that whatever makes a proposition P true *ipso facto* makes true whatever P entails. So if deity makes true any necessary truth, on present assumptions, it makes them all true. But entailment is quite likely not strict impli-cation, due to hoary paradoxes. And the reasonable thought is false if entailment is strict implication. That I land on the moon strictly implies every necessary truth. But it does not make them true.

So let's consider another tack on the many-one problem: might some truth express all and only deity's content, or all but not only that? A truth expressing all and only deity's content would have to include or entail all and only the truths deity makes true. It might be a huge conjunction, or perhaps be of the form "deity includes: the huge conjunction," or perhaps be a single proposition not of either form that somehow entails the huge conjunction or the "deity includes" claim. Only one truth of the first two sorts could express all and only what is in deity. So

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if deity's content is of the first two sorts, the many modal truths do not all express all and only deity's content. Propositions can be distinct and have exactly the same entailments, if entailment is strict implication: each of the many necessary truths strictly implies all and only necessary truths. The same holds if entailment is something more like relevant implication. Consider "closed plane figure T has three angles" and "closed plane figure T has three sides." Each relevantly implies the other and everything else that follows from T's being a triangle. So if at least one truth neither conjunctive nor of the "deity includes..." sort entails all that deity makes true, there could be more than one such truth. But clearly such modal truths as that possibly there are humans don't entail all and only deity's contents. So even if many truths entail all/only deity's contents, we can't take outermost-modal truths about creatures as among these.

There are from all eternity many outermost-modal truths. Let's next consider the thought that these might express all but not only deity's content: the huge conjunction plus further content, or that deity includes the huge conjunction plus other content. One problem here is that there is nothing outside God to provide the extra content from all eternity. Some might advert here to Thomas' doctrine of divine ideas, on which the content of each idea is the divine essence as imitable by some creature.[52] But that each divine idea "exists," and the content of each, are among the huge conjunction's conjuncts. Each divine idea is really identical with the simple truthmaker.[53] None provides content from outside it. An added disjunct from within the big conjunction would yield a different proposition true from all eternity: (P • Q) and (P • Q) v P are different propositions. But it's dubious that a disjunction is the content of the sentence "possibly there are humans," which has nothing disjunctive about it. Further, the real question is how any one conjunct of the huge conjunction is related to the simple truthmaker. I brought in the huge conjunction to consider the thought that one truth could express all and only deity's content. I can legitimately decompose it to generate distinct truths expressing this only if I first make sense of the relation between each conjunct and deity. Still, I'll return to divine ideas shortly.

If there are from all eternity many modal truths and only the one simple truthmaker, some of these truths express only part of that truthmaker's content: this is the moral of talk of the big conjunction. If they express parts of its content, its content has parts. But how can there be parts to its content if the truthmaker has no parts? If the content has many constituents, mustn't there be some parallel complexity in what makes the content true? In fact, this isn't a principle Thomas accepts. On his theory of attributes, a kind other than a highest genus has a definition in genus-difference terms, yet genera aren't in reality anything distinct from their specifying differentiae.[54] A human is a rational animal, but animality is just a concept that picks up on likenesses between members of different species: there isn't such an attribute outside the mind. So the distinction between genus and difference in humanity's definition doesn't mirror any distinction within the kind-

nature itself: there is complexity in the content of humanity without any corresponding complexity in the attribute *humanity*. This seems reasonable. So it is not implausible to reject the principle. But doing so gives us no help on *how* deity "contains" all modal facts, or just what the relation is between the many modal truths' contents and deity's.

An easy answer would be that deity contains omnipotence, and omnipotence is a structurally complex attribute of the form __Aw_1 • __Aw_2 • __Aw_3...), where "_A( )" is a predicate whose sense is "__can actualize( )" and "w_1" etc. name possible worlds. That God can actualize w_1 can in an obvious way truthmake the claim that possibly w_1 is actual. This can't be Thomas' view. In his eyes, omnipotence = deity, God = deity[55], and God is in no way structurally complex.[56] So omnipotence is not structurally complex. A variation on the easy answer would be that omnipotence has the form __$A(w_1$ v w_2 v w_3...). This gets the abilities down to one, and so removes the structural complexity, but gives us as our single modal fact that God can actualize the disjunction. It doesn't follow from this that He can actualize any particular disjunct. So this is too weak an account of omnipotence.

A third easy approach goes this way. It is just a brute fact that God has the power to make humans, though nothing within His power makes it so. So the claim that possibly there are humans corresponds to something of the nature of divine power, though there is no distinct entity within God's power to which it corresponds. The claim is true by doing so. If there is no problem in God's power's having many possible effects without having any internal structure that makes this so, there is no problem in many distinct propositions being true by corresponding to one simple power. Again, I have no knockdown argument that things can't be this way, but again, this is too easy. There is the air of theft about this, of work that needs to be done and has not been. We want more of an explanation, and would legitimately prefer a position that could give it to us, *ceteris paribus*.

VII. DIVINE IDEAS

Thomas' doctrine of divine ideas might seem to do so. On this, the content of each idea is the divine essence as imitable by some creature: "inasmuch as God knows His essence as imitable in such a way by such a creature, He knows it as the proper *ratio* and idea of this creature."[57] This suggests a plurality of modal truthmakers (note the "imit*able*") not as real items but as contents understood by God. Aquinas' claim is of the form "insofar as God knows deity as F, He knows deity as G." This identifies two cognitive contents, two contents *qua* which God knows deity: as imitable as humans would imitate it, and as the proper *ratio* or idea of humans. Thomas had already spoken of ideas of creatures as forms—

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natures—of the creatures to be made, pre-existing in the divine mind.[58] So he takes the proper *ratio* of humans to be, simply, human nature. Thomas' claim, then, also identifies the cognitive contents *deity as imitable as humans would imitate it* and *deity as human nature*. For Thomas, human nature is in the divine mind under the guise of deity as imitable a particular way. Again, deity as imit*able* this way includes the modal note that deity is possibly so imitated. So the content God has in mind involves humans' being possible (if we ignore the modal reductionist worry). So perhaps the content of God's "sight" that He is thus-imitable truthmakes the claim that there can be humans. This would alter the sense in which God's nature truthmakes all modal truths: it does so not directly, in its own real being, but as part of many contents God understands. The suggestion that it is God's *power* that truthmakes these truths becomes one that it is by virtue of something about God's power that God is imitable as humans imitate Him. It's hard to see what this could be other than the fact that God can make humans. The thought will then be that no real constituent of God's power makes it a power to make (*inter alia*) humans, but human nature enters the picture at the level of the intentional content of God's mind when God somehow recognizes humans as among the products His power could have, and the content of God's understanding this truthmakes *possibly there are humans*.

So if we can understand how God comes to see how humans would imitate God—and so the relation between human nature and the content of deity—we'll have an account of the relation between the modal proposition *possibly there are humans* and the divine nature, i.e. the single simple modal truthmaker. Perhaps this will show us the honest toil at the heart of Thomas' position. Aquinas pictures what God does to get concepts of creatures as follows:

> understanding God's essence as imitable in the mode of life but not cognition... the divine intellect grasps the proper form of a plant; if as imitable in the mode of cognition but not intellect, the proper form of an animal...[59]

Being divine includes being live and cognizant. So it might seem as if for Aquinas, God gets the concepts of plants and animals by decomposing deity into constituents. Thomas' examples strengthen this impression:

> the intellect can receive disjoined things which are conjoined in reality, when one of them does not fall in the other's nature. And according to this it can consider in three only two, and in rational animal that which is sensible alone... Whence the intellect can receive as the proper concept of many that which contains many, by apprehending some of them without others. For it can take ten as the proper concept of nine by subtracting one... similarly... it can receive in the concept of *human* a proper exemplar of *irrational animal*.[60]

Ten units are a whole.[61] One can partition the whole into two parts, one of nine, one of one. *Human* is a whole. Its parts are a difference, *rational*, and what this difference specifies (which might better be put as *a-rational animal*). In line with

this, we might take it that attributes other than deity are parts of deity, and combinations of these, and that deity contains all other attributes as a whole contains its parts. If so, to get creature-concepts, God just analyzes His nature into parts. This might also suggest a second way to relate the many modal propositions to their single truthmaker. For if deity unites various attributes and God intellectually decomposes them, logically before He does so it is possible that they be decomposed. So it is possible that these attributes be separate, i.e. that life and being cognizant be two different things. Perhaps it follows from this that something can be live and non-cognizant, as plants are. This possibility is given by the mere existence of deity, because God can decompose deity only because it is in itself decomposable. Thus if this account of God's concept-acquisition works, we might also read back from it to the claim that deity makes possible the creatures that are possible.

But Thomas cannot mean that God literally decomposes deity. Deity has a decomposition only if in itself, before God thinks about it, it has parts, actually or potentially. Aquinas expressly denies this. For him, God = deity and God has no parts, actual or potential.[62] If so, deity has no actual or potential parts. What has no parts cannot be decomposed into its parts. Perhaps then Thomas means to picture God as abstracting aspects from the content of deity. But again, the simplicity of God's nature seems to rule against saying that it *has* distinct aspects. The distinct aspects of creatures that are like it in various ways, Thomas insists, are united in God into a single simple perfection.[63] So God does not find in His nature the attribute of life as distinct from cognition, to understand Himself as imitable in one way without the other. So Thomas' account does not tell us how God initially "separates out" life and knowledge as distinct contents of deity, so as to understand Himself as imitable in one respect while not being imitated in another. It so clearly does not tell us this that I doubt that this is what it is intended to do. I suggest that it is instead an attempt to show how God can *understand* the possible-creature-nature content of His own nature, which is just primitively *there*, without relying on concepts other than that of deity.[64] Perhaps what Thomas has in mind is this. As a brute fact, it is in God's power to make a thing with the nature of a plant. God sees this within Himself, and so sees what He can make. God in effect compares a plant's nature to His own and sees that it is like Him in one way and unlike Him in another. So God grasps a plant's various aspects under the description of likeness to Him in one way and unlikeness to Him in another. Thus by His grasp of His own nature, God has the conceptual content needed to grasp the natures of creatures. But it's hard to see that comparison with the divine nature does any real work here. God must first see that plants are live but not cognizant if He is to compare them to Himself and see that they are like Him *qua* living but

not *qua* cognizant. To see this He must *take* them to be live but not cognizant. So He must already have the use of the concepts of being alive and being cognizant. If so, He can't have gotten these concepts by comparison with Himself.

Can cognitive operations on the divine nature generate these concepts? If deity is simple, the operation can't be decomposition or abstraction. Thomas' "finding 9 in 10" and "finding 2 in 3" examples could also suggest that the operation is some sort of conceptual diminishment on deity. Now even diminution might seem to presuppose some real distinction between the attribute *deity* and the degree to which one has it. For this would be the clearest account of how it could be the case that a lesser degree of deity (or any attribute with which deity is identical) was a degree of the same attribute God had in a greater degree. But if in God being alive = being cognizant, and elsewhere these are distinct, it is no worse to say that in God attribute = degree, but elsewhere these are distinct. The deeper trouble is that it's hard to see how God could obtain creature kind-concepts this way: shouldn't the result of diminishing *deity* be less impressive deities? It's not clear how the result could be things with life but not knowledge. If in deity life = knowledge, diminution on deity would seem to yield only things in which less impressive life = less impressive knowledge: perhaps a certain sort of angel. But more basically, the *way* God is alive and rational differs radically from the way creatures are. It's not clear that a difference in degree can generate a difference in kind, or account for the fact, dear to Thomists, that things like life and rationality are not univocal in God and creatures—that "alive," for instance, applies to God only analogically.

VIII. IDEAS WITHOUT SIMPLICITY?

If divine simplicity is what creates the trouble here, we might wonder if one could get creature-concepts from deity by diminishment if we jettisoned simplicity. I now argue that even without simplicity, this story about God's concepts won't do. Suppose *contra* Aquinas that God's nature is not simple, that He has distinct attributes of power, goodness, etc. Suppose that God also has naturally such concepts as less-than, and the ability to use them to "diminish" His perfections in degree conceptually, thus conceiving e.g. of degrees of power less than omnipotence. Then if God naturally is aware of His nature and able to use His innate conceptual endowments, He naturally can form such concepts as "less powerful than Me," "not as good as Me" and so on.[65] This might not work in all cases: is being alive really a degreed property? But beyond this, talk of the difference between God's kind of life and ours as the result of a mental operation of diminution raises questions.

Diminishment has to be along some scale. In what does the scale consist? I see four ways to think of this:

    8. God's ideal life comes with (or God comes up with) a set of imperative directions, "diminish 10%," "diminish 20%" or the like. This gener-

ates the scale, by generating the items ranked along it.

9. The life-scale is purely formal, consisting of God's ideal life and something like a set of numbers with which to pair lower-degree versions of life.

10. The life-scale is contentful, consisting of an ordered set of ever-lower-degree versions of life.

11. God's ideal life comes with gradations built in, as if God starts out with a full tank of life with volume-marks along its side: 3/4-full, half-full, etc. Constructing ideas of items at various points on the scale (lower-degree versions of life) consists in (as it were) mentally emptying the tank to various degrees.

(8) is too thin a model to give the idea of diminution real bite. Unless God's life comes with inner gradations, as on (11), there's nothing to say just what diminishing 10% would take. God would have to decide without guidance what that operation involves, i.e. purely and simply make up what counts as diminishing 10%. But if He makes up the operation, a *fortiori* He makes up the result. It's in no sense given within His nature. And more basically, how would deciding what an operation of diminution involves and deciding what its result is to be differ from simply making up the content of the creature-concept supposedly gotten by diminution? It's hard to see that the idea of diminution really does any work on this alternative.

(9) scarcely differs from (8). Even if the purely formal scale is given along with the divine nature, what determines exactly what is to be paired with each number? If the lower-degree items to be paired are there in the divine nature, with only the pairing still to do, there's no diminution, no real obtaining of anything out of deity: there's just our old friend, deity primitively and without explanation full of the natures of creatures, or (equivalently) making true all the relevant modal truths, and God noticing what their natures are without having gotten the concepts by which to do so by diminution. The natures count as diminishments of deity (to a specific degree) only once the pairing is done—and the pairing is otiose, accounting for neither the natures' content nor God's understanding of it. If the lower-degree items are not there to be paired, the ideas of items at lower degrees on the scale will have to be invented, then paired with numbers along a purely formal scale. This inventing cannot be a matter of diminution along a scale. God has to make creatures up in some other way, and the idea of diminution does no work in explaining how He does it. After all, for it to do work, we'd need to come up with a second scale to explain how God had been able to construct creature-ideas to pair with the first—and so *ad infinitum*.

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As to (10), if a contentful scale is given along with the divine nature, there is no diminishing for God to do to invent natures. The lower-degree sorts of life are all there, along the scale; we have simply a primitive-contents-of-deity theory. Diminution doesn't even help explain how God cognitively grasps the lower-degree items. Their natures are present in deity; God need only record them. Might He record (say) the way the live ones would be alive under such descriptions as "10% diminishment of My life"? Leaving aside the problem of whether univocal degree differences adequately capture analogical kind-differences, we'd again have to ask how it is determined what constitutes a 10% diminishment. Perhaps God simply is naturally equipped with contentful concepts of what this would come to. If so, diminishment doesn't generate His creature-concepts, but it is just a brute fact that this is the form His creature-concepts take. And this isn't a way of getting creature-concepts from deity by diminishment. If God is not naturally equipped with contentful concepts of (say) a 10% diminishment of life, He has to come up with them—and He cannot do so by diminishment unless this works as in (8) or (9). If on the other hand (10)'s contentful scale has to be constructed, it can't be constructed by diminution along a contentful scale. It must instead consist in a pairing of items at lower degrees on the scale with numbers along (9)'s purely formal scale. Again, either the items to be paired are given in deity, in which case there's no work to be done by diminution, or they are not, in which case they're just invented. If they're invented, no work is done by diminution in this unless as in (8) or (9), and it is in inventing them that God comes up with their concepts- no thanks to diminution, save as in (8) or (9).

Turning finally to (11), note that a volume's parts are present in the whole: if one has a full tank of gas, one has two half-tanks. So (11) is really just the claim that the items to be paired with numbers along the formal scale are given in the divine nature, but without even the pairing left for God to do. On (11), then, again, the idea of diminution does no work in accounting for the natures of creatures. It does not explain how the various grades of life are objectively determined- how it's set what it is to be a fish, a fowl, etc. Can it explain the content of God's concepts of the natures primitively present within Him? There is again the question of how it is determined what a 10% diminishment consists in, and we've already seen the problems here.

IX. MATTER AND THE ROLE OF MATHEMATICS

Further, it seems clear that no operation of diminution on deity will generate the idea of matter. Being material is not just a matter of being less powerful or alive than God. Now given certain mathematical knowledge, God might generate something rather like a concept of matter—though even here I see problems. But I see no way to say that God has this mathematical knowledge by abstraction or diminution, and these play little or no role in the construction I now outline.

Suppose that God naturally knows logic and all of mathematics, including geometry, plus what His own nature is (apart from any supposed creature-nature content). Let's explore how close this can get God to concepts of the material world. If God knows geometry, He knows all truths about possible extensions. Perhaps this would yield the concept of an extended thing. But nothing in the concept of extension, just as such, would yield a concept of space, spacetime or time. So this would not yield concepts of spatially or temporally extended things. If God is timeless, as Aquinas thought, He does not have temporality as an aspect of His own being, so as to have given to Him primitively a temporal way of being extended. So if God is timeless, He can't leverage mathematics into any closer approach to the concept of matter. But if God is temporal, things differ. For He then will have, simply by noticing it, the concepts of temporal extension and location. He can also then form the concept of non-temporal extension and location. This won't give Him what's distinctive of space, if this is anything beyond non-temporality. (And it must be, if string theory is able to conceive of dimensions that are neither spatial nor temporal.) But God can at least form the concepts of non-temporal extension and extended thing, and so God can conceive of a non-temporally extended thing. He has the concepts of cause and power as part of what He gets from His own nature, and so given the natural ability to diminish, He can form the concept of an extended thing less powerful than He, a thing with finite causal powers located within discrete boundaries.

Moreover, God can then conceive of an extended thing that at different times occupies different positions in the non-temporal dimension(s) through it extends. So God can conceive of motion. God can then also conceive of extended things moving and being able to cause other such things to change their position, and so of some causal powers material things have. Perhaps the powers associated with mass and charge, impenetrability, solidity and liquidity can all be understood in this way. Let the powers of His conceived extended things include powers to cause phenomenal experiences in other things. (If God's inner life has any sort of phenomenal content—a debatable point, but let's grant it—then He can conceive of related sorts of phenomenal experience, and so of things to cause these.) All this starts to sound a bit like matter, *modo* Locke.[66] But again, none of this gives us matter's distinctively spatial properties. And there are presumably other things than sheer powers within the boundaries of a material thing: the powers supervene on or on the "neutral monist" view are identical with categorical monadic properties. But I see nothing in the content we have so far to generate these. And again, unless God somehow has His initial logical/mathematical knowledge by diminution, diminution plays no role in His generating conceptual content in the way I've set out.

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Nor will diminution generate the idea of any kind of goodness God does not Himself possess, e.g. bravery or chastity. Nor will it generate the idea of knowledge by sense-perception, unless this is simply a matter of having phenomenal qualities caused in us in certain ways. Nor will it yield the idea of any particular kind of material creature. To be a dog is not just to have a particular degree of power, knowledge, etc. in a body of a specific shape. The specific qualities and powers of dogs aren't *just* degrees of unlikeness to God. Even if it were simply a power, solidity would be not just a degree of power, but a specific *kind* of power (say, to resist deformation in certain ways)—and this, I've suggested, is something God might at best draw on mathematics to conceive. But more basically, *dog* is not a complex quality, but a kind-concept; it answers not "how powerful and knowledgeable is it?" but "what is it?"[67] And I do not see how God could generate material-kind-concepts by diminution from deity. Further, being a dog surely has some positive intrinsic specific content: it is not just being an *ir*rational animal, but being something positive of a kind different from donkeys and goats, and perhaps the positive difference consists in more than just a different bodily shape. It's hard to see how any such positive content could be developed out of a series of purely *negating* operations on divine properties. So even without Aquinas' doctrine of divine simplicity, it's hard to see how God could get His ideas of possible creatures out of Himself. We need, then, another approach to the many-one problem.

X. ORIGINAL AND COPY

As we've seen, for Thomas, creatures' natures are like or, better, reflect or represent deity. For Thomas, God's nature is to creatures' as original is to copy.[68] So perhaps for Thomas, God's nature makes creatures natures' possible as originals make copies possible. If so, a proposition *de possibili* will be true if it corresponds to the being possible of a copy of God.

But let's explore this. The existence of an original makes it possible that there be such a thing as a copy of it—*if* there can also be someone to make the copy, styles and media in which to produce it, etc. Elvis' birth alone did not add to the world the possibility of paintings on black velvet limning the King. There had to also be at least the possibility of black velvet, hungry art-school graduates, etc., and the King himself did nothing to secure this. Originals do determine what something must be like to count as a copy, for they are (in a different sense) what something must be like to be a copy. But originals do not determine their copies' medium, style, degree of representation or other precise traits, save perhaps by placing limits on these. (Nothing consisting solely of pure water can be a perfect copy of a sunset, because this medium, by itself, has no color.) Now in the present case, the divine Original is also the Artist waiting to paint. Even so, there remains the question of how the original determines its copies' media, style etc. With ordi-

nary originals, what sorts of copies are possible depends on the nature of the original *and* what styles, media, etc. are possible. Note that these last are *modal* facts. If it takes some modal facts to set the range of an original's possible copies, then talk of original and copy cannot give us an account of how any original generates or "contains" *all* modal facts. Once the possible media are set, we can generate accounts of what sorts of copy are possible and why. But in the case of copies of being itself—Aquinas' God, *esse ipsum*—there is no second factor to bring in: media, styles etc. are themselves copies of being itself. As this is so, for each medium, if we push the original/copy analogy, there must be a further medium—— which is itself a copy, etc. So original/copy can't be the whole story about the relation between deity and possible creatures.

Aquinas has it that each kind of thing's nature is related to God's as imperfect act to perfect, which he frequently glosses by numerical analogies: God's nature is to creatures,' for instance, as 6 is to 1, 2 and 3.[69] So the "copying" is supposed to be creatures' displaying a lesser degree of something God displays perfectly. The degreed item on which Thomas most insists is "*esse*"—being or existence. Thomas writes that

> Any being has any excellence according to its being. A man would have no excellence from his wisdom unless through it he *were* wise, and so with other excellences. So a thing has excellence according to the way it has being. For a thing is said to be more or less excellent according as its being is contracted to a certain special mode of excellence, greater or less. Therefore if something has the whole power of being, it can lack no power of excellence which comes to some thing. But being according to the whole power of being belongs to a thing which is its being, just as if there were a separated white, it could lack nothing of the power of whiteness.[70]
> The divine essence comprehends within itself the excellences of all beings, not as put together, but in the mode of perfection... every form, whether proper or common, according as it posits something, is a perfection. It includes no imperfection save insofar as as it falls short of true being.[71]

For Thomas, God's being is being itself, a being "separated" from any receiving subject as a Platonic Form of whiteness would be—as it were the Platonic Form of being.[72] Every form is a way to be.[73] So every form is a way to copy being itself (imperfectly), i.e. God, and everything, insofar as it has any form, is an imperfect copy of God. Further, since for Thomas God's nature is identical with His being[74], and God's being is being itself, for Thomas everything which has any positive attribute (form) is *ipso facto* a copy of deity.

But the original on which Thomas insists—existence, *esse*—has little con-

tent.[75] Kant said that existence is not a predicate. A more plausible claim of that sort would be that existence is not a characterizing predicate—that when one says that something exists, one has not described it. What seems beyond contention is that if saying that something exists describes it, it appears to give an almost vacuous description. So in calling God *esse* itself, Thomas does not seem to specify a feature any non-vacuous feature of a thing could copy. And so he does not give us an account of what sorts of copy being itself might have, or how this is determined, and the original/copy analogy does not give us an account of modal truth. The claim that any creatures God might make would be copies of God, representing God in some way, licenses using concepts of creatures' attributes to talk of God- which is the context in which Thomas asserts it. It does not let us fill out the claim that deity "contains" modal truth. Of course, there is a different account of *esse* and its copies in the texts I've quoted. The account has it that *esse* comes in degrees, that having any positive attribute consists in having some degree or other of *esse*, that being more excellent, or excellent in more ways, is having a higher degree of esse, that the higher one's degree of esse, the more excellent one is, and so that having unlimited *esse* is having unlimited excellence, absolute perfection. Since all perfection consists in having some degree of *esse*, by being *esse ipsum*, God has within Him the perfection of every kind of being.[76] This makes it true by definition that any positive attribute creatures have is a way of being like God. But all this simply asserts that something that does not appear to be a feature something non-vacuous could copy nonetheless is one. And as long as *esse* does not appear to be such a feature, the assertion must remain counter-intuitive. Further, if what God finds within Himself is simple, maximal *esse*, we have to ask how this "contains" its lesser degrees—and this will throw us back into earlier parts of this discussion.

XI. THE WAY FORWARD?

For Aquinas, the key claim in the ontology of modal truth is that a simple God somehow acts as truthmaker for all outermost-modal truths. I have not found a satisfactory explanation of this claim in Thomas. So it seems to me that his account, as it stands, is at best incomplete. But I am not at all sure it can be completed within Thomas' own framework. His doctrines of divine simplicity and pure actuality seem to keep the account from working. While I cannot go into this now, the same intuitions about divine ultimacy which drive these two doctrines also motivate the project of giving a theist metaphysic of modality. If these intuitions really do yield these doctrines, then, theists who want a theist modal metaphysics should consider basing the metaphysics of modality on something about God that is *outside* His nature. Of course, if there is anything in God outside His nature, either He is not simple in Thomas' sense or b "outside His nature" asserts something other than "not identical with His essence." But all this is a tale for another day.

[1]S. Thomae de Aquino *Summa Theologiae* (Ottawa: Studii Generalis, 1941) (henceforth *ST*) Ia 14, 5, 95b-96a.

[2]S. Thomae Aquinatis *Summa Contra Gentiles* (Turin: Marietti, 1909) (henceforth *SCG*) I, 66, p. 60. See also *QD de Veritate* 2, 8, *ad* 5, in *Sancti Thomae Aquinatis Quaestiones Disputatae* (Turin: Marietti, 1927), v. 3, 52.

[3]*ST* Ia 9, 2, 47a49b5.

[4]*ST* Ia 25, 3; *SCG* II 25. For Thomas, God sustains creatures in their free actions, and sustains the actions themselves insofar as they are beings. In this sense, God brings it about that creatures act freely; even this falls within the range of His power. Whether He brings this about in some stronger sense—that is, whether He is a theological compatibilist—is a difficult matter I can't discuss here.

[5]*DP* 1, 1 *ad* 9 *et* 14.

[6]*ST* Ia 77, 1, 463b.

[7]See *DP* 1, 1c *et ad* 2.

[8]*DV* 2, 8, p. 52.

[9]*SCG* I, 86.

[10]*SCG* I, 38, 41.

[11]*ST* Ia 82, 2 *ad* 1.

[12]*ST* Ia 2, 3; *SCG* I 38. 41.

[13]To Thomas, for any divine intrinsic F, God's Fness = God, and so while A's being F may at one level of analysis make A like God in being F, and involve a likeness between A's Fness and God's, at a deeper level of analysis, the only likeness involved is to God, and to say that A is like God in being F is not to specify anything A and God have in common, but simply to specify one thing *qua* which A is like God.

[14]*SCG* I, 75; *ST* Ia 19, 3.

[15]God's goodness is His by nature. As we'll see, for Thomas, all states of affairs that might bear modal attributes are also written into the divine nature. So for Thomas, in whatever sense these are present in God's nature, there also supervene on them there the goodness, likeness to (something about) God and likeness of their goodness to God's which provide God's reasons to bring them about. Further, God is by nature completely aware of all contents of His nature and power. So it seems that for Thomas, God by nature has at least a great many reasons for action. But there are also reasons to act God does not have till He creates. God always has reason to save me if I sin. But He only has rea-

son to save me (*simpliciter*) once I am created and sin.

[16]We can have reasons to do actions we can't in fact perform: I have reason to end world hunger, but this is not in my power. For our nature limits our powers, and their effectiveness is still further limited by external constraints. Thomas' God faces no external constraints. And His nature does not limit His power: being omnipotent arguably includes being such as to be able to do whatever He chooses to do ("Our God is in heaven. He does whatever pleases Him" (*Ps.* 115:3)). If this is so, it's being necessarily perfectly wise that guarantees that He won't choose to make a contradiction true: which for Thomas would be the unwise choice of attempting to bring about something which simply cannot be brought about (*ST* Ia 25, 3), knowing full well that it can't.

[17]As Thomas' God is atemporal (*ST* Ia 10), "before" here involves conceptual priority only.

[18]So *SCG* I, 45.

[19]*ST* Ia 25, 3, 174a12-20. See also *ST* Ia 46, 1 *ad* 1; *DP* 3, 1 *ad* 2 and 14.

[20]*ST* Ia 25, 3, 174a12-20, 42-5.

[21]Thomas' *Peri Hermeneias* commentary suggests the stronger claim that what he has in mind here just *are* propositions ("enunciations"). For there he notes that there is

a division of enunciations by matter, which (is) according to the predicate's relation to the subject... If a predicate is *per se* repugnant to the subject, as if the subject excludes its *ratio*, the enunciation is said to be in impossible matter... e.g. "a man is a donkey" (S. Thomae Aquinati *In Aristotelis Libros Peri Hermeneias et Posteriurum Analyticorum Expositio, 2d ed.* (Turin: Marietti, 1964), L. 1, l. 13, #166, p. 64.

The ties of terminology and example suggest that Thomas' *ST* discussion has *enuntiabilia* in view too. What is "repugnance"? Beats me. P's being repugnant to S could simply be P's property of being such that "S is P" implies a contradiction, or S' property of being *per se* not P—which would amount to S' having in its definition some property Q such that Q implies not P (*ibid.*, p. 180). Or it could be something else which is supposed to underlie and explain one or the other of these. If the latter, what?

[22]*ST* Ia 25, 3, 174a45-8.

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[23]See also *ST* Ia 46, 1 *ad* 1; *DP* 3, 1 *ad* 2 and 14. Thomas does not reserve the term "absolute necessity" for the sort of necessity interdefinable with this: at *SCG* II, 30, he calls the existence of incorruptible creatures absolutely necessary even though it is not a contradiction for these not to exist. For Thomas "absolute" modality contrasts with conditional, and some things are absolutely impossible which do not involve self-contradiction, because their being impossible is not conditioned on anything outside themselves.

[24]*ST* Ia 25, 4c *et ad* 1.

[25]So e.g. Alvin Plantinga, "Two Concepts of Modality," in James Tomberlin, ed., *Philosophical Perspectives* 1 (Atascadero, Cal.: Ridgeview Publishing Co., 1987), 191-2.

[26]Strongly and not just weakly, in Plantinga's senses.

[27]What's contingent is determined by what's possible and necessary: that P is contingent just if that P is possible but not necessary.

[28]*ST* Ia 3, 3.

[29]In the Incarnation, God the Son has one extrinsically.

[30]*ST* Ia 3, 1.

[31]*SCG* I, 16.

[32]If Thomas' God were only contingently so, He would possibly have an intrinsic potentiality. If He had one and were simple, He would be nothing but a potentiality—i.e. would not exist actually. So were Thomas' God only contingently purely actual, either in some possible world He would not exist or in some possible world He would not be simple: He would exist contingently or He would be possibly non-simple. But for Thomas, whatever exists contingently is caused to exist (*EE* 5). But God is not (*ST* Ia 2, 2). And nothing could be contingently simple (in Thomas' sense). For any Thomist-simple being A is identical with its nature (*ST* Ia 3, 3), and so necessarily identical with it. Any possible non-simple being either would or would not have or contain A's nature. If it did not, it would not be identical with A, since A necessarily has A's nature. If it did, it would contain A as a constituent or exemplify A. Either way it would not be identical with A. One can make an exegetical case for this as well. *SCG* I 16 derives God's pure actuality from His being a necessary being through Himself. The argument for this in I 15 seems to rule out God's being contingently so. It begins from the claim that some things can be and can not-be, and infers that there are other things that lack this feature, and so are necessary.

Thomas then adds that if any are necessary through another, there must also be at least one necessary through itself. Now (I add) if this thing could be and also could not be necessary through itself, this would just set off another round of the argument, until we finally reached a being necessarily necessary through itself. But if God is necessarily necessary *ex se* and being necessary *ex se* entails being purely actual, God is necessarily purely actual. The remaining question is what sort of modalities Thomas uses in the necessity *ex se* argument. I see nothing to rule it out that these are his strongest, outermost modalities.

[33]*ST* Ia 25, 3 *ad* 2.

[34]Were there something outside God He had not made, some being would exist and not owe its being to *esse-ipsum*. The Fourth Way rules this out. Its only contingent premise is that there actually is a gradation among beings, some greater, some less. But this will be true in any possible world in which God co-exists with other things, since nothing non-divine can equal Him.

[35]*SCG* III, 70 and 89.

[36]*SCG* I, 45 and 73.

[37]*ST* Ia 20, 2.

[38]*DV* 23, 2.

[39]*ST* Ia 3, 5.

[40]*ST* Ia 3, 3.

[41]E.g. *ST* Ia 4,2;12, 8; 13, 2; 14, 5. Again, deity = God's attribute of power, and so this amounts to existing in deity. But Thomas prefers not to put it this way: see *In I Sent.* d. 36, q. 1, a. 3.

[42]*ST* Ia 75, 6 *ad* 2, 446a14-7. This active power, again, is just God. So the claim here is really that a simple God is the truthmaker for all claims about what is "able to be created."

[43]Turning the merely possible Blair actual, or causing the Blair essence to bear the exemplification relation to someone.

[44]*ST* Ia 3, 3.

[45]For these, see e.g. Jaegwon Kim, "Concepts of Supervenience," *Philosophy and Phenomenological Research* 45 (1984), 153-76; Daniel Bonevac, "Supervenience and Ontology," *American Philosophical Quarterly* 25 (1988), 37-47.

[46]Further, on standard accounts of supervenience anyway, A-truths supervene on B-truths e.g. iff necessarily, worlds indiscernible in A-truths are indiscernible in B-truths. This does not tell us *why* the A-truths supervene. Supervenience-relations need explanation. They are not ultimate explainers. Thus an appeal to supervenience could not explain the relation between modal facts and divine power-facts.

⁴⁷So e.g. John Heil, *From an Ontological Point of View* (NY: Oxford University Press, 2003).

⁴⁸*SCG* I, 82.

⁴⁹*ST* Ia 3, 1.

⁵⁰*ST* Ia 25, 1; *SCG* II, 7; *DP* 1, 1, where Thomas denies in so many words that we speak of God having power due to anything which is "completed" by operation—i.e. due to any ability.

⁵¹"Statistical" views are plainly reductionist. On Thomas' relation to "statistical" accounts of modality, see Simo Knuuttila, *Modalities in Medieval Philosophy* (NY: Routledge, 1993), 129-35. One text in which Thomas addresses this issue suggests that though there is no potentiality in God, His power may be involved with irreducible modal facts of another sort:

> a power can be open to opposites in two ways— in one way, on its own part; in another, on the part of that to which it is said to be open. On its own part, when it has not yet come to its perfection, through which it is determined to one thing. This redounds to the imperfection of the power, and the power is seen to be in potency in itself... on the part of that to which it is open, a power is... open to opposites when its perfect
> operation depends on neither, but nevertheless either can be.... This does not pertain to a power's imperfection... So it is with God's will, in respect to things other than God. For its end depends on nothing other than God, while it itself is most perfectly united to its end. (*SCG* I, 82, p. 75. Cf. DP 1, 5.)

For Thomas, there is no potentiality in God to make it true that various actions He never performs are in His power, and yet "either" course of action—the one He chooses, and any other which He does not—"can be." Is the foundation of this "can be" realist, or reductionist? Thomas does not say.

⁵²*ST* Ia 15, 2.

⁵³*DV* 3, 2.

⁵⁴See my "Aquinas on Attributes," *Medieval Philosophy and Theology* 11 (2003), 1-41.

⁵⁵*ST* Ia 3, 3 and 40, 1 ad 1; *In VII Meta.*, lect. 5, #1380.

⁵⁶*ST* Ia 3, 7. Even the Trinity does not for Thomas make God structurally complex. For Thomas it is more as if God composes the Persons of the Trinity than as if the Persons of the Trinity compose God—though neither statement is strictly speaking true (see *In I Sent.*, d. 19, q. 4, ad 2, and *ST* Ia 39, 3).

⁵⁷*ST* Ia 15, 2.

⁵⁸*ST* Ia, 15, 1.

⁵⁹*SCG* I, 54, p. 50. Cf. *In I Sent.*, d. 36, q. 2, a. 2.

⁶⁰*Ibid*.

⁶¹Thomas thinks of numbers in mereological terms. See my forthcoming *Aquinas on Metaphysics* (OUP).

⁶²*ST* Ia 3, 7.

⁶³*ST* Ia 4, 2-3.

⁶⁴This would explain why in *ST* Ia, Aquinas first argues that God by looking within Himself knows all about creatures (14, 5-6), and so *inter alia* that content about creatures is there to be known, and only later argues that He has ideas by which to grasp them (15, 1-2).

⁶⁵Which is not to say that He naturally *must* do so. Is it really part of knowing how good He is to know how much less good other things would be? Perhaps the thought would have to be that God's nature assures that He will make every possible use of all of His concepts.

⁶⁶Chris Shields inspired this line of thought.

⁶⁷Suppose (*per improbabile*) that every species of creature has a genus-differentia definition, in good Aristotelian style. Differentiae are qualities. Might a complex quality involving particular degrees of knowledge, goodness etc. serve as differentia for *dog*? I can't rule this out (though one has to wonder whether each possible species of animal really differs in degree of power, knowledge, etc. from every other: couldn't there be a different *sort* of bug exactly like ladybugs in these respects?) But kind-concepts contain a sort of information beyond what their specifying differences do. Perhaps the genus carries this. It is after all just a broader kind. But one couldn't define genus by differentiating quality and further genus *ad infinitum*, else kinds *would* just be infinitely complex qualities, and saying what a thing is would amount to saying how it is or what it is like. So even if differentiae are complex qualities of a sort one could generate by abstraction and diminution from absolute degrees of divine perfections (power, goodness etc.), there would still remain a gap between kind-concepts and the sort of concepts one could generate purely by these operations. Of course, God, by grasping Himself, has access to the kind *God* and whatever superkinds that has. If *substance* is one of these, and other differentiae can be complexes of degrees of power etc., then God could use this

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kind-concept plus abstraction and diminution to generate kind-concepts sufficient for a world of angels or Leibnizian monads. But it is at least possible that we do not live in either sort of world, and so (again) this method can't represent how God gets the whole range of His kind concepts.

[68] This is why Thomas insists not just that creatures' attributes are like God's, but that it cannot also be the case that God's are like creatures', though likeness as such is a symmetrical relation (*ST* Ia 4, 3 *ad* 4; *SCG* I, 29).

[69] *ST* Ia 14, 6.
[70] *SCG* I 28, 29.
[71] *SCG* I 54, 50.
[72] So *SCG* I, 28; *ST* Ia 4, 2.
[73] So e.g. *ST* Ia 14, 6.
[74] *ST* Ia 3, 3.
[75] *Pace* Barry Miller, *The Fullness of Being* (Notre Dame, In.: University of Notre Dame Press, 2002).
[76] *SCG* I, 28; *ST* Ia 4, 2c, 2 *ad* 1, 3c.