

# **Coming to Understanding**

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## Review 6: Trenton Merricks

In *Coming to Understanding*, A. M. Monius seeks to answer certain questions, questions which science cannot possibly answer. By offering answers to these questions, he hopes to provide a positive contribution to extra-scientific inquiry in general, and to traditional metaphysics in particular. These interrelated questions include:

Why is Being exemplified?

What is the structure of Being?

Why is Being intelligible?

What is the purpose, if any, of the exemplification of Being in individual beings?

We can view *Coming to Understanding* as comprising two distinct, but obviously connected, projects. First, Monius argues that other familiar answers to questions of the sort just noted fail. Second, Monius develops and defends his own answer to these questions. My review will be divided into two sections: the first dealing with the first of these projects and the second with the second.

But first a couple of points regarding Monius's opening remarks. Monius says:

[Many] reject the question of why Being is exemplified, i.e., of why things which are contingent, which therefore do not themselves account for their own existence, *happen in fact to exist*. Yet much of our local scientific knowledge addresses precisely that sort of question concerning contingency, albeit directed locally at this or that type of event or object. Why banish the same sort of question concerning contingency when it is asked globally rather than locally? (p. 2)

This passage gives the impression that the only difference between the question Monius will answer and certain questions answered by science is one of *scope*. Science is local; Monius's view is global. But this impression is misleading. For scientific accounts of *why* something exists are not merely local, they are typically *causal*. Monius's account of why things exist are not merely global, they are *purposive*.

Monius’s project, then, differs from the scientific project in more than scope. Monius hopes to explain the purpose—that *for the sake of which*—contingent things exist. Science doesn’t tell us that *for the sake of which* anything exists; it provides, instead, only causal explanations of existence. So the contrast between his own project and the scientific project drawn by Monius here is misleading, and—because it comes at the very start of *Coming to Understanding*—is likely to set the reader up for some confusion later on.

The second point is trivial. Monius says: “The traditional metaphysical name of reality as a whole is Being. Being is exemplified in individual existents or beings” (p. 2). These two claims are in tension with each other. The second claim indicates—as will be Monius’s view in what follows—that ‘Being’ names a property. The first claim indicates that Being includes all there is, including of course particular contingent things. So I think Monius should drop the first claim.

## I. Monius’s Criticisms of Rival Answers

One rival “answer” to Monius’s target questions is that these questions have *no sensible answers at all*. Monius sums up his presentation of this rival reply with:

Many conclude that there is no answer to these questions, just because there is no answer forthcoming from natural science. For they have no idea what an account of Being would look like. (p. 2)

Monius is right that *some* will object to these questions because they aren’t “scientific” or empirical. But that’s not the only reason one might object. For even those who deny that science can (at least in principle) answer every sensible question might think that Monius’s questions are unanswerable.

For some might think that those questions seem too deep or too fundamental to admit of any deeper or informative answer. *Some* questions will always be unanswerable, given the fact that, as Monius rightly insists, there is genuine contingency in the world.<sup>1</sup> Presumably, these questions will be questions about what is absolutely fundamental.

One might argue that the questions of the sort Monius targets are the best candidates for being those like this, for being questions that are absolutely fundamental. It’s not that science fails us here; it’s that everything does. Once we

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<sup>1</sup>Even if, for example, things going some particular way is more fitting or aimed at the Good, we could still ask: Why did things go the more fitting or the more right way? Why—assuming that things going in the “more fitting” way is not a matter of necessity—did things not go in a less fitting way?

see that some question or other must be beyond our ken, these jump out as very likely suspects. Note that this sort of reasoning involves no positivism or anything like it.

There is a second way a non-positivist might object that at least one of Monius's questions is unanswerable. That objection is that the question of the nature of Being is unanswerable because we have no sense at all what an answer to it would even look like. Monius himself notes this objection, as the quoted passage above shows. But, by placing that objection in the context of positivism and related views, Monius obscures its independent force. One need not be a positivist to feel initially baffled by a question about the nature of Being.

I think that Monius should respond to this bafflement-based objection as follows. "I shall propose an account of Being. The account will make sense. The account will do theoretical work. You think you cannot even imagine what an answer to the question 'what is the nature of Being?' would look like. You are wrong. For I'll give you an answer to that question that you can understand. Even if you reject that answer as false, the mere fact that you understand it shows that the question at hand is subject to intelligible answers."

Similarly, to those who say these questions are too deep and fundamental to admit of informative responses, Monius should reply as follows. "Just because you can't think of informative answers yourself doesn't mean that informative answers cannot be thought of. Indeed, I'll offer an answer."

With both these replies, the debate shifts to whether Monius's answers to his target questions are *correct* and away from the charge that those questions make no sense or are somehow too fundamental. By giving what all should see is at least a candidate for being an answer to the question of Being's nature, Monius shows that it is a question that at least, in principle, admits of intelligible answers.

Monius can avoid objections that are beside the point by making it clear that he can respond to *anyone* who charges that the questions he is pursuing make no sense. As it is currently written, that section of his paper could mislead someone into thinking that he has the resources to block only the positivist (or, more broadly, only those who think that natural science can in principle answer every sensible question about what there is).

(Trivial point from this part of the paper: It was a bit disorienting to see the inference from the premise that certain claims are "strictly inexpressible" to the conclusion that those claims could "never have the status of knowledge" (p. 1). For being strictly inexpressible, and so presumably not possibly *believed*, is far worse than not being known. It is odd to start with the more serious objection and then infer from it a far less serious one. It is like arguing: He is to be criticized for being a serial killer and—because of his disregard for the laws regarding murder—

a bad citizen. Once you've got the really serious charge, shifting focus to the far less serious seems unmotivated and is distracting.)

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Monius rightly notes that any satisfactory approach to his target questions must preserve genuine contingency in the world. He then accuses those who endorse the Many Worlds hypothesis of failing to preserve such contingency. Says Monius:

The Many Worlds Hypothesis states that all the possible ways things could be are equally real and are included in a super-ensemble which exhausts reality. Since this ensemble includes all possibilities, the ensemble and all its parts and aspects are necessary... (p. 5)

Monius makes a mistaken inference here. At the very least, his inference ought to be rejected by those who take the Many Worlds hypothesis as a reductive account of modality (possibility and necessity). The version of the Many Worlds hypothesis familiar to contemporary philosophers will be that of David Lewis, developed in the most detail in his *On the Plurality of Worlds* (Oxford: Blackwell, 1986). So let's consider how Lewis would respond to Monius's objection.

Lewis would deny that his hypothesis does away with contingency. For he would deny that the ensemble exists *necessarily*. This is because, according to Lewis, something exists necessarily only if that thing exists in every possible world.<sup>2</sup> The "ensemble" is "too big" to exist in any possible world at all. Obviously enough, since it exists in no worlds at all, it fails to exist in every world. And so it fails to exist necessarily.

Lewis would add that certain events occur in (and certain things exist in) some, but not all, worlds. Given his views on modality, such events (and things) will be possible but not necessary. And if they happen to occur (or exist) in our world, we would rightly say "they occur (or exist) contingently."

We could reject Lewis's analyses of modal properties. We could deny that existence in all possible worlds is required for being necessary, for failing to be contingent. But an objection to the Many Worlds hypothesis along these lines differs from the one Monius raises. He doesn't object that the Many Worlds

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<sup>2</sup>Lewis analyzes a thing's existing in more than one world in terms of its having counterparts in various worlds. This need not concern us.

hypothesis gives a *false* account of contingency. He objects that, according to it, there is no contingency at all.

I recommend that Monius proceed as follows. He should first consider the Many Worlds view along with Lewis's reductive accounts of necessity and possibility. He should then note that, given Lewis's way of looking at things, the ensemble of worlds is neither necessary nor contingent. It is neither of these because, being "too big," it fails to exist in any world at all. So Lewis's view implies that something exists that is neither necessary nor contingent. Monius could object that this is absurd, that it is a conceptual truth that for any *x*, if *x* exists, *x* is either necessary or contingent.<sup>3</sup> And so Monius can object to Lewis's reductive account of modality, and therefore object to anything that includes that account, such as a Many Worlds thesis that includes it.

But imagine someone affirmed the existence of "Many Worlds," yet refused to reduce what is possible to what exists in some worlds and refused to reduce what is necessary with what exists in all. Her view would not be vulnerable to the objection to Lewis just noted. But her view is no threat to Monius's project. By divorcing itself from an account of possibility and necessity, her view becomes simply the thesis that there exist many rich, but spatiotemporally isolated, universes. Such a cosmology, on its own, offers no answers about why any or all of those universes exist in the first place.

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Another "rival answer" to Monius's questions is provided by theism. I think readers of *Coming to Understanding* would profit from having its status as a rival made a bit more explicit. To see why I say this, consider for example the question "What is the Structure of Being?" It isn't *obvious* that theism *per se* provides an answer to that question. So it isn't obvious that Theism's answer to that question is incompatible with Monius's. So it isn't obvious that Monius's account of Being's structure is, all by itself, inconsistent with theism. A reader might wonder "Why does Monius see the need to dispatch with theism (or at least theism's answers to certain questions) before developing his own position in detail?"

Monius can answer the reader's question. He can say that theism implies certain answers to Monius's target questions concerning purpose and intelligibility. And, assuming theism's answers here are the *most* fundamental, there is no room

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<sup>3</sup>Lewis discusses this sort of objection (*On the Plurality of Worlds*, 211). See also Hud Hudson's "A True, Necessary Falsehood" *Australasian Journal of Philosophy* (1999): 89-91 and "Brute Facts," *Australasian Journal of Philosophy* (1997): 77-82.

for Monius's answers to these questions. Once we have no room for Monius's answers to these questions, there is no work left to be done by his answer to the question about the structure of Being.

One might respond that even if Monius's account of the structure of Being has no work to do in terms of explaining purpose and intelligibility, that account might still be true and worth defending. But recall a point made above in response to those who charge that they cannot even imagine what an account of Being's structure would like. Monius's account of the structure of Being is most compelling insofar as it issues in answers to the more intuitive questions, especially the one regarding purpose.

More importantly, as we learn much later in "Coming to Understanding," no sense can be made of his detailed account of the Structure of Being without insisting that it *does* answer the questions about purpose and intelligibility. In this way, the existence of a rival answer—like that provided by theism—to the questions about purpose and so on undermine Monius's account of the Structure of Being.

The argument of the preceding paragraph is, I think, already in implicit in "Coming to Understanding." It should be made explicit. *Coming to Understanding* would be improved by making clear exactly why theism must be ruled out. For, to repeat, it will not be obvious to every reader why Monius must oppose theism. This is especially true with respect to one who is reading *Coming to Understanding* for the first time, and so confronts Monius's discussion of theism prior to being exposed to the account of Being's structure.

Monius needs to oppose theism. But his arguments against theism are problematic. One such argument involves the following dilemma: either it is a necessary truth that God creates some contingent beings or it is not. Either way, Monius reasons, there is a problem for the theist.

Monius glosses the first option here in the following way:

The inevitable question is why the perfect particular existent exists and why it creates the world—the totality of contingent being—as it actually is. If we are told that the perfect particular exists necessarily and necessarily creates the world as it actually is, then there is indeed nothing left to explain. (p. 4)

Monius has here subtly changed the issue. For recall that Monius's central questions have to do with the existence of some particular beings (or others). Monius here shifts away from that question to the question of why actual beings exist and are just as they are.

Monius himself has no answer to *that* question. Rather, he answers only the question of why some beings or others exist, why Being is exemplified at all. We are here comparing competing answers with those of Monius. So it would be illegitimate to discount theism for failing to answer a question adequately that Monius himself does not even address. Unless Monius has some further argument for why theists must answer the question of why God “creates the world as it is actually is [in full detail]” (p. 4), that question should be abandoned.

The question the theist must answer, in the current dialectical context, is why Being is exemplified in contingent particulars. So let’s pose Monius’s dilemma to theism with respect to that question.

Suppose—to consider the first horn of the dilemma—that it *is* necessary that God creates some contingent beings. Then, one might be tempted to conclude, there is no contingency in the world. But this does not follow. The fact that, necessarily, God creates some contingent being or other does not imply that there is any contingent being such that God creates it necessarily. (Compare: it is a necessary truth that God does something or other (let “doing nothing” count as one kind of action). This does not imply that there is any single action such that, necessarily, God does it.)

So suppose one answers Monius’s central questions by relying on the claim that it is a necessary truth that God creates some contingent thing or other, and that each thing’s existence has a purpose grounded in being created by God. This allows that the things themselves really are contingent. (Maybe in one world God makes A, but in another B; what is necessary is not that God create A, just that God create *something*.) And of course it also allows that what they do is contingent. So there is no problem here for the theist with taking the first horn of the dilemma.

Suppose the theist grasps the second horn, insisting that it is *not* necessary that God creates contingent beings. Monius asks: “What then explains the realization of a capacity [specifically, God’s capacity to create contingent beings] that could remain unrealized?” (p. 6). Monius considers—and objects to—some answers to that question. Monius here presupposes that the theist must say that *something* explains this realization.

But Monius thereby presupposes too much. For the theist could sensibly insist that God’s performing one sort of contingent (and thus presumably free) action rather than another is just the sort of thing that has no explanation, at least not other than “God decided to do so.”

One might object that if there is no overarching good to explain why God performs one action (or why God *decides* to perform one action) rather than each of its competitors, then that action is unreasonable and so not fitting for God. But we need to take seriously the idea that some of God’s actions are truly contingent,

thus presumably not determined and indeed free (in the sense defended by libertarians about free will such as, e.g., Chisholm, van Inwagen and R. Kane). Add to this the idea that God is eminently reasonable and would perform an action if there were a good reason to perform it that trumped reasons to perform all competing actions. It then follows that some of God's actions are not themselves wholly explainable in terms of the good that they achieve.

Recall Buridan's ass. The ass must choose between two bales of equally good hay. There is no reason to choose one over the other. Yet, I say, if the ass is free, reasonable, and hungry, it will choose a bale and eat. Its action here will be completely intelligible even though we cannot give a reason why it chose the first bale rather than the second.

Perhaps God's creating is like that. Perhaps the goods obtained by creating contingent beings are equal to—or, much more plausibly, incommensurable with—the goods found in not creating at all. Then it could be that God just creates and there is no further accounting for why, at least not a reason that makes it completely clear that creating was better than not.

Now one might insist that it is obvious that it would better for God to create some contingent beings than to create none. One might insist that it is obvious that it is better to create something or other than to fail to create at all. Suppose this is right. And suppose that God, though free when reason permits, would not then be free to refrain entirely from creating. Still, it doesn't follow that the world in all its detail is necessary (for the reasons noted above in discussing the "first horn" of the dilemma).

Indeed, it seems that even if there is an all-things-considered compelling reason to create something or other, choosing what to create is to choose among equally good—or, more plausibly, incommensurable—options. Thus even if God cannot resist the force of good reasons, we should still say that he, like Buridan's ass, can choose among various options and act.

Monius still sees a problem here. For he thinks that if it is good that there be some contingent beings or other (rather than none), then the theistic hypothesis does no work.

Thus Theism's fundamental explanation embodies the idea that some things happen because they should. Once that is admitted, the appeal to divine intention drops out as no longer fundamental. The sheer appeal to a good to be realized can itself be explanatory...A good...can account for the existence of a process directed at that good. (p. 7)

I object that while the appeal to divine intention may not be "fundamental," the appeal to divine intention is still relevant. The fact that something would be

good—all by itself—does not give us any reason to think it has or will occur. Ought might imply can, but it doesn't imply is! We still would want to know *how* that good was brought into being. Theism has an explanation.

We can see the point here by applying this line of reasoning against Monius's own picture. One could argue as follows:

Thus *Monius's* fundamental explanation embodies the idea that some things happen because they should. Once that is admitted, the appeal to the *structure of Being and the nature of the Categories* drops out as no longer fundamental. The sheer appeal to a good to be realized can itself be explanatory...A good...can account for the existence of a process directed at that good.

This objection applies—I believe—equally well to Monius and to the Theist. Indeed, in both cases it is a bad objection. For, in spite of this objection, both Monius and the Theist have something to add: an account of *how* the good is brought about.

(Along these same lines, note that later on Monius says he has a kind of proof “that the only thing which can properly play the role of God in accounting for contingent existence is...Being itself” (p. 7). This claim reveals that, even by his own lights, Monius sees that God *does play a role* not filled by the appeal to a good to be realized; Being itself, Monius argues, is required to fill it.)

Monius might think this objection does not apply to his own system. The only way he could defend this, and so give his system a leg up on theism with respect to the current issue, is by arguing that the fact that contingent beings should exist is *analyzed in terms of* the structure of Being. He could then add that an analysandum and its analysans are not competing explanations, but the *same explanation*. (If Bob's behavior is explained by his being a bachelor, his being an eligible unmarried male is not a *competing* explanation.)

The weakness of this response is that it forces Monius to insist that *any* interesting sense in which it is good that contingent things exist—any sense interesting enough to explain why God might create contingent things—is a sense analyzed in terms of the structure of Being. This seems implausible. It seems implausible even if we concede that there is *one* very central and important sense in which the goodness of contingent existents is explained by Being's structure and the way in which universals are directed at Being.

Monius has a further criticism of Theism. He claims that God's necessary uniqueness “is inconsistent with supposing that there is any contingency anywhere” (p. 7). Monius then seems to defend this claim with the following argument:

1. It seems conceivable that there are two instances of the kind Necessary and Perfect Particular. (premise)
2. It is possible that there are two such instances (for short: two gods) (from 1).
3. It is actual that there are two gods (from 2, the nature of necessary being, and S5 modal logic).

The first thing to note is that Monius’s argument, even if sound, establishes only that there are two gods. *It does not even purport to establish that there is no contingency anywhere.* Again, nothing in the conclusion that there are two gods even hints at the idea that there is no contingency in the world. So the argument does not do what Monius explicitly advertises it as doing.

(After presenting this argument, Monius makes a comment about his “argument that the uniqueness of God is not consistent with the contingency of the world” (p. 8). Here he seems to jump from the claim that *God is not unique*—the claim his argument explicitly defends—to the claim that *the uniqueness of God rules out contingency*. Again, this seems to be a mistake, at least absent further argument.)

Monius could, of course, just drop all his claims about theism’s ruling out contingency and focus instead on refuting monotheism directly. He could say that he has given us an argument that the theist must accept that there are two gods; and, he could add, that is a problem for theism and so a reason not to be a theist. Thus, he has argued that one rival to his own account—theism—must be rejected.

A few comments about this argument. First, in the current context it is clear why it would be a problem for any theism-like answer to Monius’s central questions if such answers ruled out all contingency. It is not clear, however, why there being two gods is a problem for a non-standard theism-like answer to Monius’s questions. So even if his argument is sound, I don’t see that it shows that theistic-type answers to Monius’s central questions are somehow unacceptable. They must instead—if Monius’s argument is sound—be unorthodox.

But I don’t think Monius’s argument is sound. The first hint of trouble is that, if the argument is sound, it is *sound* and so Monius himself ought to accept its conclusion. But of course he does not. He does not defend the claim that there are two gods. (Or—because this argument can be adapted to every number of gods, not just two—the claim that there are three gods or four gods or....) So Monius himself must say that argument is unsound. The theist, then, should say likewise. And this is reason enough to say that the argument should be abandoned.

Now Monius might reply that although the argument is unsound, the theist ought to endorse it. If that reply were accurate, we'd have a way to respond to the objection I have just raised. In order to block that response, I think we must dig a bit deeper and show where, exactly, the argument goes wrong.

The argument goes wrong in Monius's defense of the possibility of two gods. Actually, he has two distinct, but related, defenses. The first of these claims is that since two (co-existing) gods are conceivable, they are possible. But conceivability is at best a fallible guide to possibility. And Monius himself gives us the proof. Arguing in his way, we could note the conceivability of *exactly* two gods. We could also note the conceivability of *exactly* three gods. But—for reasons Monius's own argument invokes—if conceivability implies possibility, then there are exactly two gods and exactly three.

The moral here can only be that conceivability does not imply genuine possibility. (What else could the moral be? That there are exactly two gods and also exactly three?) Indeed, the moral is even stronger: Conceivability of an exact number of gods does not imply the possibility of that number. In light of this conclusion it seems that conceivability of an exact number of gods does not give us *any* reason to think that there is that number.

Monius himself, I assume, accepts this moral. For Monius himself notes we can conceive of there being exactly two gods (he says this “seems conceivable” p. 7) yet must certainly reject their possibility. Now recall we are interested in the particular flaw in the argument here by way of exploring whether its flaw is one the theist can happily identify as a flaw. So we should ask: Can the theist accept this moral? Can the theist join Monius in rejecting as unsound the argument for two gods, for the reasons just noted?

Yes. Certainly nothing in theism as such commits one to the demonstrably false claim that conceivability, in the sense at issue here, implies genuine possibility. One *caveat*: Perhaps some have defended the ontological argument for theism by arguing that God is possible because he can be conceived of (in the sense at issue here). Monius has here shown that they are hoist with their own petard. So Monius can rightly claim to have shown that one particular way of defending the ontological argument for God's existence fails; but that's very different from claiming that theism itself has a serious problem.

(It doesn't even show that the ontological argument is flawed. Contemporary defenders of that argument don't make the mistake under discussion here. They recognize that God's possibility is a substantive assumption not easily defended by a simplistic claim about conceivability's relation to possibility. For example, the leading contemporary defender of that argument, Alvin Plantinga, says only that it is rational to accept (or reject) the claim of God's possibility (*Nature of Necessity*, 213-221).)

Monius offers a second, closely related, defense of the possibility of exactly two gods. He says:

Notice that what is appealed to here in the supposition is the co-possibility of two Gods. They are co-possible because the full intrinsic description of one does not exclude the full intrinsic description of the other. (p. 8)

Now Monius cannot say that the quoted passage is *true*, else he himself would have to believe that two gods are co-possible and hence—because they would be necessary beings—actually exist. Yet Monius *denies* that they exist. So Monius must say that the comments about intrinsic descriptions do not really entail genuine possibility.

And they don't. Monius's argument, again, shows this. (Because it can be easily adapted to show that such a claim about intrinsic descriptions would imply that exactly two gods exist and exactly three and...) Moreover, other counterexamples abound. Consider the claim that there is an object that is made of gold, is the size of Montana, and exists necessarily. This "intrinsic description" is internally consistent, at least in the same way in which that of our imagined two gods is. Yet if such an object were genuinely possible then, because it would exist necessarily, it would be actual.

Can the theist join us in rejecting such reasoning? Of course. Nothing in theism as such commits one to the principle here refuted. This is not to deny that some theists may have invoked something very much like the woefully misguided "intrinsic description" test of possibility. Leibniz does so notoriously in his defense of the ontological argument (see, e.g., p. 240 of Leibniz's *Philosophical Essays* trans. by Ariew and Garber). But the moral here, again, is not that theism has a problem. It is that the ontological argument cannot be so simplistically defended.

Monius raises another objection. He says that theism has "never really come to grasp with the ontological status of the Categories." He supports this primarily by criticizing the claim that the Categories are fundamental ideas in the mind of God. But even if that criticism is sound, there are other answers.

The most historically venerable—one that is *de fide* for Roman Catholics even today—is that God is *identical with* Being and indeed with all of his properties. This doctrine, the doctrine of "Divine Simplicity," was promulgated in large part precisely to deal with the sort of worries Monius expresses here. Now I personally think Divine Simplicity is untenable (see Plantinga's criticisms of it in *Does God Have a Nature?*). But it deserves at least a mention in this context.

One could also say (as does Plantinga; *Does God Have a Nature?*, 144ff.) that the Categories—and necessary existents in general—are somehow part of God’s nature, are properties that God has essentially. (Just as *being human* is part of my nature.)

Whether God is identical with the Categories or whether they are part of his nature, it seems that we have here a relation of God to the Categories that does not require God to be objectionably prior to them. At the very least, it is only in some very odd sense of ‘prior’ that a thing could be prior to itself or prior to its nature or essence. So even if Monius is right that God cannot be prior to Being, it seems that there are options open to the theist here in characterizing God’s relation to the Categories.

Monius himself must say that Being is not prior to Being, even though Being is exemplified by Being (and so part of its nature) and, moreover, Being is identical with Being.

Overall, I think that Monius’s criticisms of theism are not very successful. Most importantly, they do not put the theist in a worse light than Monius himself with regard to explaining why there are contingent beings. So how ought Monius respond to theism? If I were him, I would take as my starting point the claim that if his account of the nature of Being is true, then theism is false. (I’ve already noted how we can explicitly show that they are incompatible, at least if we take the essence of each to offer fundamental explanations of the purpose of contingent beings.) Monius’s best chance, I believe, is to argue that because his view is so compelling, we should accept it. And therefore reject theism.

(I suppose he could also avail himself of standard arguments involving the problem of evil, especially in its evidential varieties.)

(Trivial point: I’d drop the ‘natural’ on p. 4, 17 lines from the bottom. It isn’t “natural theology” as such—theology based on argument and reason, not relying upon special revelation—that affirms the view of God there under discussion. It’s just plain old traditional theism, whether supported by reason or revelation.)

## **II. Monius’s Defense and Development of his own System**

As a prelude to developing his own system, Monius proposes a number of constraints on any adequate explanation of why there are contingent beings. In light of the criticisms of the preceding section, it should be clear why I think he has failed to establish the following three constraints:

2. The entity with this capacity must be intrinsically unique, i.e., incapable of having duplicates.

This alleged constraint has two problems. First, it does not seem to have been adequately defended; second, it seems itself to presuppose that “intrinsically unique” just means incapable of having duplicates; but we’ve seen that the number of kindmates possible cannot be read off the “intrinsic” properties of members of that kind in any direct way.

3. The entity so appealed to in the explanation of contingent existence must exist necessarily, so that the issue of why *it* happens to exist does not arise.

Monius quite rightly insists that we must preserve contingency in the world. Thus there will always be a residual question of why things went this way rather than that. The issue, then, is where to allow such a question and where to rule it out. There seems no convincing argument here for the claim that it must be ruled out when the existence of the explanation of contingent beings is itself concerned.

5. The explanation must be a purposive explanation, where the purpose is not mediated by the intention of some pre-existing mind.

Even granting the explanation must be purposive, there seems to be room for “mediation”: whether by a mind or by the structure of Being or by something else.

So much for constraints defended in the course of Monius’s attack on rival positions. In addition to these, there is, according to Monius, one more constraint that any satisfactory explanation of contingent existence must heed. Monius defends:

6. The purposive explanation in question must appeal to a Good which is fundamental, supreme, and hence, unimprovable. The world must exist for the sake of this good.

Monius’s argument for 6. relies on the idea that if we say that contingent beings exist for the sake of a good that is not supreme, then we might well wonder why they do not exist for the sake of some *other* good. Monius says “Unless the good in question is supreme, our explanation would not have terminated at the right point” (pp. 10).

(Trivial suggestion about presentation: I think it is inelegant to list all six constraints on an explanation of contingent beings on p. 11. After all, a mere two pages earlier the first five were listed. On p. 11, I would just say something like

“to the five constraints mentioned at the close of the previous section, we may add a sixth...”)

On p. 12, Monius lists three options which he says are “the only initially plausible candidates to be the fundamental and supreme Good.” I wondered how these were selected. Certainly, it is striking that no religious answers—such as God (although perhaps “loving affirmation of the real” could be given a religious reading)—are included. It might improve things a bit to at least note that religious answers, though they will strike some as “initially plausible,” are excluded, perhaps on the basis of Monius’s earlier discussions of theism.

On p. 13, Monius seems to infer that if contingent beings exist *for the sake of* the Good, then it is impossible for the Good to exist without contingent beings. But this does not follow. Suppose that someone plays basketball for the sake of achieving fame and fortune. It could well be that that person could *possibly* achieve fame and fortune some other way, without playing basketball. Thus the mere fact that A occurs for the sake of B does not imply—as Monius assumes—that *necessarily*, if B then A.

Note further that Monius’s defense of 6. presupposes that *there really is* some supreme good. But while an explanation that relied upon a supreme good would be very nice in the way Monius notes, this is by itself no reason to think such an explanation is possible. It could be that there is no supreme good. There are at least two ways this could go.

Suppose, first, that for any good you please, there is a greater, *ad infinitum*. Or suppose, second, that certain great goods are incommensurable, so that it makes no sense to order or rank them. In either case, there would be no supreme good at all, thus no explanation that has the tidy features Monius here praises.

(Note that any account that preserves contingency—and so Monius’s account—will be to some extent untidy. It will leave open *some* question as to why things went this way, even though they could have gone otherwise.)

As with many of the earlier motivations presented for his view, I think Monius here proceeds in the wrong order. Rather than try to give an independent argument for why any satisfactory account must invoke a supreme good, he should, instead, give an account that *does* invoke it. This account, if true, would then show that some questions don’t arise. And their not arising is a theoretical benefit of the view.

Stepping back from examining the constraints individually, I wonder about their overall function. Several are not useful in ruling out rival options. More importantly, I don’t think that Monius needs them for his own account to be interesting. They might be useful in helping us *understand* that account, but not as they are currently presented. They are currently presented as theses he defends that then guide his theory construction. They might be more useful to his

exposition if they were, instead, presented as desiderata for an attractive theory, desiderata that, as we shall see, his theory satisfies.

Thus presented, readers won't expect them to be defended, in a non-question-begging manner, as true; rather, the reader would merely need to see their appeal. Thus defended, they'd not be constraints Monius's account must meet lest it be ruled unacceptable; rather, the meeting of them would be a positive virtue that would speak in favor of endorsing that account.

Here is another virtue of Monius's account that I think he should highlight. Unlike rival answers, Monius's answers to the questions about Being noted at the outset of his paper and of my review are "unified." That is, once we know his answer to the question about the structure or nature of Being, answers to the others follow. This counts as a theoretical virtue of his theory. I think Monius should explicitly note this.

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A first glance at Monius's list of target question will leave many readers somewhat confused. For the first question—What is the structure of Being?—is somewhat odd. At the very least, it isn't as familiar a question—even to those of us who believe in metaphysics and take it seriously—as questions about why contingent beings exist or what their purpose, if any, might be.

So if I were Monius, I'd first highlight that the question about Being's structure makes sense and is somewhat neglected. I'd argue that it makes sense because it has an intelligible answer that has certain theoretical benefits (providing answers to other questions in the neighborhood here). And I'd then argue that it's having those benefits is not only a reason to understand the question and his answer, but to believe that his answer is the true one. (This last remark invokes the "unity" bit noted above.)

Of course, what counts as evidence here is always controversial. But there is no doubt that the virtue of answering related, deep questions ought to count in its favor. This would help support Monius's answer in a more direct way than the "attack all the other options" suggested by the current structure of the paper, attacks that seem to me often to fail.

Of course, defenders of the other options might come along and say: we too have our own theoretical virtues, etc. Monius could then respond, drawing on arguments already in "Coming to Understanding." I think comparisons like these—examining and comparing the rival views in light of their overall cogency and elegance—is more helpful and more likely to succeed than the direct frontal attack on the rivals he tries in the current version of the paper.

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A key feature of Monius's system is that Being exists necessarily. Being does exist. So it is predicated of itself. Monius then argues that whether a universal is predicated of itself is a matter of necessity. Thus if a universal is predicated of itself, it is so predicated necessarily. If it is not so predicated, then this too is a matter of necessity.

Why should we believe this general claim about self-predication holding (or not) of necessity? Monius defends it only by way of presenting two examples, one in which self-predication fails to hold of necessity and the other in which it does hold, again of necessity.

But we should not follow Monius and conclude from these two examples that the general claim is true. First, consider the examples on which Monius relies. The first, Weighing One Gram, not only fails of necessity to be predicated of itself, it fails of necessity to be predicated of *any universal*. The second, being one thing, is not only necessarily predicated of itself, it is necessarily predicated of *every universal* (and indeed of every (single) thing).

So Monius provides an example of a property that of necessity is predicated of all universals (including itself) and an example of a property that of necessity is not predicated of any universals (including, of course, itself). At the very least, it is not *obvious* that *self*-predication or *non-self*-predication, as the case may be, is the most fundamental explanation of necessity here. Indeed, in these examples self-predication and non-self-predication seem irrelevant to explaining the necessity. The necessity is wholly explained by the choice of properties that either are, or are not, exemplified by all universals of necessity.

What is more important, there are ready counterexamples to the general claim here. Consider the universal *being such that contingent particulars exist*. Let's call that universal 'CP' for short. Will CP be predicated of itself? Well, it will if contingent particulars exist, otherwise not. Assuming that it is possible that contingent particulars exist and possible that no contingent particulars exist (obviously these possibilities are not co-possible), we have here a clear counterexample to Monius's general thesis. Other counterexamples would be *Existing in a world with dogs*, *Being grasped by Plato*, and so on.

Perhaps Monius might respond to my alleged counterexamples thus: just because a string of words applies to an object, this does not mean that that string of words expresses a genuine property that the object has.

He might support this objection with the familiar "paradox of the property of non-self exemplification." Surely some properties fail to exemplify themselves. We could note that the property of Weighing One Gram and Being Red have in common their failing to exemplify themselves, their being non-self-exemplifying.

Thus, we might reason (as Monius seems to at certain points, with different examples (p. 23)) that Weighing One Pound and Being Red each instantiate the same universal: Being Non-Self-Exemplifying.

But this cannot be. For suppose for *reductio* that the universal Being Non-Self-Exemplifying exists. Then either it exemplifies itself or it does not. If it does exemplify itself, then it exemplifies Being Non-Self-Exemplifying and so it does not exemplify itself. If it does not exemplify itself, it fails to exemplify Being Non-Self-Exemplifying and so it does exemplify itself. Either result is contradictory. So we must conclude that Being Non-Self-Exemplifying does not exist.

This means that while it is true that Weighing One Pound and Being Red are non-self-exemplifying, that means simply that Weighing One Pound fails to exemplify Weighing One Pound and that Being Red fails to exemplify Being Red. They do not, however, share a universal (at least not one in virtue of which it is true to say of them that they are non-self-exemplifying).

Monius could exploit this point by saying just as ‘being non-self-exemplifying’ is truly predicated of some objects even though there is no such property, so my counterexamples—*being such that contingent particulars exist*, etc.—fail to be examples of genuine properties. Thus, he might conclude, his argument above has not been decisively refuted.

I don’t think that Monius should take this route. His own arguments and examples invoke various properties freely. And while he must agree that—because of the paradox—there is no property of Being Non-Self-Exemplifying, he shouldn’t therefore cast out properties willy-nilly. There is nothing obviously paradoxical about CP or the other counterexamples. They seem no worse off than Monius’s own example of Weighing One Gram. Besides, it is hard to come up with a compelling criterion for deciding which strings of words correspond to which properties. That’s a major philosophical undertaking in itself, one that Monius shouldn’t have to complete to present his own views on Being.

So I think that Monius is best off conceding that his *argument* for Being’s necessary existence founders. Nevertheless—and more importantly—it does seem right to say that if Being is a universal, then it exists necessarily. At the very least, it is clear that if *anything* exists necessarily, then Being does. (Since any necessary existent will have to exemplify Being.) So I think Monius should simply affirm the necessary existence of Being, rather than give the impression that it’s a questionable thesis in need of some clever defense. It is not questionable. At least to those like me who believe in abstract objects and universals, it’s obvious.

(The full-blown nominalist might resist here, but she’s not likely to be moved by much of what Monius has to say anyway. Perhaps the best Monius can

say to her is that the fruits of his system justify belief in the necessary universal Being, and so justify the abandonment of nominalism.)

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I think it is quite plausible to suppose that Being exists necessarily. And those who have any inclination at all to believe in abstracta will agree. Monius adds—but does not defend—a further claim here: Being (and the necessary structure that exhausts it) is the *only* thing that exists necessarily (p. 24).

It is striking that there is no defense of the claim that although there are necessary existents, Being is the only one. Why should we believe this? Even if Monius could prove that Being existed necessarily, why think that other universals—at least *some* other universals—do not? We need an argument here.

There are two ways he might go here, two ways he can supplement the argument of the paper at this point to address the worry I have just raised.

First, Monius could drop the claim that there might have been *only* Being, that Being is the only necessary universal. Instead, allow whatever others there happen to be. Monius might worry that allowing other necessary universals somehow threatens the primacy of Being. Monius might think he *needs* to argue that Being is the only necessary universal.

I don't think that's right. It can still be the case that everything else exists—including those that exist necessarily—only by participating in Being. And everything else he argues about Being's accounting for the existence of contingent beings still stands, even if there are some non-contingent beings other than Being itself.

But there is a second route Monius could take, one that I think he will prefer. Monius can add explicitly here—as he does later in the paper—that the “other” necessary universals are really part of Being's structure, they are really aspects of Being itself. He should here concede that many will insist that there are lots of necessarily existing universals, but that—contrary to what one might initially expect—he'll argue that they are part of Being's structure.

One thing that would have helped at this juncture would have been a clear account of the extent to which putatively independent universals are alleged to really be mere aspects of Being. Conversely, Monius's mention of “contingent universals” (p. 24) made me wonder what he has in mind here. Clearly they cannot be part of the structure of Being. So how do we decide? How do we decide which universals are part of the structure of Being (and so necessary) and which not (and so—given the claim that Being is the only necessary existent—contingent)?

Monius gives some examples of contingent universals a bit later on. He says, just to take one example, that the property of Being made of plastic would not

have existed, had there been no plastic things. But why believe this? Monius himself includes particular being as an aspect of Being itself, and thus necessarily existing. But he doesn't think that any particulars exist necessarily. He thinks that only Being, a universal, exists necessarily. But even if there were no particulars, then there would have been the universal Being a particular being. So why assume that if there were no plastic things, the property of Being made of plastic would have failed to exist? Is there a principled way to judge whether a universal is contingent or particular?

This question is a difficult one. Monius hints at no answer to it, nor can I even begin to formulate one. It would help Monius, I believe, if this question would go away. And this question does go away if we say that *all universals are aspects of Being and thus exist necessarily*. More on this point below, and its effect on the structure of Being.

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Monius begins to limn the structure of Being with:

...we have already discerned two kinds of, or aspects of, Being—what we might call Universal Being and Particular Being. (p. 24)

Monius seems to reason that the fact that some beings are universal, and others particular, indicates that there are various aspects of Being. But it need not. The fact that there are some universals might just mean that some things exemplify both Being and Being a Universal. The mere fact that there are some universals does not indicate—all by itself, without further argument—that Being has an aspect of Universal Being any more than the existence of Dalmatians indicates—all by itself, without further argument—that Being has an aspect of Dalmatian Being.

So Monius cannot simply infer from the existence of universals to Being's having Universality as part of its *structure*. So what should he do? Rather than make this questionable inference, he should instead suggest that it is part of his view that one big structured property—Being—can account for all the kinds of things that there are. And that this allows him an economy of ontology (just one property) that does a great deal of work. And that's a point in favor of his overall view.

Of course, to return to a point made above, this approach speaks against the idea of contingent universals. For if there are contingent universals, they cannot be identical with (or part of) Being; and so the economical view that there is just one

property (structured Being) is false. So, again, it seems to me that he should say that all genuine universals, all real properties, are aspects of Being.

A final reason that I think Monius should eschew contingent universals and say that all universals are necessary has to do with how he answers the question “What is it to be Being?”; he responds by saying “to be a thing that is a universal” (p. 25). Again, this answer seems most fitting if Being is the only Universal, that is, if all universals are really aspects of Being itself.

The opening discussion of Being’s structure raised another question. Why should we think that the first or most fundamental division of Being is into Universality and Particularity? Why should we think that first distinction noted in Monius’s discussion corresponds to the most fundamental division in Being?

Of course, Universality and Particularity seem quite fundamental. So having them make up the first division of Being is not silly or unmotivated or wholly arbitrary. It isn’t like making Being’s first division be, say, Oak Trees and Non-Oak Trees. But there is the worry that there are other distinctions that seem, at least arguably, equally fundamental.

One in particular jumps to mind. Perhaps Being’s first two fundamental aspects are Necessary and Contingent (rather than Universal and Particular). One could, I think, plausibly defend this in the way Monius defends his own first division. One could ask “What is it to be Being?” and answer “To be a thing that is necessary; Necessary Being is the form of Being.” This seems to me just as satisfactory a reply as “to be a thing that is universal.”

(Indeed, this seems a *more satisfactory* reply if Monius maintains his earlier claim that Being (and its structure) is the *only necessary existent*, yet there are *other universals* which are contingent and so neither identical with nor a part of Being. Here we have yet another problem with contingent universals, from Monius’s perspective.)

Monius should avoid the appearance of arbitrarily choosing between Necessary/Contingent and Universal/Particular as Being’s first division. If I were Monius, I’d consider responding to this worry by *identifying the Necessary with the Universal and identifying the Contingent with the Particular*.

Philosophers who believe in necessary particulars like God would resist this identification. But Monius doesn’t believe in necessary particulars. Philosophers who believe in contingent universals would resist it. But, I’ve argued, there are a variety of reasons that Monius should not believe in contingent universals. So it doesn’t seem to me that—given Monius’s other views—there is a compelling reason to resist identifying the Universal with the Necessary.

Monius might object that, even if they are necessarily co-exemplified, *Being Universal* seems to mean something different than does *Being Necessary*. He

might argue that the first, for example, means being repeatable in space, but the second does not.

But there is a strong tradition in contemporary philosophy according to which properties are individuated by their possible instances. This “extensionalism” in property-identification would automatically identify the Necessary and the Universal if, in fact, necessarily all and only universals were necessary existents. (Extensionalism is sometimes—but certainly not of necessity—motivated by the desire to construct properties set-theoretically, identifying a property with the set of all its possible instances; see, e.g., David Lewis, *On the Plurality of Worlds*, 50ff.)

Moreover, there is historical precedent for identifying necessarily co-exemplified properties that seem—at first glance—to be distinct. Most famously, there is the medieval tradition of identifying the Transcendentals: Being, One, True, and Good. It seems fair to say that such an identification is no more obvious or initially intuitive than that of Universal with Necessary.

Monius might well resist this move. After all, it would bring about significant revision in his structure of Being. But if I’m right in my arguments earlier to the effect that Monius is better off if he renounces contingent universals, revision is needed anyway. And if Monius revises his system to identify Universal with Necessary, as I suggest, he will thereby automatically make the revision needed to get rid of contingent universals. So that sort of revision seems to me to be motivated by two independent factors.

(There is a second, less revisionary, reply Monius might make to my challenge about the arbitrariness of choosing universal/particular as more fundamental than necessary/contingent. He could reply that he is providing only one way that the Structure of Being might go, and concede that, in reality, it might be first divided into Necessary and Contingent. But he could note that however exactly this goes, his overall answers to why is Being exemplified in contingent things remains, in their general spirit, the same.)

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I say that Monius should identify the Universal with the Necessary and the Particular with the Contingent. This change in his system *would not undermine any of the Four Axioms* (presented on pp. 41-42). And so the sort of change I suggest, while significant, need not threaten Monius’s overall project of explaining, by way of reference to the nature of the Categories and the Structure of Being, why particular contingent beings exist.

In support of this last claim, let’s consider Monius’s important discussion of how the Contingent must be the differentia of Particular Being (p. 47). One might

think that rejecting this—as we must if we identify the Contingent with the Particular—undermines the whole system. Moreover, Monius claims that it is not a “mere side remark” (p. 48) about Particular Being that it stands in the particular relations he says it does to Contingent Being.

Let me respond to the latter worry first, starting with a look at the passage whence the bit just quoted comes:

It is only because of the contingent instantiation of Being in beings that there is any Particular Being at all. This is not a mere side remark about Particular Being, rather it is so central to the very nature of Particular Being that it is suited to figure in its real definition. (p. 48)

I think that Monius’s remarks here support only the claim that Particular Being must be very closely related to Contingent Being. Nothing here precludes the very “close” relation I am suggesting, that of identity. Again, Monius shows nothing about the nature of Particular being to preclude an even *closer* relation to Contingent Being than the one he suggests; what he seems to forbid is distancing the one from the other.

But more importantly, let’s consider the former worry, the worry about how the identifications I suggest bear on the Structure of Being as a whole. Indeed, let’s focus specifically on Monius’s claim that the Contingent must be the differentia of Particular Being. I say that *if* we have concluded that the Contingent just is the Particular, *then* we should argue that its differentia just is the Material (which in the current structure stands as the differentia of the Contingent).

One more thought on how the Structure of Being should be understood if we identify the Contingent with the Particular and the Universal with the Necessary. The Universal (i.e., Necessary) could have the Formal as its “form” and the Material as its Matter. The Particular (i.e., Contingent) could then have the Telic as its “form” and the Efficient as its “matter.”

I like this because it elevates the four causes so that *every* aspect of Being beyond that of Universal/Particular ends up being an aspect of one of them. Moreover, we could easily preserve the “teleological arc” from the Patterned aspect of Being all the way to the Universal aspect so crucial to Monius’s project simply by identifying the Telic with the Comprehensible and the Efficient with the Spatio-Temporal. This identification seems fairly attractive anyway.

Maybe these suggested changes are too extensive to be palatable to Monius. I certainly wouldn’t say these changes *must* be made. So that’s all I’ll say about the details of further changes in Being’s structure that would follow from the identification of the Contingent with the Particular. Again, I won’t attempt to work out in detail exactly how the revision here would filter down into the structure of

Being as a whole. After all, Monius may not be interested in making such a significant change. And even if he is, he is sure to be better at teasing out its consequences for his system than am I.

And, to return to a point made in a parenthetical remark at the close of the last sub-section, I don't think Monius should put too much emphasis on how *exactly* he spells out the structure of Being. He needs to give us the general idea, of course. For example, he needs to motivate the idea that given his way of thinking, we'll be inclined to proceed in accord with Axioms 2 and 3 (p. 41). But I think it is a philosophical and rhetorical mistake to make it seem that our accepting the Axioms depends on our accepting every detail of the Structure of Being, as Monius presents it.

What is most interesting here, I believe, is the idea that Being has a structure and that, if understood along the general lines Monius suggests, is such that it would give rise to particular beings. What is least compelling, I believe, is the claim that Being has not merely a structure of a general sort consistent with the Axioms, but rather the very detailed structure presented in, for example, Diagram 4.

One final point along these lines. Note that Axiom 2—the Axiom of Dichotomy—commits us to an *infinite* number of divisions. Every category is divided into two Sub-Categories, which are themselves thus divided, and so on, *ad infinitum*. Obviously, it cannot be that our reason for believing in Axiom 2 is that we have laid out in detail an infinitely complex diagram of the structure of Being. That would be impossible. (No matter how big the piece of paper on which we present the diagram! No Matter how small we write!)

So Axiom 2 cannot depend on its plausibility for its reflecting a fully detailed and complete account of the Structure of Being. Rather, it seems to be the other way round: the structure of Being is made plausible by conforming to the Axiom. This shows, I believe, that the Axioms do not depend on the details of how we fill out Being's Structure.

Here is the moral of the preceding paragraphs: Monius can strengthen his case for both the Axioms and his general answer to why contingent beings exist if he explains that they are not held hostage to every little detail of his suggestions regarding how Being is structured.

(I would say that Monius's actual detailed structure is one that is suggested by, or consistent with, the Axioms. It is not clear that it is the only structure that a reasonable person, who believes the Axioms, would be led to endorse, even one who wants to endorse the teleological arc known as *Coming to Understanding*.)

I will now set the suggested revisions to Being's structure aside, and continue on with comments on the system as currently presented in "Coming to Understanding."

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Monius offers a solution to “the puzzle of explanation,” and along the way criticizes the Humean claim that a causal generalization just is a conjunction of singular causal connections. I think his case against the Humean claim would be strengthened if he added something about how an explanatory generalization typically supports *counterfactuals* (subjunctive conditionals with false antecedents), but a conjunction of singular causal connections does not.

(If chain-smoking *causes* cancer, then if (contrary to fact) I were a chain-smoker, I would be more likely to have cancer. If, *as a matter of mere coincidence*, most people with twelve letters in their last name ate soup last night, then there is no reason to think that if (contrary to fact) my last name included twelve letters, I would have been more likely to eat soup last night.)

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Monius looks for the formal and material aspects of the Stable spatio-temporal. He defends his position on those aspects by contrasting two sorts of material objects: those that last over time by “being wholly present” at each time at which they exist and those that last over time by “being merely partly present” at each time at which they exist.

Following contemporary usage, let’s say that things that are thus wholly present “endure”; those that exist at various times by having a proper part at each of those times, but not by existing in their entirety at each such time, do not endure, but rather “perdure.” Monius’s argument of p. 23 presupposes that there can be both endurers and perdurers.

This is, I believe, false. Briefly, here is the argument. If objects perdure, then times other than the present must be equally real, must be as real as the present. Other times must, in a sense, be like other places. Those other times must exist, after all, if an object is to be “spread out” across them, as perduring objects are alleged to be. Time must be, in a certain way, like space. (Other places are as real as “here”; other times must be as real as “now.”)

If objects endure, however, other times cannot be like other places. If they were, then objects would exist at multiple times only by being multiply present, much like a universal. But objects can’t pull that off; only universals can. Moreover, suppose an object were really entirely present at two distinct times and that both of those times exist. Suppose further that that object was spherical at one and not spherical at the other. Then we’d get a contradiction: the object would be both wholly spherical and not wholly spherical. For reasons like this, it looks like the claim that objects endure, added to the claim that past and future times are all

as real as the present, implies that change is contradictory. But change is not contradictory. So if objects endure, other times are not like other places.

Other times are either like other places or they are not. If they are, objects do not endure. If they are not, objects do not perdure. Either way, it is false that some objects endure and some objects perdure.

The argument of the preceding three paragraphs is somewhat controversial.<sup>4</sup> So suppose we set it aside. Nevertheless, it is still true that, to the best of my knowledge, no philosophers (other than Monius) accept that there are both enduring and perduring objects. (Some philosophers believe that *events* perdure while objects endure. Monius suggests, however, that simples endure but animal bodies perdure; these are both objects.)

So I think Monius should drop the claim that some objects endure and some objects perdure. He should drop this because of the argument above. And he should drop this because it will (for good reason) seem puzzling to virtually all contemporary philosophers.

Another distinction is at work in Monius's discussion of the Stable spatio-temporal, a distinction that is perhaps conflated with the enduring/perduring distinction. This is the distinction between objects that can *possibly change parts* (like animal bodies), and those that cannot (like simples). This distinction is unproblematic. And so I think Monius should simply drop the parts of his discussion that contrast objects that have all their parts at a time with those that exist at a time only by being partly present. He should, instead, just explain the Continuing/Aggregative distinction as one grounded in a difference with respect to whether change of parts is possible.

Some might be tempted to object to my differentiating between the Not-possibly-part-changing/Possibly-part-changing distinction and the Enduring/Perduring distinction. Such an objection would go as follows. Suppose for *reductio* that an enduring object changes parts. So it has different parts at different times. So that object does not have *all* its actual parts at the present time. So it is not wholly present at the present time. So it can't be an enduring object after all.

This argument is fallacious. Its fallacy consists in ignoring the fact that "X *was* or *will be* a part of an object O" in no way suggests that "X *is* a part of object O"; thus X need not exist for all of object O's parts to be present. Compare: I *could have* a third hand as a part; this does not suggest that I am not wholly present

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<sup>4</sup>And quite condensed. For a more detailed version of that argument, see my "On the Incompatibility of Enduring and Perduring Entities" in *Mind* (1998): 523-531. Crucial parts of that argument are supported by arguments in my "Endurance and Indiscernibility," *Journal of Philosophy* (1994): 165-184 and "Persistence, Parts, and Presentism," *Noûs* (1999): 421-438.

unless that third hand exists and is a part of me. What *was* and *will be*, for the endurantist, will likely be thought of as analogous in this way to what *could be*. Or, more picturesquely, having parts at times other than the present will be thought of as analogous to having parts in possible worlds other than the actual. (These points are developed in detail in my “Endurance and Indiscernibility” and “Persistence, Parts, and Presentism.”)

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Monius wants to develop a sense in which universals “cause” universals. He notes that there would be trouble here if causation were defined wholly in terms of either sufficiency or, instead, of necessity. For the universals in question, all being necessary, are only trivially and uninterestingly necessary and sufficient for each other.

Smaller point: Monius says that “since no such universal could fail to exist, no other such universal is necessary for its existence” (p. 43). It is better to say that since no such universal could possibly exist *without* the others—after all, it is a necessary truth that if one necessary universal exists, so do all the others—every necessary universal *is necessary* for the others, but only trivially.

Larger point: He tries to make the case that we have no problem here, since, he argues, a relation of pure necessity or, instead, of pure sufficiency fails to capture adequately causation among particulars. He then concludes that his remarks “suggest that causation among particulars is a basic relation which can only be understood by using equivalent notions” (p. 44).

This conclusion is, in the first place, unjustified. Second, Monius does not need this conclusion to continue with his argument.

Let me start by explaining why the conclusion is unjustified. It is clear that Monius must deny that causation can be a matter only of necessitation or only of sufficiency. But in making this denial, he is in good company. No one, to my knowledge, defines causation in the ways that Monius rejects here.

So Monius offers compelling reasons to reject two accounts of causation, accounts that no one endorses. He does not, however, take on the sort of sophisticated reductive analyses of causation that are actually in the literature, such as those presented by defenders of counterfactual analyses of causation. (An entire issue of the *Journal of Philosophy* was recently (April 2000) dedicated to such analyses.) Since he has nothing to say about actual reductive accounts of causation, he is not entitled to conclude that all reductive accounts fail and that, therefore, causation is a “basic relation.”

But that’s not a problem. For his arguments to follow require only that it is *true* that causes “bring about” their effects. They do not require that “bringing

about” is itself unanalyzable or primitive or basic. So he should just say instead that, whether or not causation is a basic relation, it is true that causes bring about their effects. (He could add, if he wishes, that a cause’s *bringing about* its effects will be a constraint on any successful analysis of causation, if such an analysis really is possible.) Once Monius has the claim that causes are characterized by “bringing about” their effects, his argument can then go on as it does in the text.

(He then makes some claims about contingent universals. But note that even if the universals in question, such as Being a Bachelor, are not contingent but rather necessary, the discussion of them on p. 44 can proceed in just the way it currently does. After all, as Monius says on that same page, “This relation of priority is not only exhibited in the definition of contingent universals, but also in the definition of the necessary universals which are the Categories.”)

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Suppose that Being is structured as Monius suggests. There is still an objection to “Coming to Understanding.” Here is one way it might go:

Suppose we grant you everything in the last ten pages of the paper or so. Then we can see that certain *universals* are directed at other *universals*. Thus if one asked us what the end of the Patterned aspect of the Kinetic aspect of Spatio-temporal Particular Being was, we would answer that it is Universal Being itself. If the question of why the Patterned aspect (etc.) existed ever arose, we could answer that question by saying that the Patterned aspect (etc.) is directed at Being. But that question won’t arise. For the Patterned aspect (etc.) is a *necessary* universal. The question that will arise, however, is why particular contingent things exist. You haven’t answered that. For all the stuff about *Coming to Understanding* seems to involve only universals, not the things that exemplify them.

That is one way to put the objection. There are other ways to put what is, essentially, the same concern. To begin to see another way, consider the following passage from *Coming to Understanding*:

But since the Categories are themselves necessarily interconnected in the way we have detailed, if the Category of the Patterned aspect of the Kinetic aspect of Spatio-temporal Particular Being is instantiated then Being is instantiated, i.e., contingent beings exist. Thus it can be

truly said that contingent beings exist for the sake of the Coming to Understanding of the form of Being, which is Universal Being. (p. 56)

Obviously, if the Category of the Patterned aspect of the Kinetic aspect of Spatio-temporal Particular Being is instantiated, then Being is instantiated. This is obvious because, even if we set aside all the structure defended in “Coming to Understanding,” it is clear that if any universal is instantiated, then Being is instantiated. But how does that obvious fact imply—as the “thus” in the final sentence of the quoted passage seems to indicate—that the contingent things that instantiate being exist for the sake of Coming to Understanding of Being’s form?

Monius may respond that the quoted passage includes some facts I’m ignoring, facts about the nature of the necessary interconnectedness among certain universals. But we can still ask why those facts justify the “thus” at the start of the final sentence of that passage. What is it about the structure and interrelations among *universals* that justifies the conclusion about particular contingent beings? Put in this way, I hope it is clear that this worry is, at bottom, the same objection as the one inset above.

Monius can handle this sort of objection. But doing so requires revising (or perhaps just clarifying and disambiguating) his earlier claims about the “being directed at” relation. These revisions are independently plausible and I would suggest making them anyway.

Monius says:

...arguably the *primary* use of statements of purpose is to assert a purposive relation to a universal. Purposes are goals...Someone aims to run a four-minute mile...In formulating the runner’s end we must have recourse to a universal or kind—in fact it is the act-kind: his running a four-minute mile. His having that end means that any instance of the universal would count as a success. The end is a universal... (p. 50)

The last two sentences of this passage appear to conflate two claims: the runner’s end being the *instantiation* of a universal and the runner’s end being the *universal itself*. The example in question clearly supports the former claim. The runner’s end is that *he instantiates* the universal of Running a four-minute mile. If he fails to instantiate that universal, then he fails to achieve his end (even if he stands in a variety of other relations to that universal).

So Monius should drop the claim that ends are universals. Indeed, his own examples support the claim that ends are the *instantiations* or *exemplifications* of universals. (It is not clear to me whether what I am suggesting here and even to

some extent in what follows is a revision in Monius's views or instead a repair of a misleading presentation; in either case, the remedy is the same.)

So it seems right that Monius should say, in light of his own examples, that ends are instantiations of universals. Indeed—and given Monius's own example of a runner (not a universal) having ends—I think we should add that (at least sometimes) ends are *had by* the instantiations of universals (like the instantiation of Being a runner). If we say this, we can easily respond to the objections I entertained above. For now when Monius says that universals are “directed at” other universals, we can read this as saying that the *instantiations* of those universals are “directed at” the *instantiations* of other universals.

This solves the problem noted above. For given the “long teleological arc” called “Coming to Understanding,” we can insist that the particular things that are the instantiations of the Patterned aspect of the Kinetic aspect of Spatio-temporal Particular Being are themselves directed at the instantiation of Universal Being. If we explain the existence of contingent particulars in this way, the objection put in two different ways above does not even arise.

## Review 7: Eugene Mills

### I. Introduction

If we ask why some particular contingent being exists, we typically look to the sciences for an answer. If we ask why any contingent beings exist at all, science goes mute. According to A.M. Monius<sup>1</sup>, philosophy promises an explanation for the existence of contingent beings: they exist “for the sake of the coming to understanding of the form of Being Itself by contingent being” (16)<sup>2</sup>. *Coming to Understanding* is devoted to explicating and defending this claim.

Monius writes with elegance and erudition. Although many of his claims and arguments face difficulties, as I shall argue, it is to his credit that he never shrouds these difficulties in hazy prose. Being Itself has a baroque architecture, on Monius’s account. The classically clean lines of his blueprint of it are therefore all the more impressive.

The work divides into two main parts. In the first part (1-17), Monius provides an argument for his main thesis that does not rely explicitly on any substantive theses about “the form of Being.” In the second (18-56), he aims to lay bare that form. In doing so he aspires to bring us to that understanding for the sake of which (he argues) contingent beings exist.

The two parts share presuppositions, and they interpenetrate and inform one another. Nevertheless they are largely separable. One might in principle agree with Monius that contingent beings exist for the sake of the coming to understanding of the form of Being while nevertheless holding that his account of that form is mostly mistaken. Conversely, one might buy his account of the form of Being while rejecting his argument for the claim that the understanding yielded by that account explains the existence of contingent beings. I will divide my commentary accordingly.

*Coming to Understanding* has a tight focus but a broad sweep. It is dense with arguments, almost all of which call for close examination and extensive commentary. Providing such examination and commentary here would yield a review ten times the length of its subject. Accordingly, I will focus primarily on the large-scale arguments and on the implicit foundational presuppositions that form the skeleton of the work, for I think that these have some problems that, unless they are solved, render the details of the account moot.

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<sup>1</sup> The name is either a fantastic coincidence or a pseudonymous homage to Ammonius, a Neo-Platonist of the Alexandrian school.

<sup>2</sup> All page references are to *Coming to Understanding*.

## II. The Explanatory Argument.

The argument of the first part proceeds via “inference to the best explanation.” Monius never invokes this familiar principle by name, but his argument depends on it. He begins by considering and rejecting three familiar explanations for the existence of contingent beings: Theism, Spinozism, and the Many Worlds Hypothesis. His reasons for rejection generate desiderata that any adequate explanation must meet. Among these is the requirement that such an explanation must appeal to an impersonal good. After canvassing and dismissing some few candidates for such an explanatory good, he proposes his own candidate and argues that the explanation it generates meets all the relevant desiderata. Since no other explanation—certainly no better explanation—is available that meets them, his explanation is the one we ought to accept.

At any rate, I see no other plausible interpretation of the discussion that runs from pages 4 to 17; if Monius intends something different, he needs to clarify the overall structure of the argument.

To defensibly employ inference to the best explanation, we must meet at least four conditions. First, we must have some datum (or data) to be explained, and we must be justified in taking it *as* a datum. Second, we must be able to show that our preferred explanation really is superior to rival ones and also (as I shall argue) that it exceeds some non-relative threshold of acceptability. Third, we must be justified in thinking that we have considered all the available potential explanations for our data. And fourth, we must be justified in thinking that an explanation’s scoring highest of any qualifying candidate provides a reason for thinking that the explanation is actually true.

Monius never explicitly addresses the last of these two criteria. Neither shall I, except to note that some explicit discussion of their applicability to his argument would be welcome. I will focus instead on the first two points, which are—as we shall see—closely related.

The datum that Monius seeks to explain is the existence of contingent being. His chief basis for rejecting each of the three familiar explanations that rival his own is that these rivals eradicate rather than explain the contingency at issue.

If God exists necessarily and is necessarily perfect, as theists assert, then it seems that his creation of contingent being is a necessary result; but “necessarily created contingent being is not contingent at all.” The misleading appearance of contingency results from the finitude of our minds.

Spinoza’s familiar commitment to the absolute necessity of all truth commits him to the absolute necessity of all beings, since for any being, there is a truth to the effect that it exists.

On the Many Worlds Hypothesis, every possibility is realized in some world

or other. For any truth  $T$  that holds in our world, it is true in every possible world—that is, necessarily true—that  $T$  holds in our world. So this hypothesis, too, relegates contingency to mere appearance—an artifact of our cosmic provincialism.

These rejections may ultimately be correct, but they are too quick, and for two reasons. First, it is unclear whether Theism really entails the necessity of all beings. Second, the best explanation for a “given datum” sometimes does not explain the “datum” at all. Instead it shows that what was taken to be a datum is not one, but that there is a good explanation for why it *seemed* to be one: that is, it explains the intuition that something *is* a datum. Even if Theism *does* entail the necessity of all beings, it, along with the other two explanatory hypotheses, can be seen as attempts at explaining the intuition that contingent being exists—call this ‘the intuition of contingency’—while denying its literal truth. If a convincing explanation can be given of this intuition that does not ratify its truth, insisting on that truth needs more justification than merely pointing out that its truth is intuitive. For what it’s worth, I agree with Monius that the intuition of contingency is true. But agreement is not argument, and argument is needed.

Let me consider these two reasons in more detail, beginning with the question whether Theism is inconsistent with our intuition of contingency.

**A. Theism.** Consider for a moment the claim that “necessarily created contingent being is not contingent at all.” On one interpretation, this is at least not obviously true. Consider all the contingent beings that ever have existed or ever will exist. To say that a being is contingent is to say that it might not have existed. Now, it is perfectly consistent to maintain both that *no* actual contingent thing might have existed and also that it is necessary that *some* contingent thing exists: it is not logically contradictory to maintain that it is necessary that *some contingent thing or other* exists.<sup>3</sup>

So “necessarily created contingent being” might perfectly well be contingent: it might be necessary that God creates some being or other, but not necessary that he creates this one rather than that. In this case, the beings he creates would still be contingent.

To make good his argument, Monius needs to do at least one of two things. He might argue that Theism entails that God made the world just as it is, so that no being is contingent. This strategy does not require the claim that there might have

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<sup>3</sup> In symbols: ‘ $\text{Nec}(\exists x)\sim\text{Nec } Ex$ ’ is not an inconsistent formula (where ‘ $Ex$ ’ abbreviates ‘ $x$  exists’). In fact, it is perfectly consistent to maintain even the stronger claim both that every member of a collection is a contingent being and also that it is necessary that at least some (actual) member of that collection exists.

been no contingent beings at all. It allows (though it does not require) that it is necessary that some contingent beings (or other) exist, while still permitting the argument that Theism is ruled out as inconsistent with the existence of any contingent being whatever. Alternatively, he might insist (as he seems to want to do) that there might have been no contingent beings at all and that Theism cannot accommodate this fact: Theism entails that God creates *something*.

These two strategies impose inverse demands. The first requires only a relatively weak intuition of contingency—to the effect that there are genuinely contingent beings—but it demands an ambitious theistic argument to the effect that God could not have made the world other than as he did, in every detail. The second requires far less of God—only that he necessarily made something or other—but requires a stronger, more controversial intuition of contingency to the effect that there might have been no contingent beings whatsoever.

There is a tension in Monius's work at this point—a needless one, I think. On the one hand, it is clear that Monius wants to defend the strong intuition of contingency: indeed, the content of this intuition—that there might have been no contingent things whatsoever—is the central datum he undertakes to explain. But if this is right, then his rejection of Theism either overreaches or falls short. I will suggest a way that its aim might be improved.

Monius complains that

if Theism meets the cosmological question by saying that God just had to create this world with these details then what is clearly contingent is misrepresented as the necessary outcome of the necessary intention of a necessary being. (5)

*If* Theism meets the cosmological question in this way, then it is doomed for the reason that Monius gives (given the truth of the weak intuition of contingency). Monius never considers, however, whether Theism might meet the cosmological question in some other way. I can only speculate that this is because he thinks no other answer is open to the Theist.

*Why* should we think that Theism requires the necessity of every detail of the world? Monius's argument for this claim starts this way (7):

According to Theism, God is a necessary and perfect particular who has a capacity to form and act out of a creative intention. Since the world—the object of that creative intention—is, on pain of Spinozism, contingent, this creative capacity could have remained unrealized.

As my distinction between the strong and the weak intuitions of contingency

shows, there is a misstep here. For it is perfectly consistent to maintain that God's creative capacity could *not* have remained unrealized without adopting Spinozism: one can maintain the weak intuition of contingency without maintaining the strong one.

One motivation for this position derives from the traditional problem of evil. If God exists necessarily and is necessarily perfect, then (it seems) it is necessary that he creates the best of all possible worlds—which is, then, the *only* possible world. Hence no detail of the world could have been otherwise, nor could the world have been better than it is—but both of these suppositions are fantastic, as Monius rightly insists.

Among the many responses to the problem of evil, only one stands out (in my view) as remotely promising. God need not create the best of all possible worlds if there is *no such world*. The traditional problem presupposes that there is a maximally good possible world. But if there is no such possible world, it surely is not incumbent on a perfect God to actualize it. The theist might maintain that while possible worlds may be ordered with respect to goodness, there is no upper bound to the ordering: for any possible world, a better one is also possible.

Suppose this is right. What, then, is demanded of a necessarily perfect being?<sup>4</sup> One plausible answer is that God necessarily creates a world that is *good*—that is, good *enough*. God's perfection does not require, impossibly, a perfect creation, but it rules out a shoddy one. Beyond this (the line goes) nothing in God's nature strictly *necessitates* the creation of one good (or perhaps very good) world rather than another.<sup>5</sup>

If the theist takes this route, he can respect the weak intuition of contingency: he can allow that God's perfection does not necessitate every detail, or any detail, of the actual world. Monius's claim to the contrary overreaches, unless he addresses and rebuts the theistic conception just bruited.

It is plausible to think, however, that on this conception Theism still cannot respect the strong intuition of contingency. For it seems necessary that given a choice between creating a good world and no world at all, a perfect being would

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<sup>4</sup> Skepticism about the intelligibility of the notion of a maximally good world might naturally breed skepticism about the intelligibility of the notion of a maximally good being of any sort, hence about the intelligibility of the notion of God. But it would take considerable argument to sort out these issues and their interconnections.

<sup>5</sup> For that matter, the theist could even allow that there is an achievable upper bound to the goodness of a world, but that it is not uniquely satisfiable: there could be two or more maximally good worlds. In this case, God's perfection would necessitate that the world is maximally good but it would not necessitate one maximally good world rather than another. This view, though coherent, is still radically implausible, for it requires that the world *could not have been better* than it is.

create a good one. To create a good world requires creating contingent beings. Hence God's perfection is inconsistent with the thesis that there might have been no contingent beings whatsoever.

Since the strong thesis of contingency is Monius's avowed datum, he does not need to rely as he does on the questionable claim that God could not have failed to make the world just as he did in every detail. He should instead articulate and defend the weaker, hence more easily supportable, claim that God could not have failed to make *some* contingent beings or other. Of course, *if* he can make good the stronger claim, he will *ipso facto* have made good the weaker; but as I have suggested, there is an easier route to the weaker claim.

**B. Explaining Contingency and Explaining It Away.** Suppose, though, that Monius can make good the strong claim that Theism requires the absolute necessity of all truths. I grant that Spinozism and the Many Worlds Hypothesis have the same upshot. (Prominent advocates of the Many Worlds Hypothesis would dispute this characterization of its consequences, but I do not.) As Monius says (5) of the Many Worlds Hypothesis,

this falsifies our original intuition of contingency. What we wanted was the explanation of *contingent* existence, not an account that tells that it is an illusion and so not there to explain at all.

Monius takes an account's falsification of the intuition of contingency as decisive grounds for rejecting it. Once again he may ultimately be right—I think he is—but he needs to say much more before he is entitled to that verdict.

Consider these two theses:

- (a) there might have been no contingent beings; and
- (b) we have an intuition that there might have been no contingent beings.

We take the truth of (a) as a datum to be explained. Monius criticizes Theism et. al. for *denying* (a) rather than explaining it. But what he overlooks is that they *do* provide an explanation—though perhaps not an adequate one—for (b). And this fact puts the status of (a) in question.

Granted, (a) has intuitive clout. Suppose we ask for the explanation of (not (a) but) (b): why do we have the intuition that there might have been no contingent beings? The answer we would *like* would involve, at least in part, the truth of (a): we *think* that (a) is true because (at least in part) (a) *is* true. Suppose, however, that we can fully explain (b) without appealing to the truth of (a) at all. Such an

explanation would seem to undermine our basis for continuing to believe (a).

Consider an untutored stargazer who seeks an explanation for the real motion of the sun around the earth. We offer her the outlines of Copernicanism coupled with the rudiments of Newtonianism, explaining that there is no real motion of the sun around the earth but also explaining why it appears as though there is. Surely she would not be justified in rejecting our explanation on the grounds that it “falsifies [her] original intuition” that there is a real motion of the sun around the earth.

All three of the rival accounts that Monius seeks to depose provide, or at least have the resources to provide, an explanation for our intuition of contingency even while they falsify it. The explanation derives in each case from limits on our perspective.

Consider the Leibnizian view that the predicate of every true statement is contained in the subject, but that in some cases only an infinite analysis, accessible only to an infinite mind, can discern this containment. On this view, all true statements are *really* necessary, though Leibniz would resist this terminology; but we will discern as necessary only those for which we can carry out the requisite analysis. Had we greater powers of analysis, infinite powers, we would see the real necessity of all truths.

This sort of Leibnizian view is available to both the Theist and the Spinozist. What is our epistemic basis, after all, for finding a proposition to be *possibly* true? The received view answers: *conceivability*. If we discern a contradiction in attempting to conceive of a proposition’s truth, we deem it necessarily false; if not, we grant it possibility. But if this is right, then our intuitions of contingency—intuitions to the effect that certain propositions are *possibly* true while actually false—are explicable by our inability to discern contradictions that are, in fact, there.

The Many-Worlder can take a different but analogous tack, chalking up the intuition of contingency to our tendency to conflate world-indexed with non-world-indexed statements. “There are dogs but might have been none” is true on its customary usage according to the Many Worlds Hypotheses, for on that usage it means simply that while dogs inhabit our world, other worlds are dogless. Our intuition that that there might have been no dogs *at all*, anywhere in reality, derives from our customary failure to distinguish this usage from a “philosophical” usage. On the latter usage it says something incoherent, namely that while there are dogs in our world, there are possible worlds in which it is true that there are no dogs in *any* possible world, including ours.

I do not endorse any of these explanations of the strong intuition of contingency; my sympathies here lie wholly with Monius. But philosophy is about argument, not sympathy, and these argumentative lacunae need filling.

**C. Teleological Explanation.** So far I have considered Monius’s rejection of Theism, Spinozism and the Many Worlds Hypothesis as explanations for the strong intuition of contingency. Suppose now that he is right that these explanations fail to explain the *truth* of that intuition and also fail to explain away our *having* that intuition. I turn now to Monius’s proposed explanation for the fact of strong contingency—that fact, that is, that there might have been no contingent beings whatsoever.

Monius advocates a teleological explanation for the existence of contingent beings: they exist, he argues, for the sake of a certain good, and this fact explains their existence. We may defer for now questions about the specific good that Monius has in mind, for we must first confront quite general questions about this style of explanation.

Inference to the best explanation is often criticized on the grounds that we often are clearly unjustified in accepting a certain explanation for given data even though it is the best one available. If all available explanations are wretched, reason commands us to withhold judgement, not to accept the best of a bad lot. Defenders of inference to the best explanation have a sound reply to this criticism. They should not be caricatured as holding simply that “it is reasonable to accept the best available explanation;” instead they hold that it is reasonable to accept the best available explanation *that meets a certain threshold of explanatory adequacy*.

To meet this threshold, an explanation must at least offer *intelligibility*: we must be able to understand how the offered *explanans* could explain the assumed *explanandum*, whether or not it does explain it. It is on precisely this score that teleological explanation is often faulted: critics complain that they cannot understand how such an “explanation” could *possibly* explain anything.

Monius’s familiar examples of apparent teleological explanation have equally familiar non-teleological reconstructions. Biologists would deny the literal truth of the claim that “The spider built the web in order to catch and eat the fly” (6), while admitting that these words are a convenient shorthand. To speak with the learned instead of the vulgar, we should say (roughly) that the spider built the web because it is genetically programmed to do so. The existence of spiders with such genetic programming is explained by the fact that this programming confers selective advantages—where this means that spiders with such programming are more likely to reproduce successfully, and to pass the relevant genetic programming to their progeny, than those spiders without such programming. The “real” explanations are all straightforwardly causal—where the notion of causation involved is strictly that of efficient causation. The same point applies to Monius’s other examples.

Again, this is a familiar response to claims of teleological explanation. If Monius thinks that the web of causal explanation leaves some genuine explanatory residue uncaught, he needs to articulate and defend this claim.

Although I have considerable sympathy with Monius's invocation of explanatory force for goodness, I confess ultimate sympathy with the critics' mystification. Alas, Monius's attempts at enlightenment do not help. He says (6):

[T]he idea of an impersonal purpose is no more than the idea that some things happen because they should, i.e. because it is good that they do. In the end, this very idea is what makes sense of someone's forming and acting on a plan. What really makes intentional goal-directed action intelligible is the perceived good or reason for which it is done.

Now, it is not quite right that "impersonal purpose" is just the idea that some things happen because it is good that they do. Suppose A helps B because A believes that it would be good for him to help B. Then what immediately explains A's helping B is A's holding that belief. ("Immediately" for present purposes, anyway.) But what explains why A believes that it would be good for him to help B? One possible answer is that A believes this because it's *true*: it's the *fact* that it would be good for A to help B that explains why A *believes* it.

This cannot be the *whole* of the answer on anyone's view. Given that there are lots of truths about what it would be good for A to do, some of which A believes and many of which he doesn't, merely pointing out such a truth does not suffice to explain why A believes it. But we can allow this while still maintaining that the truth about what's good is at least *part* of the explanation for A's belief.

Whether even this modest claim is intelligible is much disputed. I do not dispute it. But this modest claim does not suffice to vindicate teleological explanation. For such explanation—at least if it is to do the work Monius requires of it—must be an *alternative* to (efficient) causal explanation. (Obviously, no adequate ultimate explanation of the existence of contingent beings can appeal to their efficient causation by other such beings.) But to say that A's helping B is explained by the fact that it would be good for A to help B is to say something that makes no sense unless supplemented, explicitly or implicitly, by causal explanatory claims.

It is one thing to say that *X's being good* can explain (at least in part) why someone *believes that X is good*. This is just a corollary of the quite general point that a proposition's being true—whether the proposition is evaluative or not—can at least sometimes explain why the proposition is believed. This sort of explanation has its own mysteries, but it is not teleological explanation. To explain S's believing proposition P teleologically would be to explain S's belief by appeal to *the goodness of S's believing P*. But we are explaining S's believing proposition P by appealing not to any such goodness but rather to the *truth* of P.

It is quite another thing to say that *X's being good* can explain teleologically why X exists. One might object that, on the contrary, once we admit the point about belief, we are committed to such explanation. For suppose X's being good explains why S believes that X is good, and S's believing that X is good explains why X exists—say, because S's belief is his reason for bringing X into existence. Explanation is transitive: if A explains B and B explains C, then A explains C. Hence (the argument goes) X's being good explains why X exists.

Indeed, this seems to be just Monius's strategy. Consider his discussion (7) of Plato's *Euthyphro* dilemma:

God's will... cannot be the arbitrary *source* of goodness but is only intelligible as aiming at goodness. Thus Theism's fundamental explanation embodies the idea that some things happen because they should. Once that is admitted, the appeal to divine intention drops out as no longer fundamental.

The last claim here may be true, depending on exactly what 'fundamental' means. But it is a *non sequitur* if it is supposed to mean that divine intention has no *essential* explanatory role to play. Another way to put the point is that it is not at all clear that the explanation-relation is transitive in the way that Monius suggests.

What seems intelligible is that one might believe something because it is true, and that one's believing might then causally explain subsequent events or beings. What is not clearly intelligible is how the goodness of a potential state of affairs might explain the existence of that state of affairs in a way that does not essentially involve a belief—or at least some belief-like cognitive state, Monius's "personal purpose"—in this way. To say that A explains C because A explains B and B explains C emphatically does *not* entail that A might explain C directly, without any explanatory intermediary. Yet Monius seems fallaciously to presuppose just this entailment.

One might complain that I raise the bar too high. If the goodness of a potential state of affairs can explain its existence, why isn't this enough for Monius's purposes? Why does it matter whether the explanation necessarily involves some doxastic state as a causal intermediary?

The answer is that an explanation, such as a theistic one, that required appeal to the causal efficacy of a doxastic state—to a personal purpose—would be flatly inconsistent with a crucial claim of Monius's. He avows that an adequate explanation of contingency "must be a purposive explanation, where the purpose is not mediated by the intention of some pre-existing mind" (9).

Consider the existence of all the contingent stuff of the universe before the rise of any biological life. If the existence of this stuff cannot be explained without

appeal to a personal purpose, to whose purposes are we supposed to appeal? If it is the purposes of natural, contingently existing people—us—then we are committed to a dubious backwards efficient causation. But the only other candidate seems to be God, and Monius is squarely opposed to a theistic explanation of strong contingency. Although I've argued that Monius needs to bolster his argument against a theistic explanation, I've also suggested a way that he might do so, and I agree with him that no such explanation can work.

In short, Monius fails to make intelligible the sort of teleological explanation to which he aspires. Unfortunately, its intelligibility is a necessary precondition for the intelligibility of some of his later arguments concerning teleological explanatory connections among elements of Being. For this reason, I omit discussion of these later arguments. (I will, however, devote considerable attention below to the most fundamental aspects of Monius's account of "the structure of Being.") What Monius needs to do, first and foremost, is to answer the familiar objections raised against the intelligibility of purely teleological explanation. Until this is done, his proposed explanation does not meet the threshold of adequacy that would make it a contender in a live contest of explanations. On the basis of Monius's discussion, inference to the best explanation yields no verdict.

Before moving on to Monius's account of the structure of Being, I should make some general methodological remarks about the explanatory argument. While I agree with Monius's verdict on the explanations offered by Theism, Spinozism, and the Many Worlds Hypothesis, I have argued that his own explanation fares no better. Do I, then, have a better explanation to offer, or do I insist that there can be no explanation of the strong thesis of contingency? Neither. I am happy to admit that there may be an explanation that exceeds my grasp, and I am also happy to admit that there may be no explanation whatsoever; I don't pretend to know which it is. To allow that there may be no explanation for the strong thesis of contingency is not to fall into the trap that Monius rightly warns us about, the trap of holding that there can *in principle* be no such explanation. It is simply to affirm that it is an open question whether there is one.

Although he never states it explicitly, Monius seems to flirt with a version of the principle of sufficient reason—the principle that there *must be* an explanation for the existence of contingent beings. Such a principle seems just as suspect as its opposite number, the thesis that there *cannot be* such an explanation. But even if we were to accept that there must be an explanation, we might still have to accept modestly that it remains beyond our ken. Monius has given no compelling reason to abandon such modesty.

### III. The Structure of Being.

Monius argues that what teleologically explains the existence of contingent beings is an ultimate good, a *summum bonum*, which is “the coming to understanding of the form of Being Itself by contingent being.” In the second main part of his work, Monius tries to bring us to this understanding by articulating the form of Being.

We must distinguish three separate issues in connection with this alleged *summum bonum*, the coming to understanding of the form of Being. First, *is* it really the ultimate good? Second, if it is, does it really explain the existence of contingent being? And third, is the understanding that Monius tries to provide us a *correct* understanding?

I have argued that Monius has not adequately supported a positive answer to the second question, since there is a fundamental flaw in the notion of teleological explanation that he employs. For this reason, I have so far passed over the first question, whose answer is only of direct relevance to Monius’s overall project if we have a positive answer to the second. But the third question has some interest independent of the other two, and to it I now turn. I will argue *en passant* that a difficulty in Monius’s account of the structure of Being bodes ill for a positive answer to the first question.

The articulation of the structure of Being is guided by four Axioms (41-2). The first is

Axiom 1: (Axiom of Unity) Being itself is the *Summum Genus*, the most inclusive of all the necessary universals that are the Categories.

Before we can assess the truth of this axiom, we must understand it. To understand it, we must understand what Monius means by (among other things) ‘Being’, ‘universal’, and ‘inclusive’.

**A. Universals.** Monius’s claims about universals, and what distinguishes them from particulars, form a diverse lot. He tells us that “the core of the Categorical distinction between universals and particulars” is that particulars “are capable of being duplicated, whereas universals are not,” and that “to be a universal is to be potentially found in many particulars” (8). In apparent explication of these claims he says (23) that

One can in principle suppose that there is something that duplicates any particular, another particular of precisely the same sort. But no sense is to be made of ‘copying’ or duplicating a universal.

We are also told that “to be a universal is to be potentially found in many particulars” (8). Monius also says that particulars “are located in space and time,” while universals are “instantiated at various locations in space and time.” He glosses this last point by saying that universals, unlike particulars, “can be at different places at the same time” (23). Finally, Monius lists a property, a relation, and a kind as examples of universals (26).

These claims do more to obscure the nature of universals than to clarify it, in my view. I am about to explain why. Before I do so, let me say why I think this is important. For it is not obviously so: we all understand the difference between a universal and a particular, you might say, and whether Monius makes a few missteps in his characterizations is beside the point. As long as we understand what a universal is and what a particular is, we can get on with Monius’s substantive project.

Alas, I am not sure I do understand the distinction. I think I understand the distinction between things that are properties and things that are not properties. I think I understand the distinction between things that are universals—which I take to be properties of a certain sort—and things that are not universals. But neither of these distinctions quite matches up with Monius’s alleged distinction between universals and particulars, or with his claims about the nature of Being *as* a universal. And I do not quite see how to make sense of that distinction or of those claims. So to overcome my difficulties with his account of “the structure of Being,” I must overcome my difficulties with his account of the distinction between universals and particulars. Hence those difficulties are worth stating.

Consider first the claim about duplicability. Any given particular is duplicable, says Monius, because one can “in principle suppose” that there is another particular of exactly “the same sort,” but no universal is duplicable in this way. Now, taken at face value, there is no such thing as *the* sort to which a thing belongs, for each thing is of many sorts. My pencil is of the sort “yellow thing,” “writing implement,” “manufactured thing,” “mostly wooden thing,” “thing that weighs 7 grams,” and so on. For each of these sorts, something other than my pencil could well be “of the same sort” and so could in this weak sense “duplicate” my pencil. My computer, for example, is of “the same sort” as my pencil in that both are manufactured things; my pen is of the same sort in that both are writing implements.

This weak sort of “same-sortness” cannot be what Monius has in mind. For by this standard, properties (for example) are just as duplicable as their concrete instances. Consider the property of being red and the property of being yellow. These are properties of “the same sort”—they are both color-properties, unlike (say) the property of weighing 7 grams.

It will not help to say that a thing is duplicable just in case there could be

another thing of *all* the same sorts as the original. For every property of a thing determines a sort to which it belongs. Hence if A and B are of all the same sorts, they have all the same properties, and so (by Leibniz's Law) they are the *same* thing.

Monius drops one small hint about a way out. He says (8) "Nothing could be a duplicate of the universal White, anything with just the intrinsic properties of this universal would be this universal." He does not elaborate on this point about intrinsic properties, but perhaps it holds the clue to his intentions. Perhaps we are to understand a particular as something whose identity is not determined by its *intrinsic* properties: if distinct things could share all the same intrinsic properties, then those things would be particulars, whereas if something could not share all its intrinsic properties with something else, then it is a universal.

This suggestion raises two new questions. The first is: what is an intrinsic property? The second is: given a reasonably clear grasp of what an intrinsic property is supposed to be, does this way of distinguishing universals from particulars capture the intuitive distinction?

The notion of an "intrinsic property" is rife with confusion. A crude understanding of the notion would have it that a property is intrinsic to a thing just in case it is a property that the thing would have if nothing other than it existed. *That* this is a crude understanding is obvious on a moment's reflection. Assuming that there are at least two necessary existents (say, Universal Being and Particular Being), it entails the absurdity that every property is intrinsic to everything. For a counterfactual with a necessarily false antecedent—say, "If Universal Being did not exist, then my pencil would instantiate the property of being the King of France"—is necessarily true.

Repairing the crude understanding is not as simple as adding an exemption for necessary existents. For even with such an exemption, the property of *being the only contingent thing in existence* would still come out as intrinsic. Yet it seems that if something were to have this property, it would have it only by virtue of how things were (or weren't) around it, not by virtue of its "intrinsic nature."

This is not the end of the story, of course. The current literature contains at least a couple of careful, sophisticated—and competing—attempts at capturing most of what people seem to have in mind with talk of "intrinsic properties." Even the authors of these attempts admit, however, that their accounts do not capture *all* of what people normally have in mind. And the reason seems to be that *all* of what people normally have in mind is an inconsistent morass of ideas. If Monius is to base the distinction between universals and particulars so squarely on the notion of intrinsic properties as he seems to do, he owes us some adequate account of what an intrinsic property is supposed to be.

(The reason the going accounts compete is most likely that their

philosophically sophisticated authors, in trying to capture what's most salient in the normal meaning of 'intrinsic' while avoiding inconsistency, make different judgments about what's most salient. Hence they make different judgments about which elements must be preserved and which may be jettisoned in fashioning a consistent approximation to an inconsistent original. These differing judgements issue in differing verdicts about which properties count as "intrinsic.")

I have complained that the notion of an intrinsic property is at least unclear and perhaps inconsistent. Monius could grant that it is unclear in the sense of being *vague* while insisting that like many vague notions, the existence of borderline cases does not prevent us from recognizing clear cases of its applicability and of its inapplicability. Nor does our inability to analyze the notion make it suspect. It is a truism that inability to provide an adequate analysis of a notion does not show failure to grasp it; on the contrary, our ability to recognize proposed analyses as defective shows that we *do* have a substantial grasp of the notion in question. Had we no such grasp, we could not recognize counter-examples to proposed analyses.

Grant this; grant some intuitive grasp of the notion of an intrinsic property; and grant that what is grasped is not inconsistent. On whatever such grasp I possess, Monius's account still has problems. For one thing, it ignores the eminently respectable view that there are *haecceities*, "individual essences." The haecceity of a given rock is supposed to be the property of *being that very rock*, a property that the rock in question possesses essentially and that no other rock could possibly possess. Haecceities are, presumably, intrinsic properties if they exist at all. So Monius must argue against their existence if he is to salvage his account of the distinction between universals and particulars.

Monius does assert that a particular is just a "conjunction of universals" (8). There are two problems with this assertion. First, in the only way that I can understand it, it seems inconsistent with the only view of universals that seems promising for Monius's project. I will argue this below, so I postpone it for now. Second, it is open to familiar objections. Not just any conjunction of universals is a particular: what particular, for example, is the conjunction of White and Heavy? Anyone who accepts the "bundle theory" of particulars owes us some account of what ties the bundles together. Absent any such account, the bundle theory seems scarcely intelligible, and it certainly poses no threat to the existence of haecceities.

Let's turn now to Monius's claim that "to be a universal is to be potentially found in many particulars" (8). The property *being a U.S. citizen at midnight on January 1st, 2001* is, presumably, a universal by this claim. The property of *being the President of the U.S. at midnight on January 1st, 2001* is not. For 'the' imputes uniqueness: it is logically possible for the U.S. to have *co-presidents*, but it is not logically possible for there to be two or more people, each of whom is *the*

President. Since the property just mentioned is not potentially found in many particulars, it does not qualify as a universal on Monius's characterization. Similarly, properties that necessarily have *no* instances, such as the property of being a rational square root of two, do not count as universals on Monius's view.

This point is not an objection to the characterization of universals as "potentially found in many particulars." It may well seem reasonable to withhold the title 'universal' from a property that necessarily can be instantiated only uniquely or not at all. It does, however, call into question Monius's claim that the distinction between universals and particulars lies "at the heart of reality" (23). For lots of things—lots of properties, for instance—do not qualify as universals on Monius's characterization but do not qualify as particulars, either. The properties of being a married bachelor and of being the square root of two are not found in space and time; I suspect Monius would assert that neither is duplicable; and yet neither is potentially found in many particulars. So his distinction between universals and particulars is not exhaustive. Many things fall into neither camp.

Finally, Monius's claim that universals are "instantiated at various locations in space and time" seems dubious if taken as a defining characteristic. For among universals are those whose instances are other universals. Thus the property of *being a color-property* is a universal whose instances include *being red* and *being blue*. Where is the universal *being a color-property* instantiated? Where its instances are. But the property of *being red* is not located anywhere in space. Hence the property of *being a color-property* is a universal that, though instantiated, is instantiated nowhere in space.

This point is easily obscured by the common convention, which Monius adopts, of expressing the claim that a property is instantiated at a given place by saying that the property is actually "at" that place. This convention allows for compact expression, but it can mislead. Monius seems to recognize this, allowing that he uses the locution of "being at" a place or time to express not one but *two* "ways of being related to space and time" (23). One way is the relation of *being located* at a place or time, the other the relation of *being instantiated* at a place or time. A universal is instantiated where its instances are located. Hence universals are sometimes instantiated in space, since their instances are sometimes spatially located. But some universals are necessarily not instantiated in space, even though instantiated. For their instances are sometimes properties or other universals, and these are not located in space at all (though they may be instantiated there).

In sum, Monius has considerable work to do in clarifying the distinction he invokes between universals and particulars. I have not complained at all about the invocation of *properties*, however, and I am happy to countenance universals as those properties that are possibly multiply instantiated. (What I deny is that whatever is not a universal is a particular, and vice versa, given Monius's account

of these things.) Now, it may seem that Monius could cast his account of Being and its structure by construing Being as simply the universal that is *the property of existing*. To this suggestion I now turn.

**B. The Meaning of ‘Being’.** Monius’s earliest characterization of Being (2) is this: “The traditional metaphysical name for reality as a whole is Being.<sup>6</sup> Being is exemplified in individual existents or beings.” There is a tension in this characterization that throws the notion of Being into obscurity.

If Being is the whole of reality, then presumably individual existents—this dog, that tree—are parts of that whole. So on the one hand the relation between individual existents and Being itself seems to be the part-whole relation.

The part-whole relation is a different relation, however, from the exemplification (or instantiation) relation that holds between an instance of a property and the property itself. My alternator is a part of my car, but it is not an *exemplification* of my car. It is an exemplification of the property of being an alternator. (It is also an exemplification of infinitely many other properties, of course—the property of being an auto part, of being a material object, of being smaller than the Taj Mahal, and so on.) Only properties (including relational properties, kind-properties, and so on) can have instances. Particular cars, trees, and dogs, which are not properties, cannot. And it is at least seriously contestable that properties can have parts, whereas it is not so contestable that concreta such as cars can.

So we have an immediate question: is Being supposed to be a whole that has every existent as a part, or is it supposed to be a property that has every existent as an instance?

Recall that Being is supposed to be “reality as a whole.” Now, Monius also tells us (12) that “[b]y reality as a whole we mean Being itself and all individual beings thought of as instantiating or exemplifying Being.” Substitution of (alleged) synonyms yields the result that what’s meant by Being (or by ‘Being’) is Being itself *and* all individual beings thought of as instantiating or exemplifying it.

Now, presumably ‘Being’ just means *Being*. If so, I can think of only two possibilities for understanding this locution. The first requires the implicit assumption that to refer to (or “mean”) a whole is to refer to its parts. Given this assumption, Monius’s claim about the whole of reality uses redundancy merely for

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<sup>6</sup> Presumably Monius means that the name is ‘Being’, not Being: the whole of reality is not a name of anything. *Coming to Understanding* is replete with use-mention difficulties of this sort. But since they do not, so far as I can see, bear on the substance of the arguments, I will henceforth let them pass unremarked and adopt Monius’s casual attitude towards the use of quotation marks.

emphasis: ‘Being’ just refers to Being, but (given our implicit assumption) it also refers to the parts of Being, and these are the individual beings that instantiate it. (I assume that Monius’s talk of individual beings “thought of” as instantiating Being is a mere slip: surely the whole of reality includes many things that instantiate Being but that have never been thought of.)

On the second way of understanding Monius’s claim about the whole of reality, Being is understood as a property—the property of existing—that is numerically distinct from its instances. On this understanding, the claim about the whole of reality makes perfect sense: the whole of reality is just everything that exists, which is to say that it is the property of existing (Being) plus everything that has that property. On this conception of Being, however, it is simply a mistake to say that Being *is* the whole of reality. A pencil is not a part of the property of existing, yet it is a part of the whole of reality.

Monius seems, then, to equivocate between two quite different senses of ‘Being’. I shall argue below that on either sense, his axioms face difficulties. Hence Monius has some reconstruction to do.

I will consider shortly whether Monius might escape the charge of equivocation I have made against him. First let me give another reason why he ought to try. According to Monius, coming to understand the structure of Being is the *summum bonum*, the ultimate good that explains the existence of contingent being. The first of the three fundamental questions I posed above is: has he correctly identified the *summum bonum*? To answer this, we must briefly consider his argument for that identification. The argument proceeds by elimination. Monius offers 3 candidates to be the fundamental and supreme Good, claiming that these are the “only initially plausible candidates” for that office (12). He considers two construals of each candidate and rules out all but one. The one left standing a construal that takes the fundamental and supreme Good to be “the comprehensive understanding of (the form of) Being itself” (15).

Why, however, is such understanding even an “initially plausible candidate” for the supreme and final good? If ‘Being’ refers to the totality of existence, I am happy to grant at least some initial plausibility. Surely it would be a mighty good thing to have comprehensive understanding of all there is.

If ‘Being’ refers simply to the property of existing, however, then I see no initial plausibility whatsoever in the suggestion that a comprehensive understanding of this property might be the supreme and final good. The property of existing is one property among infinitely many other properties, and there are infinitely many things that are not properties to consider as well. Gaining a comprehensive understanding of *any* property is no doubt a good thing. But I see no basis whatsoever for the suggestion that understanding *this* particular property might be “the supreme and final good.” At any rate, if Monius does intend the

property-interpretation, he needs to motivate his choice of “initially plausible candidates.”

My charge is that Monius equivocates between treating the relation between Being itself and individual beings as the relation between a whole and its parts, on the one hand, and as the relation between a property and its instances, on the other. I see no remotely plausible way of denying that these are numerically *distinct* relations. Monius might argue, however, that the property-instance relation is a *species* of whole-part relation, and hence that there is nothing amiss about treating the relation between Being and individual beings as a relation of both sorts. I turn now to assess this view of universals.

**C. The Bundle Theory of Universals.** Recall: my alternator is a part of my car, but my car is not a property; so the proposition that X is a part of Y does not entail that X is an instance of (the property) Y. However, it might be argued that the property of being an alternator is a whole consisting of all actual alternators, so the proposition that X is an instance of the property Y *does* entail that X is a part of Y.

Let’s call this the “bundle conception” of universals: it identifies a universal with the bundle of its instances. One problem with this conception is that it seems plainly inconsistent with Monius’s claim that “The nature or intrinsic character of a particular is just a conjunction of universals” (8). Now, conjunction is in the first instance a logical notion, and it is hard to see in what way a pencil is a logical conjunction. The only sense I can give to Monius’s claim is that a pencil is a bundle of universals—those universals that it instantiates—so that universals are its ultimate constituents. This view faces formidable and familiar difficulties, one of which I have already mentioned, but the only point I make here is that it seems irreconcilable with the suggestion under consideration, which is that a universal is a whole with its instances as parts.

Consider a yellow pencil. If the pencil has as parts those universals that it instantiates, then the universal *yellow* (or, to be clearer, the property of being yellow) is a part of the pencil. Furthermore, it is a *proper* part: the pencil obviously has other parts as well. Now suppose that the property of being yellow is a whole with its instances as parts. Since there are yellow things besides our pencil, it follows that the pencil is a proper part of the universal *yellow*. Now if A is a proper part of B and B is a proper part of C, it follows that A is not identical with C. (It may follow that A is a proper part of C, though this is disputable; the non-identity claim is enough for present purposes, though, and it is not disputable.) Hence if we conjoin Monius’s claim about the nature of particulars—on the only interpretation that I find intelligible—with the view that universals have their instances as parts and obvious truths about the pencil, we deduce the absurd

conclusion that the universal *yellow* is not identical with itself.

Although his claim about the nature of particulars—that they are just “conjunctions” of universals—plays a role in his argument, it is not an essential role and could be scrapped without undue harm. Since I think Monius’s best hope for success lies in maintaining the view that the universal-instance relation is a species of whole-part relation, I will proceed on the assumption that we may safely ignore the bundle theory of particulars.

The bundle theory of *universals*, on the other hand, is at least consonant with Monius’s several offhand mentions of “contingent universals.” A contingent universal, he says, is one whose existence is “not deducible from the necessary structure of Being” (4). It is also supposed to be one that might not have existed: “If there were no plastic things then the universal that is the *property* of being made of plastic would not have been” (26). This latter claim accords nicely with our suggestion that the relation between a universal and its instances is a kind of whole-part relation. The property of being made of plastic is *composed*, on this suggestion, of all the things that are made of plastic. Were there no such things, there would be no property, for (we assume) while a property may not have this or that part essentially, it cannot exist without any parts at all.

Unfortunately, the bundle conception of universals is unsustainable, both in its own right and especially for Monius. It is at odds not just with his bundle conception of particulars but also with many other things he says about universals. For example, he says that it lies “in the very nature” of the universal Weighing One Gram that it weighs nothing. But if the universal is a whole whose parts are its instances, then it is composed of parts weighing one gram each. How could something composed of parts, each of which weighs one gram, itself weigh nothing?

The bundle conception of universals is unsustainable, too, because coupled with the thesis that there are contingent beings, it entails that there are contingent universals, and the notion of contingent universals is (I will argue) indefensible. It violates the logical intuition that is the primary motivation for accepting universals in the first place. Monius asserts the existence of contingent universals without any argument. I will show why argument is needed.

**D. Contingent Universals.** Why believe in universals at all? A universal is a property (possibly relational) that could be multiply instantiated. One reason to believe in such properties is that there are red birds and red bricks. Monius puts it this way:

What is it for many things to have something in common? It is for them to be of a kind, or equivalently, for there to be some universal

which they each instantiate. (23)

Now, “having in common” is sometimes a matter of property in the legal rather than the metaphysical sense of ‘property’. My wife and I have a car in common, but our car is not a universal that we both instantiate. This is not to deny Monius’s point, with which I concur, but to point out its proper force. Suppose we say that we should believe that there is such a thing as the property of being red *because* there is something that certain birds and certain bricks “have in common.” In so saying, we commit an obvious inferential error unless we stipulate that we use ‘have in common’ as synonymous with ‘instantiate in common’. This stipulation, however, makes the inference obviously question-begging. To say that there is something that certain birds and certain bricks *instantiate* in common is obviously to presuppose the existence of that which they instantiate. We need not shy away from this implication. The existence of properties is properly seen as an utterly trivial matter. The proposition expressed by the sentence ‘there are red birds and red bricks’ is just *the very same* proposition as that expressed by the sentence ‘there are birds and bricks that are instances of the property of being red’. There is no question of *inference* here, merely one of understanding.

Monius does not even address nominalist objections to this motivation for countenancing properties, and for this omission I applaud him. Nominalism is a non-starter, in my view, and Monius has the right ontological attitude. But he does not hew to it consistently.

Consider the claim that “there are no witches.” I assume this true. (If you disagree, play along or substitute your own suitable example of a true non-existence claim.) I also take it to be trivially synonymous with the claim that “the property of being a witch has no instances.” (It surely does not mean, absurdly, that “there are witches that have the property of non-existence.”) So far as I can see, if you resist this, then you should equally resist Monius’s invocation of universals. My invocation of the property of being a witch and his invocation of the property of being white have a common motivation, namely, seeing the trivial synonymy of certain sentences that refer to properties explicitly with others that do so only implicitly.

So from the truth of the claim that there are no witches, it follows *trivially* that there is such a thing as the property of being a witch. Yet this property is a universal with no instances. Hence, given Monius’s suggestion about contingent universals, this property ought not exist at all; and clearly it could not exist if the bundle theory of universals were true.

Furthermore, it is a trivial necessary truth that either there are witches or there aren’t. It is a trivial necessary truth that if witches exist, then the property of being a witch exists. And it is a trivial necessary truth that if witches don’t exist, then the

property of being a witch exists. Hence it is a necessary truth—and, I would say, a trivial one, even though what follows from trivialities is not always trivial—that the property of being a witch exists.

Obviously there is nothing peculiar about the specific property I have chosen; the same line may be run with any property, or any universal, at all. Hence *there are no contingent universals*.

This argument seems to me irresistible. But since, as we shall see, Monius's account of the structure of Being seems to require the existence of contingent universals, Monius must find some way to resist it.

If he succeeds, however, then this will be bad news for his claim that Being exists necessarily. For if it is possible for any universal to exist contingently, then Monius's argument that Being exists necessarily fails. To this point I now turn.

#### **E. The Necessity of Being and the Contingency of other Universals.**

Although Monius needs contingent universals, he also needs one prominent necessary one: Being itself. Now, I think he is quite right that Being, construed as the property of existing, exists necessarily. But his argument for this thesis is unsound, and the only way to repair it will ensure the necessity of all universals.

Monius's argument for the necessity of Being is this (23):

Being holds of itself. Which is just to say: Being exists. [Note the assumption of trivial synonymy—a correct assumption, but one that makes trouble for contingent universals.] But it lies in the very nature of a universal to hold of itself, if it does so hold. So it lies in the very nature of Being that it holds of itself. So it lies in the very nature of Being that it exists. This is just to say that Being exists necessarily.

There is both a questionable claim and a questionable inference here. The claim here is that “it lies in the very nature of a universal to hold of itself, if it does so hold;” the inference is from the claim that “it lies in the very nature of Being that it exists” to the claim that “Being exists necessarily.”

Consider the property “Weighing One Gram.” Although I have already disposed of the bundle theory of universals, it is worth a brief reconsideration to illustrate the problems with Monius's argument. If that theory were true, then it seems that it would not lie in the nature of this property whether it holds of itself. It is possible, I suppose, that there could have been just one thing weighing one gram. In this case, given the bundle theory of universals, the property of Weighing One Gram would have applied to itself. But in fact there are many things with this property, so (given the bundle theory) the property weighs much more than one gram.

Monius says it weighs nothing, so he must (as I have argued) reject the bundle theory. But one need not endorse the bundle theory to see that whether a universal holds of itself need not be derivable from its very nature. Consider the property of *being a property discussed by Monius*. This is a property that Monius does not, in fact, discuss (at least in *Coming to Understanding*). Consequently it does not hold of itself: it is not a property that is discussed by Monius. But it could well have been. Monius might well have reflected on the various properties he discusses and explicitly noted that they share the property of being discussed by him. Had he done so, the property of being discussed by Monius *would* have held of itself.

Monius says (23):

Is this fact of not applying to itself a grace of fortune conferred on the universal by the ways in which other things stand? No. It would be absurd to explain this in terms of how other things stand. It lies in the very nature of a universal that fails to hold of itself that it fails to hold of itself.

Monius's alleged "absurdity" is plain fact, as the example of *being a property discussed by Monius* shows. I am not arguing that whether a universal is self-applicable is *never* a matter of the very nature of that universal. In some cases, like that of *being a property*, it clearly is. But just as clearly it is not *always* such a matter, contrary to Monius's assumption.

So much for the claim; now for the inference. Again, let's start with the bundle theory for clarity's sake. Consider the property of *being made of plastic*. Now, if the bundle theory were true, this property *would* apply to itself (since if every part of a whole is made of plastic, the whole itself is made of plastic), and it would apply by its very nature. But even though it would lie in the nature of the property that it applies to itself, yet it would not be a necessary truth that the property applies to itself. For while the property could not exist without holding of itself, yet it could have failed to exist: there might have been no plastic things, and so (given the bundle view) no property of *being made of plastic*.

Once again the bundle theory of universals permits a vivid illustration of a problem that is not tied to that theory. Monius seems to overlook the distinction between *de dicto* and *de re* modal claims. To say "X has property F necessarily" can mean either that *it is impossible for X to exist without having property F* or else that *it is a necessary truth that X (exists and) has property F*. Plymouth Rock is necessarily a material object: it could not exist without being material. But it is not a necessary *truth* that Plymouth Rock is a material object. Were this a necessary truth, it would be a necessary truth that Plymouth Rock exists, since nothing can be a material object without existing; but it is not a necessary truth that Plymouth

Rock exists. (For heuristic purposes only: contrast the claim that “in every possible world in which Plymouth Rock exists, it is material” with the claim that “in every possible world, Plymouth Rock exists and is material.” Granting the fiction of non-actual possible worlds for the sake of the illustration, the first claim is true but the second false.)

Here is the upshot of this ambiguity. Grant that it lies “in the very nature” of Being that it applies to itself. It follows that Being exists necessarily *de re*, but not that it exists necessarily *de dicto*. What follows, in other words, is the triviality that Being could not exist without existing; what does not follow is that Being could not fail to exist. Yet it is clearly the latter claim that Monius needs.

As I have indicated, there is good reason to accept the necessary existence of every property. But Monius's argument for the necessary existence of the property of existing is unsound. If the reasons I have given are rejected, as Monius must do to retain contingent universals, then Monius is left without any basis for his first Axiom that Being is a necessary universal.

**F. The Totality Interpretation of 'Being'.** To recapitulate: Monius equivocates on ‘Being’. Sometimes he uses it to refer to the whole of reality—to everything that exists. I will refer to this usage as ‘the totality interpretation’. Sometimes he uses it to refer to one particular existent, the property of existing, in the swarm of existents that constitute the whole of reality. I will call this usage ‘the property interpretation’. I have considered whether Monius might escape the charge of equivocation by invoking the bundle conception of universals and concluded that he cannot. Since I do not see how else he might escape it, I proceed on the assumption that the equivocation is real.

How does Monius’s elucidation of “the structure of Being” fare on the totality interpretation? Not well. For Monius’s early, crucial steps in articulating that structure make no sense on the totality interpretation. He says (24) that “the two fundamental ways in which beings can be” are “Universal Being” and “Particular Being.” Now, it is certainly intelligible, and compatible with the totality interpretation of ‘Being’, to take “Universal Being” as referring to the totality of universals and ‘Particular Being’ as referring to the totality of particulars. Leave aside the point already mentioned that this distinction cannot be exhaustive, given Monius’s various characterizations of it. Of more immediate concern for the totality interpretation is that this usage renders utterly mysterious Monius’s claim that “Universal Being” *is a universal* and also that it *applies* to itself. For the totality of universals is not a universal, nor does it apply to anything.

It is not clear what it means for a totality of universals to apply at all. But suppose we stipulate for clarity’s sake that a totality applies by virtue of each of its members applying. Still the totality of universals could apply to nothing. For that

totality includes the universals *being wholly white* and *being non-wholly-white*, and there is nothing to which these could both apply.

In any case, it is clear enough that despite Monius's characterization of Being as "the whole of reality," the entire thrust of his later discussion requires us to reject the totality interpretation in favor of the property interpretation. To this I now turn.

**G. The Property Interpretation of 'Being' and Monius's Axioms.** I assume henceforth that 'Being' means just *the property of existing*. I can attach no other clear sense to it; I hope my discussion heretofore explains why.

I have already discussed at length some foundational aspects of Monius's account of the structure of Being. There is much more to that account, more than I can survey here. After articulating in part, but in detail, what he takes the structure of Being to be, Monius pauses to make explicit four principles—Axioms—that have guided this articulation. I will now briefly bring my discussion of the foundational aspects of Monius's system to bear on the first three of these Axioms, reserving mention of the fourth for my concluding remarks.

**Axiom 1.** Consider once again Monius's

Axiom 1: (Axiom of Unity) Being itself is... the most inclusive of all the necessary universals that are the Categories.

The Categories are simply "Kinds of Being," according to Monius (18). These are supposed to be necessary universals. Now, I have already argued that Monius's allegiance to contingent universals is not only unsupported but insupportable. Given, then, that all universals exist necessarily, is it true that Being—the property of existing—is the most inclusive?

To say that property F is more inclusive than property G is presumably to say that necessarily, F applies to whatever G applies to and that possibly, F applies to more than G applies to. Now, there is certainly no property *more* inclusive than the property of existing; this is a trivial point. But there are infinitely many properties *equally* inclusive. Consider the property of *being non-identical with the rational square root of 2*. Necessarily, everything that exists—including this property itself—has this property. Even the property of existing instantiates it. Yet it is a distinct property from the property of existing. Hence the property of existing is not the *most* inclusive of all necessary universals. Axiom 1 is false.

**Axiom 2.** Consider next

Axiom 2: (Axiom of Dichotomy) Every Category or necessary universal has an immediate Sub-Category, which stands to it as its

form, and another immediate Sub-Category, which stands to it as its matter. (41)

What does Monius mean by the “form” of a universal? He says (25):

Let us say that the form of a thing—any thing, equivalently, any being—is that aspect of a thing that is properly cited in response to the question: What is it to be this thing? So if we ask, ‘What is it to be Being?’ we ask after the form of Being.

The most general account of what it is to be Being is this: to be a thing that is a universal. So Universal Being can be thought of as the most general form of Being.

First, a terminological point. Monius’s use of ‘form’ strikes me as badly misleading. Form is literally a matter of *shape*, and a thing that is non-spatial (such as Being) can have no shape. If you ask, “What is the form of this pencil?” I will answer that it is a long, thin solid with a hexagonal cross-section, tapering to a point at one end. I’m not sure *what* answer I would give to the question, “What is it to be this pencil?” But I’m pretty sure it would *not* be the answer in terms of its form. Metaphorical or analogical uses of ‘form’ are certainly admissible, but Monius would do well to explain what exactly the metaphor or analogy is that he has in mind.<sup>7</sup>

What *is* it, though, to be Being? That is, what is it to be the property of existing? Monius answers that “the most general account” is that it is “to be a thing that is a universal.” But this seems *less* general than an account that says that it is *to be a thing that is a property*, since not all properties are universals. This in turn seems less general than an account according to which what it is to be Being is simply *to be a thing*. This answer, of course, could equally well be given in answer to *any* question of the form, “What is it to be X?” That is precisely why it is the *most general* answer.

It might be replied that such an answer is *so* general that it does not answer the question, “What is it to be *this* thing?” Perhaps we are supposed to understand Monius as requiring an answer that somehow serves to individuate the thing in

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<sup>7</sup> Monius does suggest later (31) that the form of a thing is “a unified aggregate of powers, something potentially in common to many things.” He does not explain, however, how this account is to be reconciled with the apparently quite different and more fundamental account of form I have mentioned; nor does he make clear what “powers” are, nor what “unifies” an aggregate of them.

question, to allow us to distinguish between it and everything else. But in that case, his proposed answer is likewise far too general. For while it is true that to be the property of existing is to be a universal, it is also true that to be the property of being red is to be a universal. So if we say that “what it is to be X” is to be a thing that is universal, we do not thereby identify X with the property of existing.

Thus I do not understand Monius’s claim that Universal Being is the form of Being. The property of existing is a universal, to be sure—as is the property of being a particular, of being a universal, of being red, and so on. But in all of these cases the *most* general answer to the question, “What is it to be this thing?” is simply that it is to be a thing.<sup>8</sup> And in each case there is no obvious candidate for a less general answer that serves to individuate the universal in question beyond the trivial one, “It is to be this thing!”

Thus Axiom 2 is either false or unintelligible. If we take literally the claim that the “form” of a thing is that which provides the *most general* answer to the question, “What is it to be Being?” then Axiom 2 is false. But if we do not take it literally, then we must take it some other way. And as I have indicated, it is simply unclear what that other way might be.

**Axiom 3.** It might seem that we find some guidance in identifying the form of a universal in Monius’s

Axiom 3 (Axiom of Self-application): Self-application is the hallmark of the formal Sub-Category of a given Category. (41)

Alas, the appearance deceives. For as I have said, the most general answer to the question “What is it to be Being?” is just that it is to be a thing. But the property of being a thing is self-applicable, since properties are things.

The requirement that the form of a given Category must be a self-applicable property does restrict somewhat the range of candidates for the office of form. It does not, however, restrict it nearly enough: there remain too many self-applicable properties that might reasonably be taken to provide general answers to the question, “What is it to be the property of existing?” The properties of *being a thing* and of *being a property* are, again, obvious examples. Axiom 3 may be true, for all I know, in the sense that self-applicability is a necessary condition on being the “form of a Category.” But since it is fundamentally unclear how we are to

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<sup>8</sup> At least this is *one* of the most general answers. It is a little unclear whether there is a unique most general answer. The claim that “to be Being is to be either a pencil or a non-pencil” seems just as general as the claim that “to be Being is to be a thing.” So perhaps there is *nothing* that is *the* most general answer to Monius’s question. In that case, given his definition, Being has no form and Axiom 2 is false.

determine the form of a Category, knowing merely that it must meet this necessary condition does not give Axiom 3 any serious role to play.

#### IV. Conclusion.

Recall the large structure of *Coming to Understanding*. In the first part, Monius argues that the coming to understanding of what he calls “the structure of Being” is the ultimate good and that it thereby explains the existence of contingent being. In the second he offers an account of that “structure” that is supposed to provide us with the understanding for whose sake contingent being exists. Despite Monius’s admirably lucid prose style, serious substantial unclarity besets both parts of this project; so I have argued. The notion of teleological explanation that is central to Monius’s explanatory project remains mysterious. The notions of *Being, universal*, and *particular* that form the underpinnings of the second part are equivocal at best and inconsistent at worse.

I omit discussion of many details of Monius’s elaborate account of the structure of Being. The details I omit are elements of the superstructure of Monius’s system. I have attacked the system’s foundation. If my worries about the foundations are right, the superstructure must collapse, and it would be otiose to focus on it.

My complaints focus ultimately, as I say, on matters of clarity. No author should find such complaints wholly disheartening, for clarity is always improvable. I have indicated where clarification is needed. Whether it would yield cogency for Monius’s arguments I cannot foretell. I admit to some skepticism on this score. But it is skepticism tinged with regret, for two reasons. First, I find Monius’s general philosophical outlook both bracing and congenial. His willingness to countenance “speculative metaphysics” and to attack large problems, his affirmation of the *a priori* method in modal epistemology, his rejection of positivism and its contemporary descendants—all of these virtues are on display in *Coming to Understanding*. Second, it would be immensely satisfying if his argument could be repaired. There is no denying the attraction of the view that an impersonal good explains the existence of all contingent existence. Vindicating this view would be an impressive accomplishment.

## Review 8: Gideon Rosen

### Part 1

#### I. Introduction

What may be the most remarkable feature of *Coming to Understanding* is not emphasized by its author. The work itself is an essay in speculative metaphysics, broadly in the tradition inaugurated by the first Ammonius. It is addressed to the question, 'Why do contingent beings exist?' and the answer it provides is teleological: Contingent beings exist in order that the structure of Being itself may be understood. The work defends this general proposal against various alternatives. But it also includes, in its second half, a detailed account of the structure of Being. And this means that if the overall view is correct, *the work itself constitutes (at least in part) that for the sake of which the cosmos exists*. This is reminiscent of nothing so much as Hegel's remarkable suggestion that the history of the world is the coming to self-consciousness of Spirit, which reaches its first fruition in Hegel's own work. But as I say, the author of *Coming to Understanding* does not emphasize this reflexive feature of his text. What we have instead is a closely argued and altogether clear-headed attempt to describe a metaphysical framework in which certain 'why'-questions which must otherwise remain intractable may be answered. I do not accept the framework, for reasons that will emerge below. But one can only admire the intelligence and the clarity with which it has been proposed.

#### II. An argument for the necessary existence of Being.

The author's question, 'Why do contingent beings exist?' is a special case of the more fundamental-seeming question, 'Why is there something rather than nothing?' But in the author's view the more specific question is more urgent. Why? The author is convinced that there might have been no contingent beings. Hence the question, 'Why are there any contingent beings at all?' is a question about why one possibility rather than another has been realized. The author is equally convinced, however, that a world in which nothing whatsoever exists is an impossibility. So in asking why there is something rather than nothing, we are not asking for an explanation of a contingent fact. There is something because there could not have failed to be something. To say this, and to make it plausible, is to answer the familiar question while leaving the author's more specific question unaddressed.

The author presents an ingenious argument for the thesis that there could not have been nothing at all (pp. 23-24), and while it is not the author's main concern, it may be useful to review the case in some detail. We begin from an incontrovertible premise:

- (1) Some things exist.

These might be ordinary contingent things: tables, and the like. So let's consider these things. All of them exist. This is something they have in common. So

- (2) Being (Existence) is predicated of everything that exists.

Being, here, is a universal: a property which ordinary particulars and other universals may exemplify. But if Being is predicated of ordinary things, it follows that

- (3) Being itself exists.

But to say that Being exists is just to say that

- (4) Being is predicated of itself.

The author then proposes a general principle governing self-predication:

- (5) If a universal F is predicated of itself, then it lies in the nature of F to be F.

But

- (6) If it lies in the nature of a thing to possess a property, then it is a necessary truth that that it possesses that property.

So from (5) and (6) we have (7):

- (7) If a universal F is predicated of itself then it is necessary that F is F.

From (4) and (7) we may then conclude that

- (8) It is necessary that Being exist.

Being itself—the universal common to everything that exists—is thus a necessary being. So if you want to know why there is something rather than nothing, the answer is: 'There could not have been nothing. Even if no contingent things had existed, there would still have been such a thing as Being itself.'

### III. A problem for the argument.

The argument is ingenious. But it is also tendentious. Consider the transition from (1) to (2)† — as the author puts it, "Each thing that is, is a being. But then all things that are have Being in common." (p.23) This is apparently an application of the following familiar principle:

(NC) If  $X$  is  $F$ , then there exists a universal  $F$  (or  $F$ -ness) that is predicated of  $X$ .

Some philosophers, of course, deny the existence of universals across the board. As Quine famously says,

The words 'houses', 'roses' and 'sunsets' are true of sundry individual entities which are houses and roses and sunsets, and the word 'red' or 'red object' is true of each sundry individual entities which are red houses, red roses, red sunsets; but there is not, in addition, any entity whatever, individual or otherwise, which is named by the word 'redness' nor, for that matter, by the word 'househood', 'rosehood', 'sunsethood'.

But let us set this radical nominalism to one side and concede that certain predicates and abstract nouns pick out genuine universals. The trouble with NC is not that it entails the existence of universals. The trouble is that NC is inconsistent and therefore certainly false.

This may be brought out by an application of the reasoning that leads to Russell's paradox. If the original argument is sound, some universals are predicated of themselves. But this is clearly not true in general. To see this, we may note that not everything is a universal. Some things are particular. We therefore have, as an instance of NC

(a) If  $A$  is a particular, then Particularity is predicated of  $A$ .

But,

(b) Particularity is a universal, not a particular.

So,

(c) Particularity is not predicated of itself.

We now note that [c] is a statement of the form 'X is F'. We may therefore apply (NC) again to arrive at (d):

(d) The universal, Non-Self-Predication (NSP) is predicated of Particularity.

If every meaningful predicate that applies to anything corresponds to a universal, then NSP must exist. It is what the various non-self-predicating universals (particularity, weighs one pound, redness) have in common.

Now, NSP is defined by the following formula.

(e) F exemplifies NSP iff F does not exemplify F.

But given the existence of NSP, one instance of (e) is (f):

(f) NSP exemplifies NSP iff NSP does not exemplify NSP.

But (f) is a contradiction. It is a statement of the form ' $P$  if and only if not- $P$ '. The derivation is clearly valid. The only way to resist the contradiction is to reject NC.

The paradox was originally directed, not at the theory of properties or universals, but at the mathematical theory of sets (or extensions). In developing a system of logic adequate for mathematics, Frege had assumed (in effect) that

For every predicate  $F$ , there exists a set  $\alpha$  such that  $X$  is an element of  $\alpha$  if and only if  $X$  is  $F$ .

Russell's paradox establishes that this principle—sometimes called the Naïve Comprehension Principle—entails a contradiction. Within mathematics the dominant response has not been to reject the very idea of a set, but rather to restrict the principle by conceding that some predicates do not correspond to sets. There are several competing strategies for effecting this restriction. But every compelling such strategy has the consequence that the existence predicate does not

correspond to a set. Many things exist: tables, numbers. But in modern set theory there is no such thing as the set of all existent things.

The analogous retrenchment in the theory of universals would be to concede that there is no universal common to everything that exists, or in other words, that there is no such thing as Being. Needless to say, this concession would be devastating to the author's project. And I am not suggesting that the inconsistency of NC requires it. The inconsistency of NC forces us to recognize that some predicates fail to correspond to universals, and in particular, that '... does not participate in itself' is such a predicate. This is not a fatal concession by any means. Every modern theory of universals incorporates it. The point is rather that the author must defend his existential assumptions by appeal to a principle of comprehension analogous to NC but somehow suitably restricted. How does he know that Being and the other universals he discusses exist? It's not enough to observe that some things exist. For all we know, this is consistent with the hypothesis that while there may be universals of various sorts, there is no universal that is predicated of everything.

*Coming to Understanding* operates with an unarticulated background theory of universals. That theory is apparently committed to NC and is therefore inconsistent. The argument may well be salvageable. But we can't be sure until a new background framework has been supplied. *Even apart from this difficulty, it seems to me that the work would be substantially improved by the incorporation of a fully explicit theory of universals.*

#### **IV. Further difficulties.**

The argument for the necessary existence of Being is tendentious in certain other respects. Let me briefly canvas them.

- (i) The author assumes that self-predication cannot be adventitious. If F is F then it lies in the nature of F to be F (p.24). Now this may be true, but it is not obvious. Consider property E: being one of Ed's favorite universals. E is a property of universals. It might belong to red. It might belong to humanity. But it might also belong to E itself. Why shouldn't E be one of Ed's favorite properties? In that case, E would be predicated of itself. But it is implausible that it should lie in the nature of E to be self-predicated. Intuitively, it is a contingent matter whether E is one of Ed's favorite properties.
- (ii) The author assumes (premise (5)) that if it lies in the nature of X to be F, then X is necessarily F. But this principle may be read in either of

two ways, corresponding to two readings of 'X is necessarily F'. When we say that Socrates is necessarily human we might mean either that

(a) Socrates is human in every possible world,

Or that

(b) Socrates is human in every possible world in which he exists.

Corresponding to the first reading, we have the principle:

(5a) If it lies in the nature of  $X$  to be  $F$ , then  $X$  is  $F$  in every possible world.

Corresponding to the second we have the weaker principle:

(5b) If it lies in the nature of  $X$  to be  $F$ , then  $X$  is  $F$  in every possible world in which  $X$  exists.

Now it can be hard to tell the difference between these two principles, since it can be hard to know whether the proposition Socrates is human is true at all worlds, or just at worlds at which Socrates exists. So it is unclear whether 'intuition' favors (5a) or (5b). The author clearly needs (5a). Given (5b) we would be entitled only to the trivial conclusion that Being is predicated of itself in every world in which Being exists. The author must therefore make a case for the stronger reading of (5). I do not suggest that this cannot be done. But it is a lacuna in the argument.

## V. The critique of natural theology

Let's concede that Being is a necessarily existing universal, and hence that the familiar question, "Why is there something and not nothing?" does not arise. The urgent cosmological question is then, "Why are there contingent beings?" or in other words, "Why is the universal Contingent Being exemplified?"

The traditional answer from natural theology is that contingent beings exist because God, a necessarily existing particular, chooses to create them. The author rejects this explanation on basis of a series of arguments.

The natural theologian's account comes in three main forms. (The author only discusses two of them. Whether the omission is significant is unclear to me.)

The necessitarian variant. Not only does God exist necessarily. His creative act in all its detail is also necessary. It is necessary that God create exactly the world he does.

The libertarian variant. God exists necessarily, but his creative act is altogether contingent. Not only might he have created a different world. He might have chosen not to create a world at all.

The semi-libertarian variant. It is necessary that God create some world or other. (Perhaps it lies in God's nature to be a creative being.) But it is a contingent matter which world he creates. In particular, each ordinary thing is such that it might not have existed.

The author rejects the necessitarian variant—a form of "Spinozism"—on the ground that it flies in the face of "the original intuition of contingency". We have a firm intuition that ordinary objects—tables, people —†are contingent beings. Practical life is predicated, in part, on the supposition that what happens is contingent upon our own contingent choices. Of course proponents of the necessitarian variant regard these intuitions as illusory. So it is perhaps insufficient in engaging the Spinozist simply to insist that we find ourselves with the firm intuition that he is mistaken. Nonetheless I share the intuition and thus agree with the author that we are justified in rejecting necessitarianism until some very strong argument has been offered on its behalf.

Does this objection also apply to the semi-libertarian variant? It depends on how we characterize the fundamental 'intuition of contingency'. If it is the intuition that each ordinary particular is a contingent thing, then there is no problem: the semi-libertarian view incorporates this principle. On the other hand it might be said that we have a direct intuition that there might have been no contingent things whatsoever. In that case, the semi-libertarian view is counter-intuitive. But it is not clear to me that we have this intuition. When we attempt to 'picture' a world bereft of contingent things, what do we come up with? A world containing nothing but a black expanse of empty space? But then we may ask, 'What about that space?' It is itself a thing of a certain sort. Its parts are presumably contingent. There might have been more or less of it. Indeed for all I know there might have been not this space, but a different space (with a different structure). If it is nonetheless the case that every world we can conceive is a spatial world, then it is not clear to me that we have the 'intuition' that there might

have been no contingent things whatsoever. In that case —†and I concede that the issue is obscure†— the intuitive objection to necessitarianism does not touch semi-libertarianism. (My main reason for mentioning this semi-libertarian view is to invite the author to clarify his account of the 'fundamental intuition of contingency'.)

Libertarian Theism and its semi-libertarian cousin themselves come in two versions.

Teleological (semi) libertarianism: God's choice to create this world is contingent, but it is nonetheless explicable. He chooses to create this world for the sake of some great Good.

Existentialist (semi) libertarianism: God's choice to create this world is an *acte gratuit* for which no account can be given.

The author considers and rejects Teleological Libertarianism on two main grounds. The first is that once the explanatory appeal to the Good is admitted the appeal to God's agency becomes otiose.

Theism's fundamental explanation embodies the idea that some things happen because they should. Once that is admitted, the appeal to divine intention drops out as no longer fundamental. The sheer appeal to a good to be realized can itself be explanatory. Why then suppose that such end-invoking explanation must be mediated by an intention? A good, such as coming to understanding, can account for the existence of a process directed at that good. ... Theism's mistake was to personify this explanation. (p.7)

But it seems to me that this is to underestimate the motivation for theism. We understand well enough how, in certain cases, the fact that *S* is a good state of affairs may explain why *S* obtains. When there is an agent who realizes that *S* is good and forms the intention to bring it about, the causal 'force' of the evaluative fact is perfectly intelligible: it is mediated by the efficient causal efficacy of the agent. The author wishes us to consider an alternative sort of teleological explanation: one in which the fact that *S* is good—*all by itself, without the mediating power of an agent*—explains why *S* obtains. This is, to say the least, an unfamiliar idea. It corresponds to nothing in ordinary experience or in science, as I shall argue below (βVI). The teleological theist's account of the existence of the contingent world thus has the enormous advantage of exploiting a familiar and incontrovertibly genuine explanatory pattern. The author's preferred account, by

contrast, requires a novel form of causation attested nowhere else in nature. Theism is thick with mysteries. But it strikes me as mistaken to insist that once we have embraced the teleological version of the view, the appeal to divine agency "drops out as no longer fundamental".

The author's second objection to libertarian Theism is (if successful) completely decisive. The claim is that any view that casts a particular such as God (as opposed to a universal) in the role of fundamental explanatory principle must inevitably collapse into Spinozism. The argument is remarkable:

The ultimate explanation of the existence of contingent beings must appeal to something unique of its kind. For if the thing appealed to had kindmates [...] then the question would arise as to why the thing in question†— rather than these other things of the same sort— accounts for the existence of contingent beings. Noticing this, the old geniuses of natural theology famously insisted that God was necessarily unique of his kind: necessarily, there is no god but God. What has not been widely noticed is that this face saving claim of Theism is actually inconsistent with our fundamental intuition of the contingency of finite particulars. [...]

According to Theism, God is a necessary and perfect particular, who has a capacity to form and act out of a creative intention. Since the world [...] is, on pain of Spinozism, contingent, this creative capacity could have remained unrealized. But if an instance of the kind Necessary and Perfect Particular could come with a certain capacity realized and also without that capacity realized then two instances of the kind Necessary and Perfect Particular seem conceivable, hence possible, hence *actual* by the nature of the kind in question. For to be a Necessary being is to be such that your possibility implies your actual existence. So we have a reductio of Theism: If there is one God, who created the world [...] then there is the Other God, who did not. (Notice that what is appealed to in the supposition is the co-possibility of the two Gods. They are co-possible because the full intrinsic description of the one does not exclude the full intrinsic description of the other.) (pp. 7-8)

Is this a cogent argument? I don't think so. Before turning to the meat of it, let me make one preliminary comment. The author takes it for granted that Theism must affirm the uniqueness of the deity. That is of course the orthodox view nowadays. But for the purposes of natural theology, it strikes me as incidental. Suppose the

Theist were to say that for all he knows there are seven gods† — all necessary and perfect† — three of whom collaborated in the creation of the world, the rest of whom did nothing. What is the objection to this view? The author's remarks in the first paragraph cited above suggest that he would regard it as objectionable because 'the question would then arise' why the world was created by gods A, B and C rather than by the others. Now it is clearly a contingent matter (on the view in question) that these gods and not the others are responsible for the world. Moreover, it is an *inexplicable* contingent fact. But why is it an objection to the view that it leaves this contingent fact unexplained? My impression is that the author regards this as objectionable because he accepts something like the following general principle:

*An adequate account of the existence of the contingent world must leave no contingent fact whatsoever unexplained.*

But it seems to me that this principle is not only strong and undermotivated: it is unsatisfiable. In particular, the author's own account in terms of impersonal teleology must leave some contingent fact unexplained, as I suggest below. But if this is so, then it is unclear why Theism must accept the author's premise that the *archÊ* — whatever it is — † must be unique of its kind.

But suppose we grant this (conventional) assumption. Is the Theist then in trouble? It may help to recast the argument in terms of the idiom of possible worlds, with the understanding that for present purposes this is nothing more than a heuristic fiction. We are given that

- In the actual world, @, a necessary and perfect particular, namely God, creates the contingent world.
- In another world, W, a necessary and perfect particular — call him G\*† — does not create the contingent world.
- Necessarily, in each world there is exactly one necessary and perfect particular.

These assumptions together are supposed to entail a contradiction. How does the derivation go? Since both God and G\* are necessary, it follows that both are actual. But that is perfectly consistent with the Theist's thought that G\* just is God. He is God as he would have been had God omitted to create the world. The author appears to want to say that since G\* must exist in the actual world, and since G\* does not create the world, then G\* must be distinct from God, who does

create the world. But this is clearly fallacious. We may grant that the  $G^*$  who exists in  $W$ , must also exist in actuality without granting that in actuality  $G^*$  possesses every property he possesses in  $W$ .

I do not claim that the author is guilty of this fallacious reasoning. The real argument is embedded in the crucial closing parenthesis. The crucial claim is that an agents meeting the descriptions of God and  $G^*$  are not only severally possible, but also co-possible. In our jargon, that is to say that there exists a possible containing two distinct necessary and perfect beings, one of whom creates the contingent world, the other of whom does nothing. From this it is supposed to follow (given the Theist's assumptions) that these two beings must exist in the actual world.

It seems to me that this line of reasoning may be challenged on two grounds. Must the Theist concede that a world containing two such beings is conceivable (and therefore possible)? The author asserts that he must, because "the full intrinsic description of the one does not exclude the full intrinsic description of the other". But is this correct? It seems plausible to me—as plausible as anything in natural theology —†that *perfection* in the relevant sense entails *uniqueness*. It is more perfect, it might be said, to be unique of one's kind than it is to admit of kindmates. This argument might be buttressed by the thought that it is more perfect to be immaterial than to be material, together with the principle (found in Aquinas) that immaterial beings are necessarily unique of their kind. But if this is right, then the supposition that *in actuality, a necessary and perfect being created the contingent world* does exclude the existence of a perfect being who did not. To put the same point another way, the supposition that two perfect beings exist is (on the present account) an impossibility. But if that is right then the 'two' Gods are either identical, or they are not co-possible after all.

The second line of resistance to this ingenious argument is more speculative. Let us drop the assumption that perfection entails uniqueness and concede that there is indeed a possible world in which two perfect divinities exist, only one of whom is creative. Since both beings are necessary, it follows that both such beings exist in this world. But does it follow that they are distinct in this world? That is, does it follow from the fact that there are two necessary divinities in  $W$  that there must be *two* necessary divinities in  $@$ ? This follows only given a certain controversial principle in modal logic:

$$x \text{ ? } y \text{ ? } M(x \text{ ? } y).$$

The principle is widely accepted; but it has sometimes been rejected on the basis of the following sort of example. Suppose that Tom and Jerry are identical twins in the actual world, and consider a world  $W$  in which the embryo from which they

derived does not undergo twinning. Call the single person who results from this embryo Q. We may now ask, "Does Tom (Jerry) exist in W?", or to drop the jargon: "Would Tom (Jerry) have existed if the embryo in question had not twinned?" If you say 'yes' then you are apparently committed to rejecting the modal principle that distinct objects are necessarily distinct. For in the envisioned world, Tom and Jerry would have been one and the same person. But if this modal principle is to be rejected, then the author's modal argument is invalid. It might be that there is a possible world in which two distinct necessary and perfect beings (call them G1 and G2) exist, even though in this world, only one such being exists, namely God. I concede, however, that this line of response is inconclusive. *The assessment of the argument must await a formal presentation in which all of the background modal assumptions are made explicit. This seems to me like a project very much worth undertaking.*

My emerging assessment is that the case against Libertarian Theism is inconclusive. In its clearest version† — setting the complex modal argument just discussed to one side—it depends two dubious claims: that the appeal to divine activity is otiose once the Good has been assigned a role in the argument, and that an adequate account of why contingent things exist must leave no contingent fact unexplained. In the remainder of this review, I would like to focus on these two principles, and so to register my deepest reservations about the author's project.

## **VI. Principles of Sufficient Reason**

Let's begin with the requirement that every contingent fact be explained. In order to focus intuitions, let us return to the view I have called 'existentialist libertarianism'. This is a version of Theism on which the existence of the contingent world is to be explained by reference to God's absolutely inexplicable creative choice. I do not for a moment suggest that this is an attractive theological position, though Descartes may have held a version of it. But is there a cogent *philosophical* objection to the view?

The view explains why the various contingent objects exist. But it obviously leaves certain contingent facts unexplained. In its fully libertarian version, it does not explain why God willed to create a world at all. In its semi-libertarian version, it does not explain why God willed to create this contingent world rather than some other. But why should this be objectionable?

I can imagine two answers. It might be objected that if one's *only* ground for positing a creative God in the first place is to explain the existence of the world, then the libertarian explanation is altogether unwarranted. One substitutes one mystery for another, without reducing wonder. If explanations must give out somewhere, as the proponent of the account is likely to insist, why not let them

give out with the existence of the contingent world itself? We are justified in 'positing' an invisible divinity only if one thereby reduces the unintelligibility of the world. The present view fails to meet this standard and is therefore unwarranted.

In my opinion, this is an excellent response to any version of Theism on which *the only* ground for supposing that God exists is that positing such a God helps us to explain some natural fact which would otherwise be inexplicable. But of course one might hold, as a Theist, that we have independent reasons for believing that God made the world. In that case, the present objection would not arise.

The second response is to insist that the view is objectionable simply because it leaves a pertinent contingent fact unexplained. But as formulated, this strikes me as a dismal objection. It is an application of a version of the principle of sufficient reason:

(PSR -) Every (contingent) fact has an explanation.

This is weaker than the certain perhaps more familiar versions of the principle, in which it is assumed not only that every fact has an explanation, but that explanation is always a matter of necessitation. The author rejects this stronger principle on the ground that it leads to Spinozism. But he (apparently) accepts the weaker version, insisting that in a teleological explanation, the explanans does not necessitate the explanandum. But what is the status of PSR -?

It is manifestly not an a priori truth of reason. There is no absurdity in the supposition that some contingent fact has no explanation whatsoever. Why did the uranium atom decay just then, rather than a second later? Why is the number of stars odd rather than even? It strikes me as not only possible but *plausible* that these questions do not have answers. There can be no general a priori demand that every fact should be explicable.

In light of these trivial-seeming counterexamples, the principle might be weakened to the claim that every *significant* or *fundamental-seeming* contingent fact must be explicable. But once again, this does not strike me as a priori. Let *L* be a fundamental law of physics. In physics one explains a law by deriving it from more fundamental laws together with boundary conditions. But since *L* is fundamental, it cannot be explained in this way. So either *L* admits of some sort of 'metaphysical' explanation or it must be regarded as inexplicable. But now it seems clear to me that we have no guarantee a priori that some sort of metaphysical explanation must be available. Even if there is a metaphysical explanation of why the universe is law-governed rather than chaotic, metaphysics need say nothing about why the fundamental law is *L* rather than something else.

In response it might be said: "Granted, we have no guarantee that every contingent fact must be explicable. But still, it is in the nature of intellectual activity to seek explanation wherever possible. If some view under consideration leaves some remarkable fact mysterious, then other things being equal, that is grounds for dissatisfaction." On this view, PSR- is not a metaphysical principle. It is a regulative principle of theorizing. The objection to existentialist Theism is not that *it cannot possibly be true because it leaves some fact unexplained*. It is rather that *it would be unreasonable to accept it since there are competing views which explain the facts it must take as brute*.

To rest the case for ambitious metaphysics on such a principle is to weaken it considerably. It is plausible that every view must leave some contingent fact unexplained. On the antimetaphysical view that is the author's unarticulated foil, the brute fact is the existence of the contingent world itself. On the existentialist Theist's view, it is the fact that God chose to make the world. And on the author's own view ... Well, more on that below. If every view is bound to be explanatorily incomplete, then the choice among them, insofar as it is governed by the regulative principle outlined above, is bound to strike us as subjective, as a matter of taste. The question will be: Which brute fact do you prefer? Is it less 'intelligible' that the existence of the contingent world should be inexplicable than that God's free choice should resist explanation? When it has come to this, the metaphysical project has lost its point.

Of course the worry would not arise if it were possible to explain every contingent fact† — to leave nothing brute. The view that manages this, if it is unique, is clearly (in some sense) preferable to the alternatives. But is it so much as coherent to maintain that every (fundamental) contingent fact admits of explanation?

Let's consider the author's own view as a putative example of such a theory. On the author's proposed account, the contingent world exists because (a) it is good that Being be understood, and (b) it is impossible for Being to be understood unless contingent beings exist. Since this is a teleological explanation, and teleological explanations do not necessitate, (a) and (b) together do not entail that the contingent world exists. This means that there is another possible world† — call it W† — in which (a) and (b) hold but contingent things do not exist.

But of course this is just to say that on the author's preferred view, the following is a contingent fact: *contingent things exist because (a) and (b) are true*. (It is contingent because if W had been actual, it would not have obtained.) Another way to put this is to say that on the author's view *it is a contingent fact that the good is efficacious*: that the good has managed, in actuality, to call into being some of the necessary conditions for its realization.

We may therefore ask: Why is this contingent fact the case? Why is it that in this world the good has been efficacious when it might not have been? It seems to me that the author's view does not allow for an answer. One may be tempted to repeat the teleological gambit: The good has been efficacious because it is *good* that it should be efficacious. But it seems to me that this is to miss the force of the question. It is presumably a necessary truth, knowable a priori, that it is good for the good to be efficacious. This truth therefore holds both in actuality and in W. But what we want is some fact to explain why @ is actual and W is not. And for this purpose we need a factor that distinguishes @ from W, and for this purpose a necessary truth will not do.

I am not denying at this point that a teleological principle might explain without necessitating. I am rather claiming that when such a factor does its work, there is bound to be some contingent fact left unexplained. Here is a rough analogy. Suppose that a certain atom, A, has an 80% probability of decaying in a certain interval of time, and suppose that A does in fact decay. We ask, "Why did A decay?" and the first answer is: It decayed because given the laws of nature, it was probable that it would. But suppose we ask, "All right, but why did the probable thing happen in this case? After all, sometimes it doesn't. There are possible worlds with just the same laws and just the same initial set up in which A did not decay. Why isn't the actual world one of those?" It seems to me that this is a question that does not have an answer. In a genuinely probabilistic framework, it is inevitable that some facts will be inexplicable. These need not be facts about 'first-order' chancy processes. When the probable event occurs, we may cite the fact that it was probable as an explanation for its occurrence. But if we ask we, in this particular case, the probable event occurred *rather than some* less probable *alternative*, then we have a contingent fact for which no explanation has been offered.

I concede, however, that this is not obvious. If we grant that the fact that A has an 80% probability of decaying explains why it did decay, then why can't we also say that this probabilistic fact explains why, in this case, the probable thing happened? The probable thing happened because it was probable that it would. The analogy in the author's case would be to say: We explain why the contingent world citing the fact that it is good that it should exist. And we explain why the good was efficacious in this case by saying that it is good that the good should be realized. If the appeal to probability (or to the good) is admissible at the first stage, why should it not be admissible at the second?

I do not have a ready answer. Clearly, the question calls for extended discussion. I am reluctant to pursue the matter, however, since the discussion takes it for granted that impersonal teleological explanation makes good sense. I

have grave doubts about this suggestion, however, and since it is obviously the more fundamental issue, I should engage it directly.

## VII. Impersonal Teleology.

According to the author, contingent beings exist because it is good that they should exist. What sort of explanation is this?

Teleological explanation is obviously unexceptionable when it is shorthand for psychological explanation. Why does this house exist? Because Jones needed a house. But why does Jones have what he needs? Because Jones believed that he needed a house; knew how to build one; had the resources to build one, and took steps to secure what he needed. The analogous explanation in the cosmological case is Teleological Theism. "Why does the world exist? Because it is good that it should exist. But why is the good realized? Because God knew it and desired it and had the power to bring it about." The author rejects this 'domesticated' teleology for reasons we have already considered.

Teleological explanation is also unexceptionable when it stands in for explanation by means of natural selection. Why do birds have wings? Because it is good for them to have them. But why do birds have what's good for them? Because an altogether random process generated protowings in protobirds, which conferred a small selective advantage. This small mutation was then amplified by natural selection, and then modified by subsequent mutation, all in ways that presuppose neither intentionality nor final causes. There is no plausible analogy to this sort of explanation in the cosmological case. As Peirce said, worlds are not as plentiful as blackberries.

The author's teleology is then neither of these. It is full-strength, pre-modern metaphysical teleology. An event occurs simply because it is good that it should occur† — with no mediating efficient causal mechanism whatsoever. What reason do we have to accept such explanations? Let us grant that some great good can only be realized if contingent things exist. Why should we believe that this fact explains why contingent things exist?

Well, if we knew in advance that the existence of contingent things *must* have an explanation, and if we had ruled out all the others as independently unacceptable, then we would have no choice but to accept the teleological account *faute de mieux*. But as I have already suggested, it is not clear that we have ruled out certain versions of standard Theism. And much more importantly, we have no reason to think that the fact in question must have an explanation. The existence of contingent things might just be a brute contingency.

It therefore seems to me that the best that can be said for the proposal is that it provides a *better* explanation of the contingent world than the alternatives, and that we should accept the best explanation rather than throw in the towel.

But of course the latter principle must be qualified. Of course we should accept the better explanation — †but only when that explanation is good enough. Only when it sheds genuine light on the phenomena. Only when it does not appeal to strong explanatory principles for which we have no independent basis. Only when it is not an ad hoc account developed for the special purpose of explaining this one fact and this one fact alone.

Is the author's appeal to impersonal teleology a good enough explanation? Is it objectionably ad hoc in this sense? It seems to me that it is. Are there any other cases in which we must appeal to the fact that S is good to explain why S is the case? Leave aside cases of psychological and evolutionary teleology. Are there independent reasons to believe in impersonal teleological explanation?

I cannot think of any, and the author does not supply examples. "The spider built the web in order to catch the fly." This is indeed an explanatory remark. But only because we have independent reason to believe that spiders and other animals are likely to do what they need to do in order to survive: a principle that is itself explicable in evolutionary terms. If we had no independent reason to believe that spiders were likely to do what they need to do, and if there were no naturalistically acceptable account of how they could go about securing what they need, then the fact the spider needed to build a web would not explain why he did so. It would be like the claim: It rained because the plants needed the rain. I assume the author would agree that *this* sort of teleological explanation is a non-starter. *Why is the appeal to teleology in the cosmological case any different?*

Let try to make my worry more concrete. The author cannot plausibly maintain that the cosmological case is the only case of impersonal teleology. If the contingent world exists because it is good that it should exist, then this explanation must be backed up by some general principle such as the following:

(T) *If it is good that S obtain, then S probably does obtain.*

For suppose that S's being good did not make it likely or probable that S would obtain. It would then be entirely unclear why the fact that coming to understanding is a good thing should *explain* why the necessary conditions for the process should be in place. If someone asks, "Why did the coin come up heads ten times in a row?" and I say, "Because it was fabulously unlikely that it would", there is a clear sense in which I have not answered the question. I conclude that impersonal teleological "explanation" deserves the name only if a law such as (T) backs it up.

But now, what is the status of (T)? We might ask first whether (T) is necessary or contingent. I myself have no trouble conceiving a world in which the Good is quite unlikely to be realized. And that suggests that (T) is at best a contingent truth. But if it is contingent, we may ask why it obtains. And here it seems to me, the appeal to (T) itself would be straightforwardly circular. If the author chooses this horn of the dilemma, then he must concede that on his own view, at least one fundamental contingent fact remains unexplained, in which case we are left with an unappealingly subjective choice among competing systems. My own choice would be to locate the 'first inexplicability' in the existence of the contingent world itself. But others may choose differently, as we have said.

Might it be said that (T) is a necessary truth? It strikes me as a very poor candidate for necessity. Its denial is not absurd. Indeed it is eminently conceivable. Of course we know that fundamental principles may be necessary without being analytic—the principles of mathematics may be one example; the first principles in the theory of universals may be another. But these principles tend to wear their non-contingency on their faces. We seem to know in advance that the truths of mathematics can't be contingent. By contrast (T) has the form of a statistical law, and we have no clear basis for regarding such principles as necessary.

Leave aside the question of (T)'s modal status and let us ask instead, Is it true? Do we have any reason to believe that S is more likely to obtain than not when S is a necessary condition for the realization of some great good? I have no idea. We know that some great goods are realized and that others are not. But we have no way to estimate the relative frequency of such realizations, and so (it seems to me) no way to estimate the relevant probabilities. That being so, I am inclined to the view that (T) is at best a baseless speculation. As such, it is a poor candidate for a fundamental metaphysical principle.

If I am offered the choice between accepting (T) and regarding the existence of the contingent world as inexplicable, I choose the latter hypothesis. It may be good (in various ways) that the contingent world exists. But I cannot regard this fact as explanatory unless I have some independent reason to believe that in general, it is more likely than not that good things happen.

### **VIII. Identifying the Telos.**

Let me close with one brief suggestion for improving the work. The author makes a plausible case (given his assumptions) for the view that the good for the sake of which the contingent world exists must be supreme and fundamental. But when he canvases candidates for this fundamental good (and then argues by elimination for his favored alternative) the list strikes me as much too short. The knowledge of the

structure of Being is a good thing. But it is hardly most important good. Consider a world of miserable human beings brilliantly banging away at their metaphysics but never knowing the pleasures of ordinary friendship, art, fun, love, and the rest. Such a world would not be altogether worthless. But it would be vastly inferior (in my opinion) to a world replete with ordinarily satisfied human beings but bereft of metaphysics. If we must identify a single good for the sake of which contingent beings exist, why shouldn't it be the realization of these homely goods?

The author has an answer to this sort of question. He argues that that the telos must be an *unimprovable* good:

This means that we cannot make something better than the Good by realizing other goods along with it. For if we could add other goods to the Good and thereby make a bundle of goods better than the Good, the embarrassing question would still remain: 'Why is it not the case that contingent beings exist for the sake of realizing this larger basket of goods, which includes your alleged Good and these other goods which make something better?' (p.10)

But I don't understand this. It seems to me that the author's candidate for the supreme good clearly is improvable. Consider two worlds in which the process of coming to understanding goes to completion: in the first life is for the most part nasty brutish and short; in the second it is accompanied by the ordinary goods that make the vast majority of ordinary human lives worth living. The latter is clearly a better world. How can the author suggest that the understanding the form of Being is supreme? The question seems so clearly unanswerable that I'm led to wonder whether I haven't misunderstood the view.

## **IX. Conclusion.**

These remarks have been largely critical. Nonetheless I should stress that this is an impressive piece of work. The underlying framework raises a number of fundamental questions, some which might answered in a more explicit formulation of the proposal. The main stumbling block to wider acceptance of the positive view will be the author's appeal to impersonal teleology. It is sometimes said that the rejection of teleological explanation is the main distinguishing feature of modern science. But the rejection of *impersonal* teleology is in fact much older than modern science. It is incorporated into the main theistic traditions as well. The author's recourse to it therefore calls for more defense than he supplies. A substantive treatment of this topic would immunize *Coming to Understanding* against what is likely to be a dismissive response among contemporary

philosophers. Such immunization is very much to be desired. This is a rich piece of work. It repays close consideration.

## Part 2

One of the guiding themes of *Coming to Understanding* is the suggestion that the theory of the categories is the key to the persistent mysteries of philosophical cosmology. In the first part of this review I discussed the cosmological problem and its general solution according to A. M. Monius. In this part I discuss the doctrine of the categories and its relation to that problem.

### What is a Category?

Systematic philosophy since Aristotle has been intermittently preoccupied with the project of providing a theory or 'table' of the so-called categories. The centerpiece of *Coming to Understanding* is a new and remarkable contribution to this tradition. Before we examine the proposal in detail, however, something must be said about the question it is meant to answer.

What is a category in the relevant sense? So far as I can see, the author does not provide a definition. It is possible to reconstruct a partial account from the author's remarks. But these remarks raise a number of interesting questions. In my opinion, *the system would be improved by the inclusion of such a definition.*

This much is clear:

1. A category is a universal.

Categories are not words or concepts. They are properties and relations which exist independently of thought and language. The theory of the categories is thus a part of the theory of universals. Now one of the aims of the first part of this review was to stress that the theory of universals implicit in *Coming to Understanding* is inconsistent, or at the very least, underspecified. So it bears repeating at this point that *the work would be substantially improved by the inclusion of a general theory of universals.* Such a theory would answer the central question: Under what circumstances does it follow, from the fact that X is F, that there exists a universal, F-ness, which X instantiates? It would also answer certain general metaphysical questions about universals. Do they exist *in* the particulars that instantiate them? If so, is a particular composed entirely of universals, or does it possess some further (non-universal) constituent? If not, how does the fact that X participates in F explain why X behaves as it does? How do transcendent universals (platonic forms) do their causal work? The author is under no obligation to answer every

question that might arise in this part of metaphysics. But it would help immensely if he were to locate his own position on the map of more or less familiar theories of universals.

Let us agree that every category is a universal. The author takes it for granted that some universals are not categories. Every particular radish is an instance of universal **radishness**. But we may presume that **radishness** does not qualify as a category. And that suggests the question, Why not? What is the distinction between categories and other universals?

*Coming to Understanding* contains two rather different answers to this question. I do not suggest that they are incompatible. But they are not obviously equivalent. According to the first line of thought,

2. A category is a *fundamental kind of Being*

According to the second,

3. A category is a *necessarily existing universal*.

Let's consider each in turn.

### **Categories as Fundamental Kinds of Being**

Every universal is a kind of Being. If radishness is a universal, then that is one kind of Being. After all, to invoke another, related idiom: One way to be is to be a radish. But clearly enough, radishness it is not a fundamental kind of Being. And the suggestion is that this is what prevents it from being a category.

But what is it for a kind to be a fundamental kind of being? There is no doubt that we have some intuitive grip on the notion. It would appear, for example, that in many cases, a universal is more fundamental than its subtypes: that a genus is more fundamental than the species that fall under it. Thus human being is intuitively more fundamental than American, and living thing is more fundamental still. But is this true in general? I don't think so. Proton and neutron are both types of nucleon. But in this case, the more specific universals would appear to be more fundamental. Nucleon is a disjunctive kind. To be a nucleon just is to be a proton or a neutron. And where F is disjunctive in this way, it is intuitively less fundamental than its species.

Can we unify the two intuitions? Here is a suggestion. In the standard case—the case in which the species is less fundamental than the genus—the species is explained or defined in terms of the genus. To be a human being just is to be a living thing of a certain sort. To be an American is to be a human being of a

certain sort. In the non-standard case, this explanatory relation is inverted. The genus—**nucleon**—is explained in terms of the species, **proton** and **neutron**.

This suggests the following principle:

4. F is more fundamental than G if F figures in the account of what it is to be a G.

I can see no intuitive objection to this principle. But needless to say, it is not sufficient for the author's purposes. Note first that it provides at best a necessary condition for one universal to be more fundamental than another, and that many of our intuitions cannot be accounted for by such a principle. The universal living thing is no doubt more fundamental than the universal sapphire. But there is no reason to suppose that the former figures in the account of the latter. So if we know this fact, it is not on the strength of knowing (4).

More importantly, (4) supplies a partial account of *relative* fundamentality, whereas the account of categoricity seems to require an absolute notion. If Being exists, then it is plausibly the most fundamental universal. To be an F is always to be a being of a certain sort. (For doubts about the existence of Being, see part 1.) But we know that Being is not the only category. So we need a principle for drawing a line within the domain of less-than-absolutely-fundamental universals. We need an answer to the question: 'When is a universal *fundamental enough* to count as a category? I do not know how to provide such a principle. But this line of thought raises the prospect that the line might be vague. Might categoricity be a matter of degree? It seems clear from the author's practice that he would reject this suggestion. And that suggests that relative fundamentality cannot be the principle that divides categories from the mere universals.

### **Categories as Necessary Existing Universals**

The author clearly believes that the categories are the necessarily existing universals. What is unclear is whether necessity is the criterion of categoricity—whether it is what makes the categories to be categories—or whether it is merely a concomitant of categoricity.

It seems to me that necessity cannot be the criterion of categoricity. The modal status of universals is a controversial matter, and it would appear to be orthogonal to the theory of the categories. Some authors—let's call them platonists—maintain that every universal exists of necessity. They agree that there might not have been any particular plastic items. But they hold that even so, the universal plastic would have existed, perhaps in Plato's heaven, perhaps in the mind of God. Others—let's call them Armstrongians—maintain that every

universal exists only contingently. These authors typically defend relative sparse theories of universals on which the vast majority of general terms fail to pick out genuine universals. But they also typically defend the *principle of instantiation*: The universal F exists if and only if it is instantiated. And they add that in general, whether F is instantiated is a contingent matter. The author himself defends a hybrid view. Some universals respect the principle of instantiation and among these, some (like plastic) exist only contingently. Other universals exist necessarily and are necessarily instantiated. (Being is the author's example. For doubts about this view, see part 1), while others exist necessarily and violate the principle. On the author's view, particularity is a necessarily existing universal. But there might have been no particulars, so it might have existed without instances.

Now the author has nothing explicit to say against the platonism or the principle of instantiation. So I assume that at this stage, such views still on the table. And yet I assume that he would agree that even if the platonist were somehow correct, it would not follow that every universal is a category. It may be true (since the platonist and the Armstrongian may both be wrong) that the categories coincide with the necessarily existing universals. But even so, it strikes me as implausible that *to be a category just is to be a necessary universal*. The case for the necessary existence of particularity has not been made, since no argument against the principle of instantiation has yet been given. And yet it seems to me that the case for the categoricity of particularity has been made. Or at any rate, I am more confident at this stage that particularity is a category than I am that particularity exists of necessity. This confidence seems to stem from the immensely plausible claim that the distinction between universals and particulars is a fundamental distinction within Being. If that is right then the fundamentality criterion is to be preferred. And yet as we have seen, it does not add up to a general definition of categoricity. *The work would be improved if the notion of categoricity could be defined explicitly in terms of the notion of a fundamental kind of being.*

### **The Axiom of Dichotomy**

The author's main contribution to the theory of the categories is the suggestion that something like the Aristotelian distinction between form and matter applies at the level of universals. Now since there is no consensus as to how this traditional distinction is to be understood, this claim is hardly self-explanatory. Let us see what it comes to by considering the author's first example.

We begin from the observation that Being exists of necessity. Being is the highest genus—the most inclusive universal—and it is (therefore?) the most

fundamental category. (The corresponds to Axiom 1 in the author's analytic presentation on p.41.)

Next we note that Being divides into two fundamental kinds or subcategories: Universal Being and Particular Being. This is an instance of a pattern that will be repeated many times, and we do well to get clear about just what it involves. No one denies that beings are of two sorts: universals and particulars. (Not true, strictly speaking. Ramsey famously (if obscurely) questioned the sense of the distinction. But let this pass.) This division has two formal features. It is exclusive: No universal is a particular, and vice versa. And it is exhaustive. Every being is either a universal or a particular. Let us call any such division a *binary partition*. The general pattern that recurs in the author's treatment of the categories is then as follows: A universal F is given and it is certified as a category. A binary partition of F is then proposed. Its terms are identified as the immediate subcategories of F. It is then argued that one of these subcategories corresponds to the form of F, the other to its matter.

We shall return to distinction between form and matter in a moment. But first I would like to raise a question about the initial partition. Any universal F admits of indefinitely many binary partitions. If we start with Being then we might distinguish Universal Being from Particular Being. But we might also distinguish green Being from non-green Being; French Being from non-French Being, and so on and on. Some of these divisions are clearly silly. At least one of the terms in the partition is clearly *much less fundamental* than the original universal, and that belies its claim to be an *immediate* subcategory. But even if we restrict ourselves to non-silly partitions, there would seem to be a number of serious contenders in the running. There are lots of fundamental-seeming metaphysical distinctions within the category of Being. There is the distinction between the material and the immaterial, the necessary and the contingent, the abstract and the concrete, the temporal and the timeless, the spatial and the non-spatial, the finite and the infinite, the created and the uncreated and so on and on. These distinctions cut across the distinction between universals and particulars, and there is no doubt that they are real. In proceeding as he does—in privileging the distinction between universals and particulars at this stage—the author is claiming that, however real they may be, none of these distinctions marks the line between the two most fundamental kinds of Being. But how might one defend this claim? How might one argue that one among the many non-silly partitions of F is the correct partition of F into its immediate subcategories? It is a striking feature of the author's procedure that he never considers alternative proposals for the partition of the categories he discusses. He therefore gives us no insight into how the correct division is to be identified. *The work would be improved by the inclusion of an explicit criterion for identifying the privileged partition of a category.*

Now in the example, as I have stressed, the initial division is a binary partition. So far as I can see, this is a general pattern. However, the author's official formulation of this aspect of his view does not quite entail this. The relevant axiom reads as follows:

Axiom 2 (Axiom of Dichotomy). Every Category (or necessary universal) has an immediate subcategory which stands to it as form and another immediate subcategory which stands to it as matter.

The name—The Axiom of Dichotomy—suggests more that each category has exactly two subcategories, and moreover, that these categories do not overlap. If this is a feature of the view then the principle should be revised as follows:

Axiom 2 (revised) Every Category F has a binary partition into subcategories G and H, one of which corresponds to the form of F, the other to the matter.

But if this is the principle then it seems to me that it should not be an axiom. It ought to be a theorem. It is a remarkable fact—if it is true—that each category has exactly two immediate subcategories, and that these subcategories do not overlap. Nothing in the concept of a category or a subcategory entails this. As a general claim about properties it would have no plausibility. The kind quark appears to have six fundamental subcategories (up, down, top, bottom, strange, charmed) without any privileged binary division. *If the Categories are distinctive in possessing a privileged binary partition in every case, this fact ought to be explained by reference to more fundamental principles of the theory.* If such an explanation were available, the Axiom would be unnecessary. (It would still be true. It just wouldn't be an axiom.)

It remains to discuss the second part of the Axiom of Dichotomy. Let it be granted that the immediate subcategories of Being are Universality and Particularity. What might it mean to identify one of these subcategories as the form of Being and the other its matter?

The hylomorphic idiom is introduced in the following passage:

Let us say that the form of a thing—any thing, equivalently, any being—is that aspect of a thing that is properly cited in response to the question, 'What is it to be this thing?' So if we ask, 'What is it to be Being?' we ask after the form of Being (p.25).

So far, so good—or at least, so familiar. But the passage continues as follows:

The most general account of what it is to be Being is this: to be a thing that is a universal. So Universal Being can be thought to be the most general form of Being. (Ibid.)

Let us agree with the general formula:

5. The form of X is that feature of X that would be cited in the best answer to the question, 'What is it to be X?'

This modifies the author's formulation somewhat. Where he refers to that aspect of X that would be properly cited in response to a certain question, I refer to the feature that would be cited in *the best* such answer. Perhaps there is no difference. But the author's formulation seems to me compatible with the following possibility. X has a complex essence. The story of what it is to be X involves several clauses, each of which mentions some feature of X. Any one of these features might *properly be cited* in response to the question, "What is it to be X?" One might say: "Part of what it is to be X is to be F". But one might also say, "Part of what it is to be X is to be G". Now these claims might both be correct. But we cannot say that the form of X is F, and that it is G. We can only say, "The form of X is to be F and G and ... ". This is the best answer to the question, even if it is not the only correct answer. And it seems to me that only the best answer gives us the form of the thing in question.

This may seem pedantic. But it seems to me quite material. In the second part of the passage I have cited, the author asserts that 'the most general account of what it is to be Being is this: it is to be a thing that is a universal'. Now I do not know what work the word 'general' is supposed to do in this formulation. But it seems to me that the proposed answer is incomplete. If someone were to ask, "What is it to be Socrates?" we might answer: "To be Socrates is to be an animal". But of course this account does nothing to distinguish what it is to be Socrates from what it is to be Bucephalus. And yet surely, there is a distinction. What one really ought to say, if one wishes to speak literally, is that *part of what it is to be Socrates is to be an animal*. And likewise, the truth in the vicinity of the author's claim is the following:

6. Part of what it is to be Being is to be a universal.

But (6) does not license (7):

7. The form of Being is Universal Being.

The author's inference is (on the face of it) no better than the inference from

8. Part of what it is to be Socrates is to be an animal

To

9. Animality is the form of Socrates.

What is going on here? One thought is that the author has a somewhat non-standard account of form—an account that is inconsistent with the most natural interpretation of the Aristotelian formula given in (5). On the account I have in mind, the form of a universal is not the best *account* of F—the best answer to the question "What is it to be F?" but rather the best answer to this question *among the fundamental kinds or subcategories of F*. I'm pretty sure I know what the form of Being ought to be. To be Being is to be a universal that applies to absolutely everything. But *being a universal that applies to absolutely everything* is not among the immediate subcategories of Being. So that answer is not available. If I am restricted to these subcategories —namely, Universal Being and Particular Being—then the best answer I can offer is indeed: To be Being is to be a universal. Since this fits the author's practice (at least so far, see below), let us adopt this as a provisional account:

10. If G and H are the immediate subcategories of F, then the form of F is the best answer *among these* to the question, "What is it to be F?"

Perhaps the first thing to note about this revised formulation is that if the Axiom of Dichotomy is revised in the manner I have suggested, it may be simplified considerably. According to the revised principle, the immediate subcategories of F are bound to be exclusive. So at most one of G and H will be a feature of F. And this is sufficient to guarantee that at most one of them provides even a minimally correct answer to the question, what is F. Given these assumptions, (10) is thus equivalent to (11):

11. If G and H are the immediate subcategories of F, the form of F is the subcategory that applies to F (if either).

The qualification "if either" will be crucial later on.

A more important question to ask about (10) and its simplified formulation (11) is whether the Aristotelian jargon has not now been distorted beyond utility. It seems to me that it would be a counsel of honesty at this point to dispense with talk of 'form' and 'matter' and to speak instead of (say) *primary* and *secondary subcategories*. One might then try to see to what extent the notion of a *primary subcategory* coincides with the traditional Aristotelian notion of form. Nothing of substance can turn on the choice of words. But the author's choice breeds an illusion of familiarity. In what follows I shall fall in with the author's terminological preference. But I would like to register a caveat in advance. The choice strikes me as potentially misleading.

Here is one illustration of the way in which it may mislead. Having established to his satisfaction that Universal Being is the form of Being, the author raises a puzzle. Universal Being and Being are both universals. How then are they to be distinguished? The answer is that Particular Being is a subcategory of Being, but not of Universal Being, and this is what distinguishes them. And from this it is supposed to follow that Particular Being is the *matter* of Being itself. Now this sounds like—and is meant to sound like—an instance of the classical pattern. Matter is invoked as a principle of individuation to explain the distinction between two items that share a form. But as we read on it turns out that this cannot be right. If (10) is correct—if the form of F must be among the immediate subcategories of F—then Universal Being and Being do not share a form. They are both universals. But Universal Being is not one of its own subcategories. So the form of Universal Being cannot be Universal Being. (It turns out that the form of Universal Being is Necessary Universal Being.) So we do not have an instance of the classical pattern. We do not have the problem of individuating two distinct items that share a form. And that being said, it is quite unclear why it should seem appropriate to refer to Particular Being as the *matter* of Being. Nowhere in the story does Particular Being play the distinctive individuating role of matter. The terms "form" and "matter" thus have misleading connotations in the present context. Or perhaps I should simply say that I was misled the first time I worked through this material, and that I remain somewhat confused. *The work would be substantially improved if the terminology were altered. What the author calls 'form' should be called the 'primary subcategory'. What the author calls 'matter' should be called the 'secondary subcategory'. It will then be an open question whether (and in what ways) this distinction maps on to the Aristotelian contrast between form and matter.*

## **The Form of Universality**

I would like to consider another example of the author's procedure in these early stages. Consider the next step in the taxonomy: What is the form of Universal Being? The first step in the inquiry is to determine the fundamental subcategories of Universality, or equivalently, the most fundamental distinction among universals. The author assumes without argument that the fundamental kinds of Universality are Necessary Universal Being and Contingent Universal Being. And once this choice has been made, it is clear enough which corresponds to form and which to matter. But there are other ways to partition the domain of universals. For example, it might be said that the most fundamental distinction among universals is the distinction between properties and relations—i.e., the distinction between universals whose instances are individuals and those whose instances are ordered sequences of individuals. On this (not implausible) assumption, the form of Universal Being would presumably be Monadic Universal Being, its matter, Polyadic Universal Being. (This follows from the Axiom of Self-Application, about which more below.) I grant that the author's choice is plausible, and perhaps even natural. But I do not regard this as a particularly good basis for choice in this part of metaphysics. Why should our intuitions about which partition is more fundamental be reliable? It therefore seems to me that whenever a fundamental partition is announced, alternatives should be considered and the author's preferred account justified. I do not say that this cannot be done. But I would not know how to begin the task myself. *The world would be substantially improved if it were supplemented by illustrations of how to adjudicate among competing proposals for the division of a category.*

## **The Axiom of Self-Application**

The author considers a number of examples of this process: A category is divided, the distinction between form and matter drawn on intuitive grounds. He then notices a pattern. In each case, the subcategory that corresponds to the form of F is the self-predicating universal in the pair. This observation is then generalized and elevated to the status of an Axiom:

The Axiom of Self-Application. Self-application is the hallmark of the formal subcategory of a given category.

This principle is then appealed to in difficult cases. When the form of F cannot be identified on intuitive grounds, it may still be easy to say which of the two subcategories applies to itself.

There can be no objection to this methodology. A law is confirmed by induction from its instances, and once confirmed it may function as a basis for prediction. But I do have a question about the status of this axiom. It seems to me to encode a remarkable coincidence. Self-application is nowhere to be found in the intuitive characterization of the form/matter distinction. On the face of it there is no reason why the universals that crop up in answers to questions of the form 'What is it to be X' should in general be self-predicating. Moreover this is clearly not the case in general. One of the universals that figures prominently in the account of what it is to be Socrates is presumably particularity. But Particularity is not self-predicating, as the author is at pains to stress. So non-self-predicating universals can be *formal* in a general sense. And yet, as it happens, when the item in question is a universal, its formal attribute applies to itself. *Now why should this be?* It may be true, but if it is it is a remarkable fact. It is like the observation that featherless bipedality and rational animality coincide. But this is just to say that if the principle is not an accident, it must flow from something deeper, and that means that it is an unsatisfying candidate for axiomatic status. It may be true, and it may be heuristically useful. But it seems to me that it should not figure as a fundamental axiom of the system. Once again, if it figures at all, it should figure as a theorem.

### **The Structure of Contingent Universality**

The Four Causes make their first appearance in the discussion of the structure of Contingent Universality. The point is to make it plausible that a certain four-fold structure should be exhibited in the structure of Being itself. The argument for this conclusion—not a knock-down demonstration, but a plausibility argument—runs as follows: It makes sense to ask, of each thing, 'What is it to be X?', 'What makes up X?', 'What are the various particular causes and effects of X?', and 'What purpose accounts for X's existence?'. But this is too remarkable a fact to be adventitious. So, "it must be *part of what it is to be a thing or a being*, i.e., it must lie in the nature of Being itself." (p. 33). The immediate purpose of this observation is to justify the suggestion that the two main subcategories of Contingent Universality are the Teleological and the Efficient.

I have a number of questions about this proposed division. So far it has been fairly clear in every case that the proposed division of a category was a binary partition into subcategories. But in this case that is not at all clear.

Are the Teleological and the Efficient subcategories of Contingent Universality? So far I have assumed that the relation of subcategory to category was one of straightforward subsumption. Every universal being is a being, so Universal Being is subsumed under Being. Every necessary universal is a

universal. So Necessary Universality is subsumed under Universality. In this case, however, I am not sure how to assess the question. We are talking about subcategories of the category of Contingent Universality. So the subcategories in question must be kinds of universal. But what exactly is a telic universal? Which universals instantiate Efficiency? The author suggests that the taxonomy at this point is a taxonomy of relations. ("After all, any instances of teleological or efficient *relations* have to be have to be instances of the necessarily existing category that is Contingent Universal Being (p.33)). But what is an example of a teleological causal relation? I think I can begin to answer. There is the relation that obtains between a person's ends and his actions. There is the relation that obtains between an organ and its purpose. There is the relation that obtains between the contingent world and the understanding of Being. These are all relations, and they are presumably all distinct. On the other side, within the category of Efficient Contingent Universality, we would have the various types or kinds of efficient causal relation: the relation that obtains between an intention and an action; the relation that obtains between a merely physical event and its normal upshot, and so on.

The author does not give examples at this stage, so I am uncertain. But let's suppose that I am right about what he has in mind. The proposal raises several questions for the Axiom of Dichotomy as we have interpreted it.

Are the subcategories exhaustive? It would seem evident that they are not. Consider plastic, the paradigm instance of Contingent Universality. It is neither an efficient nor a teleological relation. It is not a relation at all. So if the subcategories must be exhaustive, our interpretation cannot be right. (I should emphasize that the author does not say that the subcategories must be exhaustive. That was an inference from the examples, and from the suggestive label, "Axiom of Dichotomy".)

One possibility is that we have misidentified the instances of the Teleological and the Efficient. Maybe they are supposed to include not just the kinds of teleological and efficient causal relation. Maybe they are supposed to include the properties that distinctively enter in to such relations. This is a much wider class of universals. It may even exhaust the domain of Contingent Universality. But now to the puzzle will concern the exclusivity clause. It seems clear that many universals enter into both teleological and efficient relations. Bodily pleasure can function as that for the sake of which I act. But it can also function as the efficient cause of (say) a smile.

Much more importantly, it seems to me that in this case the two subcategories are by no means on a par. Efficient causation is ubiquitous. It is not out of the question that every contingent happening has an efficient cause. And it is clear that many (if not all) contingent universals confer distinctive efficient causal

powers and potentialities on their bearers. Indeed, to a first approximation, to be an instance of a contingent non-categorical universal *just is* to stand in certain efficient causal relations. By contrast, the category of teleological causal relation applies only to a vanishingly small fragment of the universe: to the products of intelligent agency in the first instance, and perhaps also (though in a different way) to the products of natural selection. Most things and kinds do not even begin to enter into teleological relations. And even when they do, this is (as it were) an emergent feature. Teleological relations are like economic relations. They are perfectly real, but they emerge only in complex systems whose components are explicable in other terms. To place the efficient and the teleological at the same level in the table of categories is to suggest that these two notions are equally fundamental. But it seems to me that this quite implausible.

Now I know that the author disagrees with this assessment. He regards teleological explanation as a fundamental species of explanation, applicable in principle even to the most elementary parts of nature. But if this stage in the development of the table of categories is to be convincing, this pre-modern worldview must be defended at some length, and with some sympathy for the philosopher who finds it all benighted. The author gives the impression that the availability of impersonal teleological explanation as a response to the cosmological question falls out of (or is supported by) the analytic account of the categories. But if the parity of the Telic and the Efficient is simply assumed in the account of Contingent Universality, this claim is quite misleading. The ubiquity of teleological explanation is taken for granted from the start.

When I approach the question naively—What are the two most fundamental kinds of contingent universal?—the author's answer strikes me as bizarre. Some more natural answers:

Monadic vs. Polyadic (once again)

Simple vs. Complex (Some universals apply only to complex things; others apply to simples.)

Structural vs. non-structural. (Some universals involve other universals as constituents. Others do not.)

Mental vs. Physical. (A rationalist favorite.)

Infinite vs. finite. (Another old favorite though perhaps only tententiously regarded as distinction within Contingent Universality.)

Normative vs. Non-Normative.

I would not know how to begin to make the choice. But all of these dichotomies strike me as intuitively more fundamental than the author's. It is hard to avoid the sense that at this stage in the argument, the filling out of the table of categories is being guided by the author's cosmological interests and not by intuitive considerations deriving from the subject matter immediately at hand. This impression is reinforced at several places further on.

### **The Analysis of Particular Being**

I pass over the remaining divisions within Universal Being in order to take up the author's account of Particularity. According to the author, the immediate subcategories of Particular Being—the two most fundamental kinds of particular—are Spatiotemporal particularity and Comprehensible Particularity. Now up to this point in the development of the system, the division of category is a division into exclusive and exhaustive subkinds. Is this principle still in place? It would seem that it is not. A philosopher *might* conceivably maintain that spatiotemporal particulars are incomprehensible, and that comprehensible particulars are non-spatiotemporal. But so far as I can see, A. M. Monius has no real use for the notion of a non-spatiotemporal particular. And in any case, he does not deny that spatiotemporal particulars are comprehensible, since he regards sensation as a mode of comprehension, and no one doubts that spatiotemporal particulars are often sensible. The suggestion is rather that spatiotemporality and comprehensibility are two *aspects* of particularity. Considered *as* a spatiotemporal system, the world of particulars is "surd" or inexplicable. Only when they are considered differently—as having a point or a purpose—are spatiotemporal particulars comprehensible. These two "aspects" of Particularity are not exclusive *subcategories* of Particularity. And yet they are supposed to constitute the most fundamental division of the category.

I must say that I could have done with a bit more explanation here. It is tendentious to identify the comprehensible with that which admits of teleological explanation. Physicists are quite good at understanding (comprehending) spatiotemporal things in non-teleological terms. Moreover, insofar as comprehending a thing involves perceiving its point or purpose, I do not see how the spatiotemporal and the comprehensible could be on a par. As I have suggested at several points, it seems quite probable that the domain of the spatiotemporal vastly exceeds the domain of the comprehensible so understood. To place them on a par is like dividing the domain of living things into plants on the one hand and Yorkshire terriers on the other.

My confusion on this point is reinforced by the author's division of the category of the Comprehensible. We are told that there are two fundamental sorts of comprehensible particular—or perhaps better, two *ways* in which particulars may be comprehended. They may be "immediately given to the senses", in which case they are Sensible, or they may be the sort of thing that is immediately given to (intellectual) "cognition", in which case they are cognizable. But this raises a pair of questions. First, Why should we believe that this division is exhaustive? The physical processes at the center of the sun are particulars, and we know a great deal about them. But they are neither sensible nor given immediately to intellectual cognition. Most scientific knowledge of particulars is of this sort. Second, if sensation is a form of comprehension, what are we to make of the suggestion, implicit in the previous division, that spatiotemporal particulars considered as such are somehow surd or incomprehensible?

It seems to me that at this point in the discussion the admirable lucidity that attaches to so much of what has come before has been sacrificed in the interest of brevity. I find the author's claims about the division of the category of particularity undermotivated and in some cases rather hard to understand. One gets the impression that the author is in a hurry to move on—to *make something* of the table of categories. But this is not the time to rush. I am trying to resist the impression that in forcing the division of the categories as he does, the author is stacking the deck in preparation for the stunning dénouement. That impression is uncharitable, and I would like to resist it. But I would not have been tempted in the first place if these divisions had been explained and justified against alternatives.

The analysis of Particularity differs from the analysis of Universality in several ways. As we have already stressed, the divisions are no longer (on the face of it) binary partitions into subcategories. More importantly, perhaps, the Axiom of Self-Application no longer holds, strictly speaking. The formal subcategory of Particular Being is Comprehensible Particular Being. But (as the author notes) this category does not apply to itself. It may be comprehensible, but it is not a particular. Indeed no category within the category of Particularity is self-applicable. The principle therefore requires an analogical interpretation in this part of the table. And that means that one of the most impressive symmetries of system is in fact a pseudo-symmetry. I find this disappointing. There ought to be a single straightforward formulation of the Axiom of Self-Application that applies uniformly at every stage in the division. *The system would be improved by the inclusion of such a formulation.*

## The Axiom of Connective Relations: Efficient Causation

The final axiom states that counterparts of the four Aristotelian causes—understood as patterns of explanation—exist within the domain of the categories. We have already seen the analogs of formal and material causation. It remains to discern the counterparts of efficient and final causation.

Necessarily existing universals do not need efficient causes: Nothing brings them into being. The claim is rather that such universals stand in relations to one another that bear a striking analogy to the efficient causal relation among particulars. As the author sees it, the metaphysical core of the notion of efficient causation is a notion of ontological dependency. The effect depends on the cause; the cause is prior to the effect, not just temporally, but somehow metaphysically. The most important feature of this relation is its asymmetry. The effect depends upon the cause, but not vice versa. The challenge is therefore to identify a similar relation of asymmetric dependency among universals.

Now one traditional analogy—which the author rejects—has it that causal priority among particulars corresponds to *definitional priority* among universals. Some universals have non-trivial real definitions. To be F is to be G and H. To be X is to bear R to a Y. The idea is that when a universal is complex in this way, we may say that the definiendum depends on the defining terms and not vice versa. If it is the case that to be F is to be G and H, then F is what it is in part because G is what it is. This is a relation of dependency, and it would appear to be asymmetric.

The author rejects this proposal for what strike me as unconvincing reasons. Take the case in which the real definition of F takes the standard Aristotelian form:

(GD) To be an F (species) is to be a G (genus) that is H (differentia).

The simple proposal would then entail that the species depends upon both the genus and the differentia. The author concedes that the species depends on the genus in a sense. But he maintains that this dependency is not asymmetric since "the genus can be defined as a disjunction of constitutive subspecies, as in: To be a creature is to be a man or a dumb animal or a plant or an angel or..." (p.46) But now it seems to me that this disjunctive definition is clearly incorrect. It is extensionally correct. There is no doubt about that. But it seems to me plainly wrong to say that this is *what it is to be a creature*. To be a creature is to be an object that owes its existence to God's creative power (or perhaps simply to the creative power of something else.) The disjunctive formula applies to all and only creatures. But it fails to disclose what they have in common that makes them creatures. And for that reason it will not do as a real definition of the notion.

Suppose someone asked you what it is to be a number. It would miss the point to say: To be a number is to be either an odd number or an even number. It's not just that such a definition would be circular. It's that it fails to disclose what the various species of number have in common in virtue of which they are species of number. That's why the central challenge in the philosophy of mathematics is so compelling. It's quite hard to say what it is to be a number.

If we reject this argument we have no ground for resisting the simple thought that the analog of causal dependency among universals is definitional dependency. If we accept it, however, we shall have to look elsewhere. And I must say that the author's alternative proposal is quite ingenious. The proposal is that the differentia—but not the genus—is the efficient cause of the species. The species depends on the differentia for its definition, as we have seen. But according to the author, the differentia cannot depend on the species for its definition. If this is right then one has the right sort of asymmetrical dependence.

But why can't the differentia be defined in terms of the species? If we are allowed to say that to be an animal is to be either a man or a horse or a pig or... why can't we also say that to be rational is to be either a man or an angel or God or...? I claim no expertise in the classical theory of definition. But on the face of it, I can see no relevant difference between these definitions. In my view neither is acceptable, for the reasons given above. But the author accepts the first, and given that, it seems to me that he should accept the second.

### **Final Causation among the Categories**

There is much more to say. But I will close with some brief remarks on the application of the notion of a final cause to the categories.

Once again, the categories do not need final causes, strictly speaking. Each exists necessarily, so there is no question of identifying that for the sake of which it was called into being. So once again we seek an analogical extension of the notion. And the first order of business is to identify the core metaphysical features of "ordinary" teleological causation, since these will form the basis for the analogy.

According to the author, there are three such features:

(a) *Finality derives from form.* Particulars may have final causes. This eye exists for the sake of seeing. But insofar as a particular does have a final cause, it has it by virtue of some formal feature that it may share with other particulars. This eye exists for seeing, but only by virtue of instantiating a form that it shares with other eyes. The author takes this to be a general principle governing teleology.

But is it? Suppose that I am fond of this particular piece of clay, and so I make a statue out of it with an eye towards *having something or other made out of*

*this piece of clay.* Now *being made out of this piece of clay* is not a formal feature of my statue. It is certainly not a feature that it shares with other things (at the present time, anyway). But I concede that this is a peculiar case. Perhaps less peculiar is the thought that individual people exist in order to fulfil a certain particular mission assigned to them by God. On this view, which cannot be excluded a priori, Peter exists in order to live a life of a certain sort, but not in virtue of any feature he might share with someone else, but rather simply by virtue of being Peter. Obviously enough, it would be a mistake to place much weight on these examples. But it does strike me as debatable whether even in the clear cases of final causation, we always find that ends are assigned to object by virtue of their form.

(b) *The end itself is formal in character.* The ends to which things are directed are clearly universals. This is hard to deny. If this by itself is sufficient to entail that final causes are always formal, then I have no real doubts about the principle. But as the author acknowledges, not every universal is a form (or formal). So we should ask whether that for the sake of which a thing exists is invariably a universal of this distinctly formal sort. I'm not sure I know how to approach this question. I know how to tell when a *category* is formal. I apply the Axiom of Self-Application, however precisely it is to be understood. But does this hold generally? Is seeing a formal universal? It does not apply to itself. Seeing cannot see. But if it isn't then these examples do not motivate the interesting principle that finality is directed at *form*. They motivate the weaker principle that finality is directed at *universality*. The author clearly needs the interesting principle in what follows. It would be nice to hear more about why the ordinary cases are supposed to support it. (I do not doubt the principle. But I would like to hear more.)

(c) *The final cause is more general—less specific—than the form of which it is a cause.* Eyes are for seeing. The eye is a type or kind of organ, and hence itself a universal. But the eye clearly much more specific than seeing. It is more determinate, less determinable. The claim is that this is a general feature of telic relations between universals.

I wonder about this. I have no specific reservations about the principle and I cannot think of a counterexample from the domain of relatively uncontentious final causes. But consider the author's main thesis: Contingent beings exist in order that Being should be understood. Here the comprehension of the structure of Being is the final cause, and the existence of contingent beings is that which it causes. But now it seems to me that the latter is much less determinate than the former. The existence of contingent beings is realized by the existence of a mouse, a quark, an economic transaction, a country, a contingent universal. The comprehension of the structure of Being, whether it is realized by human beings or by angels, is realized

in what would seem to be a much narrower class of ways. Put it this way: The contingent beings have much less in common with one another than do the instances of comprehending the structure of Being. Is this a counterexample to the third principle of teleological causation? I'm sure the author does not think so. It would be interesting to know why not.

None of these reservations is decisive. Let's suppose the author is right. The challenge is then to find a relation among the categories that satisfies the three core metaphysical features of telic causation. The author identifies such a relation. A formal category is the (analogical) final cause of the formal subcategory of its material counterpart. Thus Universal Being is the final cause in this sense of comprehensible particular being: the formal subcategory of particular being, which the material counterpart of Universal Being.

### **Coming to Understanding**

This pattern of telic (or quasi-telic) relations among universals is exploited to ground the author's answer to the cosmological question. We have the following striking chain of final causes.

The Patterned aspect of the Kinetic exists for the sake of the Stable

The Stable exists for the sake of the Comprehensible

The Comprehensible exists for the sake of Universal Being, which is the form of Being itself.

The author's name for this teleological "arc" is "coming to understanding". It's 'deduction' is meant to ground the teleological answer to the cosmological question: Patterned kinetic spatiotemporal phenomena exist so that there may be stable spatiotemporal phenomena, which exist so that there may be comprehensible particulars, which exist for the sake of the form of Being itself.

I will close with a question about this remarkable 'deduction'. Let us grant that the universals described above stand in relations of causal or explanatory dependency that bear a striking analogy to ordinary teleological relations. On the face of it, this provides some insight into *why these universals exist*. Even though they are all necessary, each exists *for the sake of* the next universal in the chain. But the cosmological question did not concern the existence of universals. It concerned the existence of contingent particulars. And so it might be objected: 'I now have some insight into why the universal patterned kinetic particular being exists. But I still don't see why it is instantiated? It is a category, after all, so it

could have existed without instances. So you have not explained what you set out to explain, namely, why the category of contingent being is instantiated".

I can imagine the questioner continuing as follows. "The pattern you call 'Coming to Understanding' is a pattern of necessary relations among necessarily existing universals. As such, it would have existed even if there had been no contingent world. Now when you told me at the start that contingent things exist for the sake of Coming to Understanding, I thought you meant that contingent things exist so that a certain contingent intellectual achievement might be realized. Now certainly these things are different. How are they related? How exactly does the teleological explanation of the contingent existence of ordinary things fall out of this observation about quasi-telic relations among universals?"

"You might say that the arrows in the final diagram are to be understood, not just as necessary relations among universals, but as contingent relations among the instantiations of those universals. The claim would then be, not simply that the universal patterned kinetic particular being exists for the sake of stable particular being, but that instances of the former exist so that there might be instances of the latter. I'm not sure whether this is licensed by the explanation of the 'teleological arrow' in the diagrams on p. 54. But let us suppose that it is. Then we do have—you are quite right—a teleological explanation for the existence of patterned spatiotemporal phenomena, stable particulars, and comprehensible particulars. But two questions arise:

- a. What can it mean to say that comprehensible particularity is instantiated in order that Universal Being should be instantiated? Universal Being would have been instantiated no matter what, by the categories themselves and by Being in particular.
- b. Even if we do have an explanation for why comprehensible particulars exist, we have no explanation for why they should be comprehended. The mere existence of comprehensible particulars is no great good. It certainly has no claim to be the highest good. The first part of *Coming to Understanding* gives the impression that the highest good is a sort of intellectual achievement: the comprehension by intelligent beings of the structure of Being itself. But how does that fall out of the pattern that has now been labeled "Coming to Understanding"? These seem to be two very different things."

## Response to four questions from A. M. Monius

### **Q1. What are the realistic prospects of articulating a basis for a dichotomous division of categories that is (a) in the spirit of the system and (b) in a significant way persuasive to professional philosophers?**

The first thing to say is that it is very hard to persuade professional philosophers of anything. A reasonable ambition would be to persuade them to take the system seriously: to regard it as a worthwhile object of study.

That being said, the question is partly strategic: What is the best way to get the pros to pay attention to this complex treatment of a question that most of them are disposed to reject. (The question I have in mind is not the cosmological question 'Why do contingent beings exist?' but the intermediate question, 'What is the proper table of categories?' The notion of a category is no longer current, though various related notions remain in play.)

As a strategic matter it seems to me that would help to present the issues by somehow engaging the contemporary literature. There is a small revival in philosophical cosmology these days, much of it surrounding the so-called anthropic principle. But I think it would be more interesting to focus on the literature in systematic analytic metaphysics. There a number of widely discussed systems in fundamental metaphysics, the most important of which are those of D. M. Armstrong and David Lewis. In more recent work, Kit Fine has developed a powerful alternative, much of which is inspired by Aristotelian hylomorphism. None of these writers exploits the notion of a category explicitly. If you could argue that they should—or that they somehow implicitly already do—that would be one way to interest professional philosophers in what you're doing. I can't tell from *Coming to Understanding* how much you know about this sort of work. My impression is that you are to some degree familiar with it. Let me know if you'd like a short bibliography. For Lewis and Armstrong the main texts are

D. M. Armstrong, *Universals and Scientific Realism*, Cambridge, 1978

D. Lewis, *On the Plurality of Worlds*, Blackwell, 1986.

As for the problem of dichotomous division: It *is* striking that so many of the most natural divisions of the categories are dichotomous, whereas in natural taxonomy there is no such tendency to dichotomy. Still, as I say in my review, it is not enough to propose a dichotomous division at every stage; the proposed division must be justified against the alternatives. I'm not sure what sort of argument would

be appropriate for this purpose. One might simply acknowledge that when the choices are considered individually there are many ways to go, while insisting that the best choice at each stage is one that fits into the best, most explanatory overall account of the categories. So you might say, for example: The category of Being admits of many dichotomous divisions. I propose to divide it by distinguishing Universality from Particularity, and my justification for this is simply that this division (unlike the others) ultimately permits a compelling account of why there are contingent beings. This would be an instance of the form of inference philosophers call "Inference to the Best Explanation". No philosopher with an interest in analytic metaphysics can resist this sort of inference on grounds of principle. It is the engine that drives the enterprise. The trick will be to make it plausible that your account really does provide the best overall explanation of the relevant phenomena.

Still it would be better to be able to justify the divisions as they arise. Consider the division of Being itself. There is your preferred division into Universality and Particularity; but as I suggest in my review, there are others. But let's consider some of these alternatives. There is, for example, the division between the contingent and the necessary. Why isn't that the most fundamental division?

I suppose one might argue as follows: When a being is contingent or necessary there is presumably some account of why it is so. That x exists contingently (or necessarily) is never something brute. It must admit of explanation, and this explanation will presumably refer to X's nature. (Consider as an example your explanation for why it is that Being exists necessarily.) On the other hand, it is hard to see what could explain why a given being is a universal or a particular. Why is animality a universal? The question hardly gets a grip. The only thing one can say is, "Well, that's just what animality is."

The example suggests a strategy. Suppose it is proposed that a category C be divided into subcategories A and B. If the question, "Why is this C an A (or a B)?" admits of an interesting answer in terms of concepts not already available within the table of categories, then the proposed division is to be rejected.

I suspect that this principle will not take you very far in justifying your divisions. For example, your division of the category of particularity would be in trouble. It may be a brute matter that any given spatiotemporal particular is spatiotemporal. (So far, so good) But it probably isn't a brute matter that a given comprehensible particular is comprehensible. There is presumably an explanation that adverts to the nature of cognition on the one hand and the nature of the object cognized on the other.

Still, this is roughly the right sort of principle. I'm afraid I can't provide a better one. But I don't see any principled ground for doubting that a suitable principle might be found.

**Q2. What are the realistic prospects of articulating a basis for a teleological relation between categories that is (a) in the spirit of the system and (b) in a significant way persuasive to professional philosophers?**

To be frank, I don't see an easy way of making sense of this. I can imagine a number of teleological relations between universals. For example, if it is the case that leaves exist so that trees may exist (or so that trees may flourish), then there is a teleological relation between the universals leaf and (flourishing) tree that reflects (and perhaps explains) this teleological fact about particulars. There may be *some* induced teleological relations of this sort within the domain of the categories. One might hold, for example, that kinetic spatiotemporal phenomena exist so that there can be stable spatiotemporal phenomena, in which case there would be a corresponding teleological relation among the categories. But of course, this would be an altogether controversial teleological hypothesis.

The strategy in the text is to look for a relation among the categories that is formally akin to teleological relations within the domain of contingent happenings, but which does not explicitly invoke the notion of good or purpose. Some of the formal features you identify seem to me relatively secure. For example, despite my quibbles about this in my response, it seems to me correct to say that the end for which Fs exist is both universal and rather more general or determinable than F itself. But this constraint by itself is much too weak to suggest an interesting analogy within the domain of the categories. For any given universal F, there will typically be many universals that are less determinate than F.

I suppose one might take the relation of determinate to determinable itself as the most salient analogy. F is a relative determinate of G iff being F is a way of being G. Being cherry red is a way of being red; and being red is a way of being colored. So cherry red is a relative determinate both of red and of colored. F is a determinate of G strictly speaking iff F (a) F is a relative determinate of G and (b) no other relative determinate of G is a relative determinate of F. So in the domain of colors, the absolute determinates are the particular shades.

The thought is that the relation 'F is a relative determinate of G' bears *some* formal analogy to the teleological relation between universals. But the analogy isn't very strong, and I don't think it would suit your purposes. I'm afraid I cannot do much better than this.

I wonder why you are so concerned to identify the teleological relation between categories by means of a formal analogy that in effect dispenses with the

distinctive 'for the sake of which'-ness of the teleological relation properly so-called. Why not look for genuine relations of value among the categories? I don't know exactly how this would go, and of course the evaluative claims would require substantive defense. My thought, however, is that once the teleological relation is stripped of its 'for the sake of which-ness', the formal features that remain are too weak to determine a compelling analogy.

**Q3. What are the realistic prospects of articulating a basis for an "efficient causal" relation between the categories that is (a) in the spirit of the system and (b) in a significant way persuasive to professional philosophers.**

As I suggested in my second response, I think there is an interesting case for taking the relation of 'definitional grounding' to be the counterpart of efficient causation among the categories. Let me elaborate on the idea.

The core of the notion of efficient causation is asymmetric relation of ground to consequent (as Kant pointed out): This being posited, that follows; or, Unless this is posited, that does not follow. A relation of this sort is to be found amongst universals, provided we help ourselves to the notion of real definition. In fact, there are two such relations. (This may be of some relevance to the development of the system).

For each (non-fundamental) universal F, there are real definitions of the following sort:

To be an F is to be a G that is H.

To be F is to be a universal that is G...

The first pattern is more familiar. To be a man is to be an animal that is rational; to be gold is to be a metal with atomic number 79. So the universal man depends for its definition on rationality, and gold depends for its definition on atomic number. My suggestion in my initial response was that the universals that figure in this sort of account of what it is to be an F should be reckoned as (analogical) efficient causes of the universal F.

Of course this response depends on taking the notion of a real definition seriously. If the only constraint on an adequate definition is that it be extensionally correct, then the notion of 'definitional' dependency is not asymmetric. Man can be defined in terms of animality; but animality can also be defined (disjunctively) in terms of man. The view I was suggesting requires that we exclude the latter

definition as spurious. It may be extensionally correct, but it fails to specify *what it is to be a man*.

The second pattern is less familiar, but it seems to me that it is also available. Take the universal spatiotemporal particularity. In accordance with the first pattern of definition we would say:

To be a spatiotemporal particular is to be a particular that exists in spacetime,

In which case the (analogical) efficient causes of the spatiotemporal particularity would be spatiotemporality and particularity. In accordance with the second pattern of definition, we would have to ask, not "What is it to be a spatiotemporal particular?" but "What is it to be spatiotemporal particularity, i.e., that particular universal?" In that case the answer would presumably be:

To be spatiotemporal particularity is to be a universal that is instantiated by particulars that exist in spacetime.

On this account, the universal depends for its definition on universality and perhaps instantiation as well as on particularity and spatiotemporality. Indeed, every universal will have universality as an efficient cause.

I don't know which of these two notions of definitional priority is more useful for your purposes (if either is at all useful). But as I say, these relations strike me as the best analogies within the domain of universals for the relation of efficient causation.

**Q4. Where can one find the best statement of the case against what I call the "pre-modern view of teleology" To what extent is it just a fundamental commitment?**

This may only reflect my ignorance. I am not a scholar of ancient philosophy. But I can find no extended discussion of the issue in any of the major authors. Let me try to be clear about what is at stake. The "pre-modern" teleologist maintains that the best answer to the question "Why is it the case that P?" is sometimes "Because it is good that P be the case" or "... good for X that P be the case", where this explanation is not backed up by the postulation of an active being who seeks to bring about the good by means of efficient causes.

Aristotle appears to have accepted something along these lines. But even for Aristotle (if I'm not mistaken), whatever has a final cause also has an efficient cause. So in the end Aristotle would have rejected the teleological account of the

existence of contingent beings, since this would presumably be a case of final causation without efficient causation.

The issue was actively discussed in late antiquity. The Epicureans largely rejected final causes altogether. The Stoics accepted them. But this ancient discussion was (so far as I can tell) not so much refuted as *erased* by the advent of Christianity. The Christian tradition of course retained the notion of a final cause. But in this context the notion is always understood in "modern" terms—i.e., as a cause whose 'force' derives from the desire of an active being for the end in question. The debate over teleological explanation in modern science is for the most part a debate about the propriety of *this* sort of teleology. There was a debate (mainly within Chemistry) about the propriety of attributing 'ends' or 'aims' to inanimate substances that appear to exhibit goal directed behavior: (Fire rises; bodies fall.) The usual story is that this tendency (identified in the modern period with 'the Schoolmen') was undone by the rise of the mechanical philosophy. My own impression is rather that the idea objects have intrinsic *teloi* was simply absorbed into modern science (in modified form) as the notion of a disposition. This notion is not deeply teleological. To say that material objects are disposed to attract one another with a certain force is not to say anything about whether this is good or bad for them. But this invocation of fundamental dispositions is compatible with nearly everything the Schoolmen wanted from the notion of a substantial form. It is apparently a basic property of electrons that they attract some things and repel others. This is not a mechanical affection; it is an intrinsic power or potentiality. Modern physics is happy to traffic in such things. But they are not really instances of non-psychological teleology, since they are not really teleological at all.

So the short answer is: I don't believe that the notion of non-psychological teleology was rejected in response to argument. It dropped off the map when Christianity made it plausible that all final causes were backed up by an active being, and by the time Christianity had receded as a central presupposition of philosophy, science had assimilated what was useful in the notion of a final cause, recasting it as the secular and altogether non-teleological notion of disposition or power.

This is not to say that the rejection of non-psychological teleology is an unthinking prejudice of contemporary metaphysics. It seems to me that solid reasons can be offered in support of the idea. If I had to defend my own rejection of the notion I would say the following:

The idea that things happen because they should cannot be ruled out a priori. There is nothing incoherent in the notion. But causal/explanatory claims must be backed up by regularities. At a minimum this is an epistemological point. We have no basis for asserting a causal/explanatory claim about particular states of

affairs of the form 'A is P because B is Q' unless we have evidence of some regularity of the form: 'In general, when something is Q, something is P'. In particular, we have no basis for asserting a teleological claim of the form 'A is P because it is good that A be P' unless we have evidence for a regularity of the form: 'In general, when it is good that X be P, X is P' or for some more complex teleological regularity along these lines. But the fact is that we have no evidence for any such regularity in the inanimate domain. What happens in nature is mostly indifferent, sometimes good and sometimes bad. And given that that is so, an epistemological condition for asserting claims of pre-modern teleology just isn't met.

Here is something we must resist: Some phenomenon is considered and found to be good. We search for an efficient cause and come up wanting. And from this we infer that the explanation must be teleological. The phenomenon occurred because it was good, and there's an end on't.

This sort of move would be warranted only if we had some independent reason for thinking that the phenomenon must have an explanation, or some independent reason for thinking that in general, good things tend to happen (even when no one is seeking the good in question). Absent that, it will always be more plausible to say that for all we know the phenomenon has no explanation.

The rejection of impersonal teleology is an empirical matter. It is not grounded in any dogmatic commitment to mechanism or to explanation by means of efficient causes. Consider an analogy. We notice that when two bodies are brought into contact, they move towards thermal equilibrium. We notice that this is true, not just in isolated cases, but in every case. Now it so happens that we can offer a mechanical explanation of this phenomenon. But suppose we couldn't. Suppose that every attempt to get behind the phenomenon came to nothing. Then we might be forced to accept it as a basic law that isolated systems brought into contact tend to thermal equilibrium and to explain particular instances of this transition by reference to this law. This would not be mechanical explanation. But it would be an acceptable scientific explanation nonetheless. Indeed, it would have a certain resemblance to explanation by means of final causes. Why did A decrease in temperature? Because it was the hotter part of a system in disequilibrium, and such systems tend (monotonically) to equilibrium. Here the final state is invoked to explain a bit of local change. Of course the final state is not a matter of good in this example. But apart from that it has the 'future directed' character of teleological explanation. The point is that none of this is objectionable to a scientifically minded philosopher. What is objectionable is the invocation of this sort of explanation in the absence of statistical evidence for the general law that underlies it.

So we reject impersonal teleological explanations because we believe that as a matter of empirical fact, the telic regularities that such explanation presupposes do not exist. The only way to revive the notion (it seems to me) is to make the case for telic regularities. You need not show that this is the best of all possible worlds. You need simply show that in a large number of inanimate systems, things tend to the best, other things being equal. If that could be established—and if an explanation in terms of intelligent agents could not be supplied—then the door would be open for impersonal teleology.

## **Review 9: Michael Scriven**

### **Introduction**

This is a sustained, serious, and talented work in the honorable tradition of metaphysics, addressing as it does the great problems of the nature of being and the nature of our understanding of the world. It is original in the most important aspect of its main theme, because it connects these two mysteries directly in a novel way. Understanding is a cognitive achievement, and the goal for which we strive in our intellectual dealings with the universe, and it is well worthwhile to consider whether our understanding of understanding, further analyzed, might not provide us with a vital foothold in climbing the long-resistant rock mountain of metaphysics. Monius does us all a service in pushing hard on this front.

Moreover, he writes with great clarity, especially considering his difficult and abstract subject-matter. Clarity includes the use of very good examples to illustrate points; the examples here are often interesting in their own right as well as highly relevant and illuminating. To clarity must be added brevity, for the topic is huge and virtually none of his predecessors have compressed it to the degree he does—60 pages—without any sense of being rushed or forced to use shortcuts that weaken the strength of arguments. The avoidance of jargon, although not complete, involves only a few terms he does not define, and they are ones whose meaning could reasonably be expected to be understood by readers of works in the metaphysical tradition (finality, hylomorphic, arche, telic, etc.) In these respects, but not in these respects alone, this monograph is outstanding.

Apart from his text, the work contains a series of diagrams illustrating the development of his conclusions, and these definitely help the reader understand the increasing complexity of his development of a solutions. The idea of illustrating a work of very abstract metaphysics is relatively novel in itself, and raises thoughts about how Kant or Hegel would have responded to a request from their publishers to add illustrations. The need to do so might well have led to some clarification of the concepts they used, as we can see from the present work.

There is a positive and a negative side to his conclusions. On the negative side, he makes a plausible case for rejecting most of the usual suspects in the search for a foothold—the theistic, Spinozistic, and what he calls the Many Worlds approach. His reasons for this are impressive; by and large not novel (nor would he claim that they are), but an excellent selection from those available, and highly consistent with—indeed, interwoven with—the development of his own position.

On the positive side, this is clearly a work built on—although diverging strongly from—the Aristotelian tradition. For example, it accepts without serious

reservation Aristotle's fourfold typology of causation. In general, the author displays considerable scholarship in his considerations of traditional solutions or attempted solutions to the problem of the nature of Being. There are many references to other great figures in the history of metaphysics, notably Hegel, Kant, Leibniz, Spinoza, Schopenhauer, Plato, the Aristotelian commentators, Reductive Materialists, and even Wittgenstein. These are often critical references, but the work as a whole is strongly oriented towards a constructive approach and there is no meanness about the treatment of others.

Finally, a word about my approach to this review. I do not start with any assumptions about the necessity for or impossibility of constructive metaphysics, thereby completely disassociating myself from, on the one hand, those committed to support all work in metaphysics on general ideological grounds (often mere anti-positivism), and on the other hand, the positivistic and neo-positivistic positions, which dismissed all such efforts (with essentially no realization that doing so involved a metaphysical stance of their own). The case must be made for any metaphysical approach but no more and no less than the case must be made for a work in normative ethics or logic or the philosophy of science. There are useless and/or logically flawed exercises under all these headings; and there are also great works. However, in order to qualify as one of the latter, certain specific hurdles have to be overcome in each case.

In the case of metaphysics, there are two great obstacles. First, there is the level of abstraction at which most of the discussion proceeds. A high level of abstraction, even when undertaken in the name of analyzing reality, carries with it a high risk of loss of contact with reality. It is hard to be sure that slippage between the abstract concepts and the phenomenological world has not occurred and that a secure hold on truth about that world has not escaped because of that loss of grip.

Second—a point that can be seen in a way as a mirror image of the first point, but independently identifiable—there is a problem about counter-intuitive conclusions. The problem is whether to go with the intuitions or the argument, and the argument is sufficiently abstract that it is very hard to be so certain of its validity as to overcome the intuitions. For example, in the classical version of the ontological argument, one's intuition is that one can't define God into existence; yet the argument appears sound that one can. It takes a great deal of work to settle this tension and of course the settlement is seen as going in opposite directions by well-qualified analysts. This problem is exacerbated if, as in the present work, the abstract conceptual structure is itself built upon intuitive foundations.<sup>1</sup>

In the case of this specific work of metaphysics, the preceding illustrative

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<sup>1</sup> For example, Monius refers to (bottom of p.6): "...our intuition of the contingency of finite particulars..."

analogy—the analogy with the ontological argument—is especially pertinent because Monius’ argument can be seen as in several ways similar to that in the ontological argument. We shall consider below whether the analogs of the difficulties with that classical argument are insuperable or not.

The term ‘formal logic’ applies both to syllogism theory and to mathematical logic. It can also be applied, by extension, to much of the reasoning in *Coming to Understanding*, and in some other works of metaphysics where the reasoning is putatively deductive and the subjects and predicates highly abstract concepts. This leads us to another way of putting the second major problem with metaphysical theory: it can be seen in terms of a general problem that afflicts formal logic. It is sometimes referred to as the ‘coding/decoding’ problem. The difficulty concerns, not the logical validity of the transformations and implications within the formal language, but the debatable steps to encapsulate the original problem or situation into the formal language, or the sometimes equally debatable steps at the end, where the formal solution must be converted back into the original language in order to express it as a solution to the original problem which was of course in a certain base language (possibly highly technical in its own context, but not in terms of logical vocabulary). The coding/decoding problem was the fatal flaw in syllogism theory as a general logic; there were too many artificial devices required to encode the developing zoo of cases of awkward applicability, e.g., the examples from the logic of relations. Interestingly, it was also a fatal flaw in the logical reconstructions undertaken by—and a major component in—the logical positivists and the neo-positivists, e.g., from Carnap and Reichenbach to Suppes and Jeffries. Although this is hardly a proof, it is highly significant that noone now quotes or remembers the major conclusions based on those formalizations of such concepts as probability and causation. The coding/decoding obstacle to a formal approach also represents a substantial problem for the present work, for reasons that are also developed below.

In what follows, we begin with a fairly extensive commentary on a number of points that follow the work’s sequence, and then try to pull all this together in a final section.

## **Detailed Discussion**

Note A: The axioms and (most of) the theory of categories come near the end of *Coming to Understanding* and hence are (correctly) thought by Monius to represent an encapsulation of much that precedes them. Accordingly, I have chosen to go after their foundations first, rather than to begin with their final formulation, as my way of focusing on them as “the heart of the system.” To engage the system of *Coming to Understanding* requires much more than analysis of the axioms, and it

takes much longer. For example, they do not contain the definitions of the terms they use, such as understanding; but the quality of those definitions is crucial to the validity of the axioms. And the axioms have nothing about contingent entities in them, only about the necessary universal of Contingency. Nor does the system of Categories contain the latter: but a major purpose of *Coming to Understanding* is to explain the existence of contingent particulars. One must surely look at what Monius takes to be an explanation of contingent particulars, before one can appraise the axioms or categories.

In some ways, the list of six conditions on any entity that is to explain contingent existence (p. 11) is more informative about Monius' approach than are the Axioms.

Furthermore, if we are to 'engage the system' that Monius proposes, we may well think it's necessary to consider the validity of such systems of metaphysics as he proposes. There are some general issues that affect the status of the Axioms as part of a metaphysical system, issues that must be discussed before one can get down to the particulars. The reader will have no difficulty in recognizing the relevance of these discussions in much of the earlier part of the work *Coming to Understanding* to the Axioms and the Theory of Categories.

NOTE B: Asterisks across the page are used to indicate a shift to another topic. Since all are rather intimately connected, I have not sought to find separate names for these; they are not quite sections, but more like shifts of perspective, quite often on the same topic.]

We begin by arguing that Monius does in fact build his work upon an intuition that is open to question. Here is the passage at the end of which he first sets this out (p.2). I have added bold italics to the assumption (Monius never uses bold italics):

The appeal to natural law and antecedent events cannot explain why there is something rather than nothing, why the supposed Big Bang—or at least its original physical antecedents—occurred, why the original fundamental laws of nature take the particular form they do, why things are intelligible at all, whether there is any large-scale purpose embodied in the details revealed by science. These questions reach beneath anything that can be accounted for by embedding events in law-like patterns, ***yet they are manifestly real questions***. Such questions do not ask for a causal explanation or a statistical reckoning of an event or series of events in the world. They concern reality as a whole, and its purpose if any.

While these questions are indeed intriguing, and perhaps ‘manifestly real,’ it is not clear that they are eventually or latently real, i.e., after sophisticated analysis. Monius does go on to support his position further, later on the same page and on the next page, as follows:

The structure of Being is not the topic of scientific investigation. Science is focussed on individual beings of this or that contingent kind. So we should not expect a scientific answer to questions like: What is the structure of Being? Why is Being intelligible? What is the purpose, if any, of the exemplification of Being in individual beings? Many conclude that there is no answer to these questions, just because there is no answer forthcoming from natural science. For they have no idea of what an account of Being would look like. Because of a lack of intellectual options, they reject the question of why Being is exemplified, i.e. why things which are contingent, which therefore do not themselves account for their own existence, *happen in fact to exist*. Yet much of our local scientific knowledge addresses precisely that sort of question concerning contingency, albeit directed locally at this or that type of event or object. Why banish the same sort of question concerning contingency when it is asked globally rather than merely locally?

His position, in rejecting what we will call the Dismissal Argument, is well argued here and, as he says, lies at the very heart of most metaphysical enterprises. However, I believe that he rejects the Dismissal Argument (DA) too quickly. Note that his explanation of the DA, in this section of the text, is psychological rather than substantive “Because of a lack of intellectual options, they reject [these] questions...” In a moment, we will attempt to provide substantive grounds for the DA. First, however, we must provide the further step in his argument: he undertakes to provide just the missing intellectual option, for lack of which he sees the DA as being adopted by those with a smaller repertoire (pp. 5):

Here is the sort of explanation that would do what is required. There is something—Being itself—that exists necessarily. It has the contingent capacity to issue in particularity, the capacity to be instantiated in particularity.

To this, the sceptic is likely to reply that: (i) it’s not clear that this state of affairs—necessary Being—provides an explanation rather than a merely verbal description, because it’s not clear that a necessary Being can function as a cause or creator; and

(ii) if something like this is allowable as an explanation, then parsimony suggests we should simply elect the congerie of contingent beings to this status.

But Monius has a reply to both parts of this suggestion. Ad (i): the explanation of how a necessary Being can bring about the existence of contingent beings is developed through much of the work, and we will have some comments on this later. Ad (ii) which he provides after recapitulation of the DA position as he sees it, is to be found earlier on page 5:

The puzzle is deep enough that many are inclined to react by rejecting the very demand for an explanation of contingent being. The reaction may take the form of insisting that to *understand* that mere beings are contingent is to recognize that there can be *no* explanation of why there are mere beings. This, however, is just to recapitulate Leibniz's mistake of supposing that all explanation must ultimately provide absolutely sufficient reasons for what is being explained, i.e. reasons such that it is absolutely impossible for the thing being explained not to exist given those reasons. Against Leibniz, teleological or purposive explanation renders an outcome intelligible without absolutely guaranteeing it. As we shall see, this is the very kind of explanation required to explain *contingent* existence

Now this is not entirely persuasive, because the dismissal of Leibniz is not equivalent to, or sufficient for, the dismissal of the DA position. Leibniz' view about the nature of all explanation is indeed mistaken, and it is a strength of Monius—demonstrated in detail later in *Coming to Understanding*—that he has understand the failure of both the sufficient condition analysis of causation and the necessary condition. However, one and perhaps two positions survive the armament of the above paragraph.

First, it is certainly possible to argue that some questions, legitimate about each member of a collective, make no sense when asked about the entire collective. An example is the question, asked of members of a group of child refugees: "Who are your parents?" Hence we cannot dismiss this move by saying that it involves Leibniz' mistake about the analysis of explanation. One may simply conclude from the parallel between such cases and the chain of causation connecting contingent beings that it cannot make sense to ask for the explanation of the existence of all contingent entities. While teleological explanation *can* provide understanding of something without 'absolutely guaranteeing it' in familiar cases, it does not follow that it makes sense as an explanatory property of a necessary being.

One can imagine saying to the DA advocate: "Look, although you're never going to find a standard causal explanation of everything, there's another

possibility: you may identify something whose existence does not require explanation at all, because it necessarily exists, which can stand in a purposive relationship to all contingent beings.” It is not unreasonable to argue that this is both a more complex and a less plausible solution to the problem of existence than the mere recognition of the impossibility of explaining everything in the way in which we are used to explaining each thing. From examples like the parenthood one, we know that there *are* simply cases where a particular question will not make sense of a collective although it makes perfectly good sense when asked about each member of the collective. It won’t do to dismiss this logical possibility as based on a mistaken notion of explanation; it does not depend on any notion of explanation at all.

The DA advocate might sum his or her objection to a Monius-style approach as follows: “You want to postulate something that exists necessarily in order to explain everything. Now, I don’t really understand the notion of necessary existence, let alone how it could explain ordinary existents, but if there is to be such a thing in the allowable entity zoo, I nominate something for the post that I understand quite well, namely the universe which we at least partially understand. Better the devil we know fairly well than the Being we don’t know, and to which we are ascribing teleological powers in addition to necessary existence. After all, you do say that Being is everything that exists, so at least the universe is part of Being. I’m just saying, let’s make it all of Being. No reason why a collection of contingent objects cannot have properties that no one of them has; look at properties like meaning, which attach to many series of dots and dashes in Morse Code, although not to any dot or dash. Thus, the universe might have necessary existence, even though nothing in it does.”

Second, there is the slightly variant possibility that the DA advocate might offer a deal along the following lines: “Look, here’s what you say, and I’m going to propose a short cut to accepting it. You say (p. 5): “Here is the sort of explanation that would do what is required. There is something—Being itself—that exists necessarily. It has the contingent capacity to issue in particularity, the capacity to be instantiated in particularity. This capacity happens to be realized for the sake of a distinguished end, namely that Being itself should be comprehended.” Now, the deal I’m offering is this: why not take the totality of the contingent universe as the Being that necessarily exists, on the grounds that it is logically demonstrable that such a being must exist if anything exists, and we know that the condition is met? Then we have your necessary Being, I can understand it without having to postulate something I don’t understand, and we can comprehend how everything develops from the Big Bang onwards in the usual way, see it as the unfolding of the purpose you mention.”

Now, we know that Monius would not in fact accept this offer, because the

totality of contingent beings does not have necessary existence in the sense that Monius, and others before him, have taken to be the core notion. In so doing, they rely on their intuition that necessary existence cannot inhere in an ensemble of contingent objects. However, that intuition leads to some non-intuitive conclusions that the DA's intuition finds unacceptable. One must see these alternative intuitions as genuine alternatives: the 'scientific cosmologist has an imagination that is very rich about forms of existence and categories directions that the 'speculative cosmologist' as Monius describes himself, can hardly contemplate, e.g., existence in more than four dimensions, the 'reversed causality' of the so-called 'advanced potential' hypothesis, etc.<sup>2</sup>

But, reverting to the original complaint, it must be seen from the beginning that the DA position does not rest upon Leibniz' error about the logic of explanation. On other errors, perhaps; but not on this one. In any case, while the DA position, with or without the suggested alternative definition of the necessary being, may or may not rest on some other error about explanation, it does have offsetting virtues in terms of Ockham's Razor<sup>3</sup>. Hence it must be considered as an alternative to the ontological and methodological mysteries of Monius' Necessary Being, which surely requires great intellectual capacity to grasp at all, even if dedicated to comprehension. And the simpler alternative (listed as the first DA position above, which avoids the identification of the necessary Being with all beings) is even more attractive to the intuitions of a scientific cosmologist, someone who is by training an ontological minimalist.

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This is an appropriate moment to comment on a great strength of Monius' position with respect to the purposive element in Being. He uses an analysis of purpose in terms of which "the purpose in question is not the result of anyone's intended plan... Being itself... has no will, no intellect, no drives and thus no plans" (p. 6). He thus cuts off (almost) any move to theism, and he does it by using a much more sophisticated analysis of purposive explanation than his predecessors, in metaphysics and in the philosophy of biology and the philosophy of psychology, one that is entirely consistent with the best work of L. C. Wright and others in the last few decades. Interestingly enough, he goes beyond that position, widely accepted in the philosophy of biology sub-community of specialists in the

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<sup>2</sup> In my own case, I have served on both sides of the border; I won a world competition for an essay on the age of the universe, but have also written extensively about the classical metaphysical arguments in natural theology.

<sup>3</sup> I use the Cambridge Dictionary of Philosophy spelling.

philosophy of science, in an important way, making a move that I think is original with him, in its sophistication (although not in terms of the quite commonly voiced theological position of an expressed hope coupled with bad logical analysis). He brings in the notion of a good that must be necessarily involved in the notion of purpose. Just as he avoided bringing in a purposer as a necessary logical element in the notion of purpose, so here he successfully avoids the trap of supposing that the good thus involved must be a moral good (p. 6), and hence avoids the notion that his Being must be the source of ethics, a fatal blunder that creates massive difficulties and solves none.

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We turn now to some further consideration of Monius' concept of necessary existence and the possible functions of a Being of this kind. It is clear that many of our abstract concepts, e.g., all of the Categories (p. 8) are "... fundamental kinds of Being. As such they are necessary universals, and so they are necessary existents." Almost immediately, he refers to: "...the candidates that are plausibly taken to be the Categories—like Particularity and Universality" So here are two examples of necessary existents, in his sense of that term, a sense he shares with many of his predecessors; of course, Being itself is another. Necessary existence is clearly a property of a select group of highly abstract meta-concepts.

Now, the main conclusion of Monius' work is to provide an answer to the question (p. 4): "Why then do contingent beings exist? The speculative cosmological hypothesis to be defended here is that contingent beings exist so that Being itself can be grasped or understood." If this hypothesis is true, then the nature of the universe and our reflections on it must provide some clue to the existence and presumably nature of the Supreme Being, an impersonal but necessary existent. Monius would say that he has in fact explicated the inferences from the totality of contingent things and thought to Being, thereby—amongst other things—avoiding the traps of the teleological argument with its Intelligent Planner. What that leaves us with is Being as a telic explanation of beings, but not as a causal explanation (*in fieri*) of beings<sup>4</sup>. Hence we do *not* have an answer to the kind of question about all contingent beings that we *do* have about each of them. Hence it appears we have *not* fulfilled the apparent promise to provide just the same kind of explanation of all things that Monius' intuition tells us we are entitled

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<sup>4</sup> Monius is careful to say only that Being: "...has the contingent capacity to issue in particularity, the capacity to be instantiated in particularity." He steadily avoids any suggestion that Being provides the same kind of causal explanation of everything that we find in science as the cause of each thing.

to demand, when we ask:

...why things which are contingent, which therefore do not themselves account for their own existence, *happen in fact to exist*. Yet much of our local scientific knowledge addresses precisely that sort of question concerning contingency, albeit directed locally at this or that type of event or object. Why banish the same sort of question concerning contingency when it is asked globally rather than merely locally?

Another way to put this concern is in terms of a common intuition, akin to the one that which leads us to suspect that the ontological argument is verbal magic, the intuition that the kind of existence that pertains to concepts is not the same as, and cannot generate, i.e., bring about, i.e., explain, the kind of existence that pertains to things in re and substances in esse. (In fact, carefully stated, the ontological argument can bypass this problem, but in a way that still leaves the atmosphere of verbal legerdemain, and a way that is not taken by Monius, indeed is, I think, seen by him as antithetical to his approach.)

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In the above, we are taking seriously a kind of argument from common sense that is all too often dismissed by metaphysicists as ‘missing the point’ of some key metaphysical definitions or concepts or rules of inference. However, this dismissal is, I suggest, inappropriately so defended. The contention here is that the objections just raised are based, as are Monius’, on different intuitions, at points where differences are equally defensible. The fact that one family of choices at these choice points characterizes physical scientists (on the whole) and the other characterizes traditional metaphysicists (on the whole) does not constitute additional grounds for metaphysics to ignore the other, any more than the reverse is true.

Now, it is important to note that Monius himself has adopted a position that represents a considerable tightening up of the ‘rules of engagement’ compared to most writers in the great classical tradition in metaphysics. We have already commented on two or three respects in which he explicitly rejects less accurate analyses, e.g., of goal-oriented behavior, and of (efficient) causation (elaborated in the discussion of the fourth axiom, pp. 43–47). So what is being suggested above, while it is intended to circumscribe some of the apparent implications of Monius’ system, is not an attack on metaphysics as such. A great deal of Coming to Understanding is immune to the differences of intuition we have been discussing; and even the part that is dependent on them still represents an important

contribution to the classical tradition. The present writer's perspective is, however, that significant tidying-up remains to be done. When complete, the resulting metaphysics would be represented more accurately as an exploration of certain conceptual schemes concerning reality, rather than—or perhaps as a special species of—answers to the every-thinking-person's list of deep questions about the universe. It does not provide an answer in the same terms that the questioner has in mind when asking the question in the common language.

Let me reinforce this position by an analogy with mathematics, which is also by way of being a prolegomenon to other comments on what Monius describes as the axioms of his metaphysical system.

Reasoning in the greater part of mathematics adheres to the strictest standards of deduction, and the concepts in mathematics are highly abstract: in these respects, it appears that *Coming to Understanding* parallels mathematics. Moreover, it is typically possible to draw conclusions in mathematics and test them directly; theorems about prime numbers, for example, can be tested by computer searches of the known primes as substitution instances of the theorem. This kind of testing is not in general possible in metaphysics. This is the first difference to which I wish to call attention.

It follows that the strictness of the deductions is of primary importance in establishing faith in the metaphysical conclusions. Now, despite the great care that Monius takes in this matter, there is an important difference from mathematics in the extent to which *interpretation* is involved at many steps in the proofs in *Coming to Understanding*, e.g., in filling in the concepts that label the blank spaces in his great conceptual map of the Categories, a process that occupies many pages; examples are provided in the footnote. This is a second significant difference from mathematics.

A third difference brings in the Coding/Decoding problem. The entities that mathematics concerns are numbers, vectors, sets, etc. None of these are identical with any physical object, although they may be instantiated by objects in certain relations; they are abstractions from physical entities. But the entities that metaphysics concerns are both abstractions and contingent objects themselves. To the ontologist, or at least to many philosophers considering ontological issues, this suggests that there may be a chasm between reliable formal systems such as mathematics, and speculative formal systems such as metaphysics—a reality gap. On this view, we can expect that the great systems in metaphysics are conceptual maps, often developed with considerable rigor, possibly matching that of mathematics, but we must *not* expect that one can read off from them results that can be tested 'experimentally,' where by this term we mean substitution of real objects for some of the concepts in the schema.

Now, this is not to pick out metaphysics for unfair criticism. We must keep in

mind the stunning failure of the great systems of mathematical logic, from Leibniz to Quine, to produce *any* results of significant philosophical interest, despite their claim to be analyzing concepts of key significance in philosophical disputation, the concepts of proof, inference, premise, number, etc. And of course, despite the confident support of extremely distinguished philosophers. This failure lay not in some errors in the deductive processes inside the system; it lay entirely in the failure of the formal version of the real concepts to encapsulate the richness and robustness of those notions from actual practice in reasoning. That failure was compounded by, and could not be reduced by, the decoding problem which turns up after a ‘solution’ was found within the system. Even today, the failure to discover something important is disguised by terminology such as ‘the paradoxes of (material/strict/formal/etc.) implication’ for what should properly be called ‘the errors of these attempts at formalization.’

How is this relevant to our present concerns with the validity and applicability of Monius’ system? That system, set out in *Coming to Understanding*, *Coming to Understanding*, is very like a big formal system in 20<sup>th</sup> century symbolic logic, beginning with the Principia Mathematica and ending with the minutiae of the relevance logic systems of the 1990’s. Few symbolic logicians or metaphysicists would embrace this parallel, but it seems to me that it has much to recommend it, seen from a distance by someone with degrees from and publications in both camps.

After all, looking at these matters of success and failure, not in terms of the internal standards of specialists in each field, but from the metaphilosophical outside (as much as one can do that) there *is* something to be explained: the failure of credibility of metaphysics and the failure of plausible insights from the symbolic logicians. And the account just provided here does go a long way towards making those failures understandable.

Let me conclude the comparison by reference to the Godel theorems. They show us something very important about formal systems in mathematics and mathematical logic, namely that they cannot fully encapsulate the meaning of proof. There is a fundamental notion of proof which we intuit to be the correct one, even when it is in conflict with the best attempted formalization of it, and it is this intuitive conception that drives the attempted formalization as well as its refutation, an interesting double role. I suggest that it is a similar fundamental notion of proof that provokes some scepticism about the truth of Monius’ great theorem, that “contingent beings exist so that Being itself can be grasped or understood.” (p. 4).

Can we in fact locate a place where the encoding or decoding is at fault? Not necessarily; this cannot be done with the Godel theorems, and I do not think it can be done here. The failure is in the subtle mismatch between the notion of existence

as we normally understand it, and the implicit formalization of it in *Coming to Understanding*, something which spreads throughout the system. The following imprecise way of putting the point may illustrate this claim, although it does not prove it. Necessary universals exist, in what might misleadingly be called one sense of ‘exist,’ the Summum Genus of Being amongst them, as Axiom 1 asserts. Contingent particulars exist, in what we will *pro tempore* call another, albeit overlapping sense of exist. But these senses are subtly different; one refers to intangible concepts, the other to material objects. Formally, and narrowly, both exist in sense in which existence is the opposite of non-existence; and that is enough for existence theorems in mathematics to have ‘tangible’ instantiations. But those instantiations are still purely formal, purely abstract. When we try decoding them, we find all sorts of problems; the theory of probability does not apply exactly to material roulette wheels, decision theory does not apply exactly to investment strategies, even arithmetic does not apply in a clear way to fundamental particles. The same certainly appears to be true with metaphysical systems. In the case of *Coming to Understanding*, it is not clear who can really be said to have ‘grasped and understood’ Being itself through study of contingent things. Presumably Monius feels this applies to him; but it is only a dispositional claim, asserting only that Being itself *can* be so understood, not that anyone in particular, or anyone at all, will in fact understand Being by contemplating and reflecting on contingent beings and this, and perhaps other, metaphysical analyses.

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Are there any implications of these comments for the improvement of *Coming to Understanding*? It is a work complete in itself, in the sense that a work of systematic metaphysics does not have to tackle all questions about the legitimacy of the metaphysical enterprise. But certainly its persuasiveness to many would be improved by following through the ‘arc of Coming to Understanding’ with some specific examples. And perhaps, if we may be so bold, by considering some of the preceding remarks, which will occur to many in tacit or explicit form, and providing commentary, indeed rebuttals where possible. And we are going to develop a number of lines of comment in what follows that may deserve direct consideration.

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Now we come to the great question whether the system, i.e., Monius’ Being with its properties (Categories), can provide “an explanation of contingent existence, an explanation which does not covertly treat it as necessary.” (p. 11)

This would be the ultimate payoff from the Axioms—the ability of the system to do what no previous metaphysical system has, according to most philosophers, succeeded in doing. The last clause in this quotation, if it can be justified, serves to exclude the Dismissal Alternative’s suggestion of treating the contingent universe as a necessarily existent Being.

To achieve this result, the Being must meet the six conditions set out on or about page 11. Here we see an appropriately cautious phrasing that avoids the claim of causation, using instead the notion of instantiation. However, that means Monius is not providing the kind of answer to the question, Why do contingent beings exist? that is provided for each contingent being by the scientific approach. It is for this reason that I think we must be cautious about accepting *Coming to Understanding* at its face value, as an explanation of “the totality of contingent beings” in Monius’ words (p.11). Or, more charitably, perhaps one should simply qualify one’s acceptance by saying that the system provides, “...a *kind of explanation of contingent existents.*”

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Now it is time to consider Monius’ account of understanding, the other great pin in his metaphysical structure. He defines this on page 13:

...understanding is the presence of the object of understanding to a mind adequate to grasp what it is to be that object... it presupposes the existence of what is understood.

Alone amongst the key notions in *Coming to Understanding*, this one is not well defined. Let us consider a simple example, the case of understanding how a microwave oven works. Suppose that Smith understands this. Now imagine that he is in the kitchen, looking at the microwave oven. Presumably it is now present to a mind adequate to grasp what it is to be a microwave, i.e., that object. However that presence is not understanding. Understanding is the state of Smith’s mind in such a situation, not the presence of the object that is understood. Moreover, there is a great deal to be said about what that state of mind has to be in order to qualify as being understanding. Understanding is a complex cognitive—sometimes also an affective or psychomotor—state that centers around the dispositional ability to deal with unrehearsed as well as rehearsed questions or problem situations concerning the topic or entity said to be understood. In particular, (i) understanding something is often less than grasping what it is to be that something; and (ii) understanding is often considerably more than grasping what it is to be that something. Examples follow.

- (i) Understanding a microwave is not much like grasping what it is to be (like) a microwave because a microwave does not have a persona and it's hard, perhaps even inscrutable, for an entity with a persona to identify with something that lacks one. In this respect, the proposed definition calls for too much.
- (ii) Understanding a microwave certainly does involve knowing the answer to a good many questions about how it works, what level of what kind of power it requires to run, what kind of emissions it produces, and how well it cooks what kind of food. In this respect the proposed definition calls for too little.

Now, this issue of the definition of understanding is extremely important, for at least two reasons. In the first place, although it is important because it correctly suggests that human relations, the notion that understanding something, e.g., the pain of a divorce, the love for a child, may plausibly be identified with grasping what it is like to be in that condition oneself, it fails in many other, perhaps most cases. For example, in any artefactual relations, or in relation to a foreign language or a technical treatise, the 'identity-switch definition' as we may call it, is simply not applicable or not enough or too much. This suggests that the 'coming to understanding' is going to boil down to 'coming to a certain kind of understanding' not coming to understanding in general. Monius himself refers to this as 'a sense of understanding' at one point, although the implications of this restriction are not further discussed. This is especially important because the coming to understanding that is involved in coming to understanding why anything at all exists, or why the particular things that exist happen to exist, the kind of understanding with which we are especially concerned in metaphysics, is a particular kind of understanding that is not, for any obvious reason, covered by the identity-switch definition. So that definition won't do to solve the great problems of metaphysics, which was the purpose of the enterprise.

The second reason for thinking this definition is important is that it brings in, with the final clause, the requirement of preexistence. This raises the spectre of 'defining into existence,' the bogeyman of the ontological argument. We shall have to be sure that this sleight of hand does not occur in later development of this notion.

Notably, in the ensuing pages, where Monius pursues the notion of understanding Being itself, he reverts to the generic and generally understood notion of understanding. He does not use the restricted notion in his definition; less harm is done thereby. But there remains, necessarily one might say, some grounds for concern that the understanding in Coming to Understanding may not be all that

we normally take understanding to be. Understanding is a rich and most important notion, especially in that it transcends mere knowledge, and reaches into the domains of empathy and emotion far more than simple definitions of it suggest; but also because it has a much higher survival value than any set of items of pure knowledge. Monius' definition hints at excursions into those arenas but needs tightening up and extending to adequately convey this richness and importance.

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We have now arrived at the first discussion of the Categories, which is an historical overview, outlining Monius' strong deviations from but respect for the Aristotelian account. It is beside our present purpose to discuss the historical quality of this treatment, beyond saying that there are no obvious errors in it, and the critique of Aristotle, as well as of his commentators, and successors such as Kant and Hegel, seems acute and plausible. The eventual development of Monius' own schema of the categories clearly qualifies as an original and interesting alternative approach, a top-down rather than bottom-up approach as we might say in the jargon of administrative science. Not only does it invert the traditional approach, Porphyry's Tree being a minor exception, but it is clearly much more tightly argued than any of its predecessors—and considerably more elaborate, involving complex cross-connections developed in a systematic and plausible way. However, there are places where the use of language involves a certain arbitrariness of the kind that was discussed earlier as exemplifying a slight ambiguity in the logical tightness of metaphysical inference by contrast with mathematical inference. For example, on p. 23 we have the following:

Each thing that is, is a being. But then all things that are have Being in common...

But now if everything has Being in common then Being must be a universal. It must therefore exist and have being.

In short, we have discovered that Being exists necessarily, whereas most things of our acquaintance exist only contingently—as we learn from their mortality and decay. Now Monius, as most of his predecessors, takes the kind of existence hereby attributed to Being as the same kind of existence that contingent objects have, only, we might say, “more so.” It is only different in its necessity by contrast with their contingency, but its existence is just as categorical.

Mortal though contingent entities are, they partake of Being while they exist, hence they instantiate Being, the most fundamental Category. Now comes the crucial question: does Being explain their existence? If not, *Coming to*

*Understanding* does not answer the original question which inspired the metaphysical quest.

Monius thinks that the answer is Yes. His justification for this answer is perhaps the most surprising component of his overall system. He argues that Being is the object of a search for understanding by contingent beings, and that search is the reason for their existence (p. 16). Now, does that constitute an answer to the question why contingent beings exist, at least formally. But taken literally, it is an exceedingly telic answer; not *at all* like the kind of answer, indeed antithetical to the kind of answer that we can give about the reason why particular contingent beings exist. Moreover, it is not what it seems. For it does not imply any conscious search for Being on the part of those contingent beings that are capable of conscious thought and planning. It merely asserts that the search for understanding Being is the good for which they strive, consciously or not, the goal towards which their existence leads them on, the state that constitutes fulfillment for them.

Let's review the bidding. We begin with the great questions, e.g., why is it that the universe exists. We are now offered the suggestion, indeed a putative proof, that we exist in order to seek to understand Being. Does that really explain why we exist rather than not existing? Yes, says Monius, because Being is necessary, so there was no doubt about its existence; there are no worlds in which it does not exist. There might or might not have been entities like us to seek to understand Being, since we are contingent entities but we do appear, although not necessarily, as instantiations of Categories that also exist necessarily. And when we do appear, we have of our nature a need for understanding of Being. The gap in this is the absence of reasons why we do appear. Is it to satisfy a need by Being to be comprehended? This is not said; but this is vital, since without it, we only know our goal not our efficient cause. Perhaps an answer is hinted at on p. 56: "contingent beings exist for the sake of the Coming to Understanding of the form of Being, which is Universal Being." The suggestion here seems to go beyond establishing the *goal* of the existence of particulars, to the suggestion that Being does instantiate itself in order to provide entities that will fulfill something like a need to be understood; but those words go beyond what Monius says explicitly. This does leave a serious gap in the effort to answer the originating questions of metaphysics.

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There only remain one matter for comment, since I do not find obvious flaws in the detailed analysis of the Categories or in the formulation of the Axioms, beyond the kind of interpretational options that make the inferences just slightly less than bulletproof, in my view. The most debatable examples of these occur in

the transfer of the four-part causation mantra from particulars to universals. But Monius rightly and adequately protects himself against more severe criticism of the ‘four causes’ by saying that he takes them simply to be four ‘explanatory factors’ (p. 31).

I shall focus instead on the adequacy of the concept of explanation that is used by Monius. I insert this here as a kind of postscript to the more direct engagements that precede it, because it does not threaten the main conclusions or foundations of *Coming to Understanding*. Nevertheless, like the weaknesses in his concept of understanding, this is not only a flaw but to some extent a (weak) indicator of the pervasive problem of slippage between the presenting problem and the formal representation of it that I have mentioned on several occasions.

What he refers to as “the puzzle of explanation” (p. 35) is that the generalization “All Xs do Y (in circumstances C)” seems to have a double role. It is on the one hand used as the major premise in an explanation of an individual case of X<sub>1</sub> doing Y, but it also seems to be *established* by a host of singular causal connections of the form X<sub>n</sub> doing Y. “The puzzle is this,” he says “We seem to be explaining a singular causal connection in terms of a generality which is no more than a conjunction of singular causal connections, including the very one we are explaining.” Yet a conjunction of these is itself impotent to explain one of the conjuncts for it merely entails it.

He proposes quite an ingenious way out of this dilemma by distinguishing between the law-like generalization and the matter-like conjunction of instances. His suggestion is that the explanatory power comes only from the law-like proposition, which does constrain the behavior of matter, whereas the conjunction simply describes it. He goes on to use this distinction as the basis for one of his cell divisions in the chart of the Categories, where it does no significant harm as far as I can tell; but minute examination might reveal a different situation.

In the course of extensive publications about the nature of explanation and understanding, I have taken a related position to Monius, albeit one that is substantially more aggressive. I argue that the generalization does not provide an explanation, even construed as a formal constraint; it simply generalizes the problem. Thus, if someone asks, “Why does this X do Y in C?” and we reply “Because all Xs do Y in C” the response is likely to be, “Well, that just creates a larger problem: why do *they* all do it? Tell me that and then I’ll understand why *this one* does it.” And that response is no less likely to occur, at least with inquiring minds, if we explain that the generalization is in fact lawlike, that it represents constraints on nature of a relatively deep kind, not just an accumulation of facts. The inquirer has simply had the problem expanded, not solved.

For me, the nature of explanation is best conceptualized by thinking of explanations as vehicles for conveying or creating understanding, i.e., a complex of

relational and analytical knowledge that enables the understander to deal with a variety of questions and problem situations that relate to the phenomenon under investigation, *including* questions and situations that have not been explicitly covered by the explanation. The latter clause is what differentiates understanding from rote knowledge, even *very extensive* rote knowledge.

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Now, does this refinement of the move made by Monius make a substantial difference to the validity or comprehensibility of his system? Not in any obvious way, but it creates a sense of risk in accepting his overall conclusions, and I would recommend careful following through of the consequences of making the suggested changes, if they seem plausible, in any future revisions.

## **Conclusion**

This is a fine work, a major contribution to the great tradition of metaphysics. It proposes an original and elegant solution to the problems of being and our understanding of being; and it does so in exceptionally clear language with exceptionally up to date analyses of the many subsidiary philosophical notions that must come into any work with such a broad sweep. I commend it to others for study—and as an example.

## Review 10: Theodore Sider

### I. Introduction

In a refreshing and exciting return to the grand old tradition of constructive metaphysics, A. M. Monius's *Coming to Understanding* addresses the deepest question of philosophy: why does the universe exist? Why is there something rather than nothing? What is the universe *for*?

Monius's answer is that reality exists to be understood; reality exists *in order that* it may be comprehended. But what sort of comprehension is at issue here? A highly systematic and abstract sort of comprehension, it turns out. To explain its nature, Monius is led to give a comprehensive "category theory": a categorization of universals—*kinds* of things—that depicts the basic structure of reality. This theory proceeds via a novel application of Aristotle's four causes to universals. *Coming to Understanding* is coming to understanding the structure of the categories.

*Coming to Understanding* is an interesting and ambitious work. It is extremely clearly and well-written, and advances important theses. Moreover, it is highly original. Finally, its frankly metaphysical approach is welcome, for it produces a defense by example of a sort of intellectual inquiry that is ignored by some, to their detriment. As Monius puts it (pp. 2-3):

Many conclude that there is no answer to [abstract questions of metaphysics], just because there is no answer forthcoming from natural science... Because of a lack of intellectual options, they reject the question of why Being is exemplified, i.e. why things which are contingent, which therefore do not themselves account for their own existence, *happen in fact to exist*.

*Coming to Understanding* provides the desired intellectual option.

### II. Fundamental explanation

The work begins with the question of why reality exists, of how reality might be explained. Of course, such questions are often themselves questioned: just what sort of explanation of reality is sought?

What is sought is clearly a highly metaphysical explanation of reality, not a scientific explanation. Monius explains the contrast between metaphysical and scientific explanations in terms of the scope of explanation. Science is concerned

with the *local*, whereas metaphysics gives *global* explanations. Only the metaphysician can aspire to explain the occurrence of the Big Bang, which concerns physical reality *as a whole*; natural science can only give explanations of local bits of physical reality. Only the metaphysician can explain the form of the fundamental laws of nature; only the metaphysician can explain the purpose of reality (pp. 2-3).

Monius is surely correct that there is an important sphere of the metaphysical, but the proposed delineation of that sphere may be questioned. The contrast between global and local may be understood in two different ways. On the one hand there is a distinction between global and local *objects*. One might be interested in explaining why a given particular object exists, or, on the other hand, why the totality of all objects exists. Local objects are *small* objects, objects that are part of the whole; whereas inquiry into objects at the global level is inquiry into a single big object—the universe. On the other hand, there is a global/local distinction for *properties*. Here the distinction involves generality. Science seems interested in more specific (i.e., local) properties, for example the property of being solid, or accelerated. Whereas metaphysics (one might argue) is interested in very general categories, for example the property being a physical object (which subsumes properties like solid and accelerated, and many more besides), and even more general categories of the sort that Monius goes on to consider in giving the theory of the categories.

The objects version of the distinction seems responsible for Monius's use of the example of the big bang. The explanation of the big bang is a global matter—and hence is counted as part of metaphysics—since the explanation is that of the most global *object*: the whole universe. And yet one might question the inclusion of the explanation of the big bang within metaphysics. It is doubtful whether metaphysics will be able to give any explanation of the *particular* “initial conditions” of the physical world. The sort of explanation of the particular world that Monius ends up giving seems to concern more the question “why does the contingent world exist at all?” rather than questions like “why was there precisely *this* much matter initially?” or “why was this initial matter configured in such and such a way?”. Other examples Monius gives of the province of metaphysics—for example the explanation of why there is something rather than nothing, and the exploration of the notion of purpose in the world—seem more plausible.

Another reason to distrust the objects version of the distinction between global and local, as a route to delineating science from metaphysics, is that some physicists, namely cosmologists, are interested in the world as a whole. Cosmologists are interested in questions involving the entire universe—that is the defining mark of cosmology. Cosmologists ask whether the universe is expanding or contracting, for example. Some of them might even explore whether there

might be any explanations of the Big Bang from within physics! Were they to do this, they would not cease being scientists and start being metaphysicians. They would remain scientists with an especially wide scope of inquiry.

For these reasons, I doubt the right way to distinguish science from metaphysics is to focus on the contrast between global and local *objects*, as objects of explanation. I would suggest instead understanding the global/local contrast as involving *properties*. Metaphysical explanation concerns more *general* properties—the most fundamental and abstract categories. This meshes with the focus on fundamental and abstract categories in the latter portion of *Coming to Understanding*, to be discussed below.

Even given a delineation of metaphysics from science, the notion of explaining the existence of reality still requires clarification. In particular, the relevant notion of *explanation* must be clarified. One explanation of reality as a whole is given by the Theist: reality exists because God created it. Here presumably the notion of explanation is *causal*. But as we will see, this is only one notion of explanation; there are others.

Monius offers interesting criticisms of the Theistic explanation of reality, and then offers an alternative explanation. In summary, the argument proceeds as follows. There are various competing explanations of Reality as a whole: Theism, Spinozism, the Many Worlds Hypothesis, and Monius's hypothesis that the world exists so that it may be grasped or understood. Spinozism says that God necessarily created the world in the way that he did; but that goes against our experience of the world as contingent. Likewise, the Many Worlds Hypothesis goes against contingency. According to this hypothesis, all possibilities actually occur, and reality consists of the totality of "worlds" in which these eventualities obtain. But the totality of worlds, Monius argues, turns out necessary, whereas intuitively it is contingent. That leaves us with the standard version of Theism, according to which God *chooses* to create the world in a certain way. God could have chosen otherwise, and this liberty of God's accounts for our sense of contingency. But, Monius argues, the Theist is not in a position to give an adequate explanation of reality, for what explains the fact that God chose this world, as opposed to another?

The only explanation left standing is Monius's own explanation: that Reality exists for the purpose of being understood. This explanation comes with its own conception of the nature of explanation: impersonal yet purposive explanation. The explanation must be impersonal since it is non-theistic, yet nevertheless it is purposive. How can this be? The reader of *Coming to Understanding* might well be confused early on. On p. 4 the notion of a teleological explanation of reality as a whole comes as a bit of a surprise, without much fanfare. On the face of it, one wants to ask: "what does it *mean* to say that one thing exists *so that* something

else is the case?” It is common to give impersonal teleological explanations, for example in evolutionary biology. One says that legs exist *so that* the organism can run; but the idea here is to locate the existence of legs *within* a certain system; the existence of legs grants survival value within the biological situation on earth. But this notion of purpose apparently has no application to contingent reality as a whole. In response to similar worries, Monius gives an interesting account of impersonal purpose on p. 6: teleological explanation just requires the notion of the end in question being *good*. To say that X exists for the purpose of Y is just to say that it is *good* that X exists and Y is the case. Thus, impersonal purpose may be explained in terms of the notion of the good, a notion that many non-theists will be willing to accept.

This account of impersonal purpose is very interesting, but nevertheless there are questions one may raise here. In general, the notion of a thing happening for a purpose allows cases of things happening for evil purposes. Bombs explode because assassins want them to; mayhem results from the purposes of the cruel. Now, these are clearly cases of *personal* purpose; but the question then becomes: why think that impersonal purpose would be any different? Why could there not be cases of impersonal purpose where things happen for evil purposes? If there are any such cases, they cannot be accounted for by Monius’s theory of impersonal purpose, which requires that things happening for purposes be good.

Monius might argue that things happening for evil purposes can only happen in cases of personal purpose. But *why* should impersonal and personal purposes be so different? One possible answer might be that it is not really all that essential to Monius’s project that we take ‘purpose’ all that seriously. The real claim, it might be argued, is that there is a certain supreme good, which is the understanding of being, never mind whether this counts as a “purpose” for the world. Just as teleological explanation explains without necessitating, so another kind of explanation explains without necessitating: explanations that cite the good of the thing explained. In this way, the notion of purpose would completely drop out of this explanation of the existence of reality. Yet another response to the argument would be to alter the account of impersonal purpose, and say that something happens for an impersonal purpose iff it is an action directed at an *end*, never mind whether this end is bad or good. The problem here, though, is making sense of ends and directedness in impersonal terms. Finally, and perhaps this will be Monius’s preferred response, the alleged datum may simply be denied. Evil purposes are *only* possible for personal purposes; impersonal purposes are indeed possible, and are always good. This may in fact be coupled with an account of evil that locates it exclusively in the realm of *persons*. When we cease dealing with persons, there is no longer any possibility of evil.

### III. Alternate fundamental explanations

Let us grant Monius the account of impersonal purpose. What of the objections to the alternate explanations: Theism, Spinozism and the Many Worlds Hypothesis? As mentioned, the objection to Spinozism and the Many Worlds Hypothesis is that they are flatly inconsistent with our “original intuition of contingency” (pp. 4-5.) This objection is good as far as it goes, but needs supplementation. It is a common philosophical ploy to *reinterpret* the meaning of an everyday term so as to render one’s philosophical theory consistent with the world as we experience it. For example, Berkeley says that despite his claim that all objects are ideas (in God’s mind), still there do exist tables and chairs—because what we ordinarily *mean* by a “chair” is, according to Berkeley, a certain kind of complex of ideas. Many (myself included) would resist Berkeley’s description of his own ontology, and claim that this is *not* what is ordinarily meant by ‘chair’; therefore Berkeley really does deny the existence of tables and chairs. But Berkeley will disagree with this hypothesis about the ordinary meaning of ‘table’ and ‘chair’, and it’s hard to know how to convince him. In the present case, Spinoza could follow Leibniz and say that what we *ordinarily* mean by “contingent” is something which does follow from the nature of God, but follows from his nature in such a way as to not be evident to finite creatures. And the many-worlds theorist could say that what we ordinarily mean by ‘contingent’ is what varies from world to world.<sup>1</sup> So, for example, he would say that it is contingent in the ordinary sense how many planets orbit the sun, because whereas in our world nine planets orbit the sun, in other worlds, fewer or more planets orbit the sun. The pressing question for Monius is this: why don’t these hypotheses about the meaning of ‘contingent’ vindicate our “original intuition of contingency”?

What then of Theism? Theists typically claim that God has freedom of action. He can create reality any way he likes. He has created reality in one way; but others were possible; thus our original intuition of contingency is vindicated.

Monius gives two objections to Theism. The first is that the Theist cannot give a satisfactory explanation of God’s choices that avoids collapse into Spinozism. *Why* does God choose as he does? If God does not choose necessarily, then it would seem that the Theist must answer the question: why does God make the choices that he does? Since God’s choices are assumed to be contingent, this question must be answered. But God was introduced in the first place to explain contingent reality; it would seem that this gambit has not succeeded.

Anyone who seeks to explain contingent reality as a whole faces this sort of

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<sup>1</sup> Indeed, this is exactly what a contemporary defender of this sort of view *does* say—see David Lewis, *On the Plurality of Worlds* (Oxford: Blackwell, 1986).

dilemma, of course. For if that which is cited in the explanation is itself contingent, then it too requires an explanation; but if that which is cited is *not* contingent, then how could it *explain* contingent reality? After all, must not that which explains X *entail* X? But nothing necessary can entail anything contingent. This dilemma threatens to apply to Monius, in fact, and thus threatens to undermine the case against the Theist, who cannot be faulted by being trapped by a dilemma that traps *everyone*.

Monius has an ingenious way out of this dilemma. Purposive explanations do not entail – ‘The spider built the web in order to catch and eat the fly’ does not entail that the spider had to build the web” (p. 6). Thus, according to Monius, there are some things in the world that do not have *entailing* explanations, though they do have *purposive* explanations. The purposive explanation of the contingent world is that it exists in order that it might be understood.

This bit of the argument could use some clarification. There are several points at which a casual reader might be inclined to object as follows:

A. M. Monius: you yourself do not think that all contingent facts have entailing explanations. And yet you object at many times to others who must admit such facts. You object that the theist cannot explain God’s choices. You ask: why did God choose to create this world, rather than some other?

But can we not make this same objection to you? Can we not ask: given that the spider’s wanting to catch and eat the fly does not *entail* the building the web, why *in this case* did the spider build the web? Or, more to the point, given that the goodness of the world being understood does not *entail* that this particular world exists, why then *does* this particular world exist? You say that when X is a teleological explanation of Y, then X need not necessitate Y. But why in *this case* is X accompanied by Y? There still is something unexplained in your system. Even though X explains Y *in a sense*, since it is good that X and Y exist, nevertheless it is still possible that X occur without Y; so why didn’t that happen in this case?

In fact, Monius’s (first) argument against Theism can be formulated in such a way that Monius’s own account is immune to this sort of *tu quoque*. The way to proceed here, is to formulate very carefully and explicitly the principle on which the argument against Theism rests. It will then be clear that this principle does not compromise Monius’s own position. The principle in question is a kind of principle of sufficient reason.

Monius does *not* accept the traditional principle of sufficient reason:

PSR1: For any contingent state of affairs, Y, there exists a *necessitating* explanation X (i.e., a wholly distinct proposition that explains and entails Y)

This should be made explicit. Instead, Monius accepts something like the following alternative principle of sufficient reason:

PSR2: For any contingent state of affairs, Y, there exists some explanation or other X. X *may* be a necessitating explanation, but it may instead be a teleological explanation.

The crucial thing to do, then, would be to make the argument against the Theist very carefully, in such a way as never to rely on PSR1, relying instead only on PSR2. For example, the argument could proceed as follows: by PSR2, God's choices must be given *either* a necessitating explanation, or a purposive explanation. On pain of Spinozism (or on pain of leaving something further unexplained), they cannot be given a necessitating explanation. They must therefore be given a purposive explanation. But then (it can be argued), the reference to God simply drops out: God's choices are playing no role in the explanation of reality (this latter bit of the argument Monius gives very clearly; see p. 6.)

Incidentally, it seems to me that Monius grants too much to the Spinozist here, in the matter of the strength of his or her explanation of reality. Spinozism supposedly avoids all these worries about explaining reality by doing away with contingency altogether. If there are no contingent facts then no facts need to be explained. As Monius says on p. 4:

If we are told that the perfect particular exists necessarily and necessarily creates the world as it actually is, then there is indeed nothing to explain.

Why would there remain nothing to explain? The tradition here says that necessary things are "self-explaining", but this seems too quick. If the Spinozist "beefs up" necessity by including under that rubric a rich set of facts ordinarily considered contingent, she or he robs necessity facts of their immunity to questions of explanation.

Here is another way to think about this question. Whether necessary facts require explanation depends on what "necessarily" means. I suppose that if it is

*logically* or *conceptually* necessary that God creates the world he actually did then there's little need for explanation. But surely no one would claim these things. If God exists necessarily, the necessity in question is presumably of a non-logical and non-conceptual sort, often called "metaphysical" necessity. Stock examples: suppose I'm essentially human. Then it isn't logically or conceptually necessary that Ted Sider is human. You can't deduce by logic or analysis of concepts that Ted Sider is human. It is rather part of my *nature* to be human, where this necessity is "metaphysical". Given metaphysical necessity, explanation may well still be required. Here's an example. Some people say that numbers exist necessarily. The sense of 'necessarily' here must be metaphysical. But surely, that doesn't make all questions about numbers just magically vanish! Surely we must explain why numbers exist, just as we must explain why contingent things exist.

At any rate, Monius gives a second criticism of Theism. This criticism is very interesting, and brings to the foreground some complicated and subtle issues. The argument runs as follows:

According to Theism, God is a necessary and perfect particular who has a capacity to form and act out of a creative intention. Since the world—the object of that creative intention—is, on pain of Spinozism, contingent, this creative capacity could have remained unrealized. But if an instance of the kind Necessary and Perfect Particular could come with a certain capacity realized and also without that capacity realized then two instances of the kind Necessary and Perfect Particular seem conceivable, hence possible, hence *actual* by the nature of the kind in question. For to be a necessary being is to be such that your possibility implies your actual existence. So we have a *reductio ad absurdum* of Theism: if there is one God, who created the world—one instance of the kind Necessary and Perfect Being—then there is The Other God, who did not. (P. 7-8)

Monius goes on to claim that the proper moral to draw is that the Spinozist's mistake is in thinking that the fundamental explanation of the world is a particular—God. Instead, one should think that the fundamental explanation is a universal, and thus cannot be duplicated, since the only intrinsic property of a universal is that very universal.

Before discussing the argument, one side point. It isn't entirely clear that the only intrinsic property of a universal is that very universal. Red seems more similar to Orange than to Blue. This seems to suggest that Red and Orange share some higher-order universal that they don't share with Blue. This higher-order

universal (a property of a property) would be part of the universal natures of Red and Orange. But setting this point aside, what of the argument?

First, it is important to clear up a potential ambiguity in the phrase ‘the world’. Does this refer to the contingent world *exactly as it actually is*? Or does it mean “the contingent world, whatever it happens to be”? If the term is intended in the second sense, it isn’t clear that it’s contingent that the world exists (since some think that it is necessary that there exists something or other). It seems clear that the term is intended in the first sense.

It is now important to address what initially appears to be a devastating objection. In fact, the argument can be reworked so as to be made immune to the objection. The objection is this. In the middle the argument appears to be saying that since each of two things are possible, they possibly occur together: “if an instance of the kind Necessary and Perfect Particular could come with a certain capacity realized and also without that capacity realized then two instances of the kind Necessary and Perfect Particular seem conceivable, hence possible”. The argument thus appears at this stage to have the form:

- i) possibly P
- ii) possibly Q
- iii) Therefore, possibly (P and Q)

But this form of inference is obviously invalid (it’s possible that I win the lottery, and possible that I lose the lottery, but not possible that I both win and lose the lottery).

The argument can be reworded so as to avoid this difficulty, though it is tricky. In fact, Monius is focused on the main trickiness, that the argument should not be formulated as the claim that if *God* has a certain property possibly then he has that property actually, for that would result, not in the desired conclusion that there are actually two Gods, but rather in the unwanted conclusion that God actually has contradictory properties. The solution is, as Monius perceives, to state the argument in terms of the properties being necessary and being a perfect particular. This insight must be turned into a formally adequate reconstruction of the argument, which might proceed as follows:

- i) Suppose that Theism is true but Spinozism is false
- ii) Then it would be possible for there to be a necessary perfect particular who didn’t create the world

- iii) But it is also possible (because it is actual) that there is a necessary perfect particular who *did* create the world
- iv) For every property, P, IF (it is possible that there be a necessary perfect particular with F), THEN (it is actually the case that there is a necessary perfect particular with F)
- v) Therefore, there actually exist two necessary perfect particulars, one of whom created the world, the other of whom did not

This argument makes use of no invalid inference forms.

But now there is another objection to the argument a Theist could make that really is significant. The Theist might object to premise iv) as follows. The theist would grant that a necessary perfect particular is such that the possibility of its *existence* implies the actuality of its existence. But the Theist (at least, one who isn't a Spinozist) should deny that the possibility of a necessary perfect particular having a certain *state* or *property* implies the actuality of a necessary perfect particular having that state or property. Monius states the relevant principle thus: "to be a necessary being is to be such that your possibility implies your actual existence". I am agreeing that the kind being a Necessary Perfect Particular is such that if it is possible that something of this kind exists, then it is actually the case that something of this kind exists. This in fact follows from certain principles of modal logic. Let's define the term 'is a NPP' as meaning 'is necessarily existent and perfect'. Then from this definition it follows that:

- a) necessarily [for all  $x$ ,  $x$  is an NPP iff necessarily ( $x$  exists and is perfect)]

Now given the definition of 'NPP', plus the reasonably uncontroversial "S4" principle for modal logic, that P is necessary if and only if P is necessarily necessary, from a) we get:

- b) necessarily [for all  $x$ ,  $x$  is an NPP iff necessarily ( $x$  is an NPP)]

Then, given very uncontroversial principles for modal logic, it follows from this that:

- c) if possibly [ there exists an NPP ] then possibly necessarily [there exists an NPP]

But the “B” principle for modal logic, which many accept, says that if something is possibly necessarily true, then it is actually true. Thus, we would have:

d) if possibly [there exists an NPP] then actually [there exists an NPP]

Thus, the principle that if an NPP possibly exists then it actually exists follows fairly directly from the definition of ‘NPP’ plus modal logic.

But this sort of argument does *not* work for deriving the principle that any *state* of an NPP is such that if it is possible then it is actual. That is because we would *not* have the analog of premise b). There’s no way to get the conclusion that for every property, P:

bN) necessarily [for all  $x$ ,  $x$  is an NPP with property P iff necessarily ( $x$  is an NPP with property P)]

One could get this, of course, by defining a new term, ‘is an NPP with property P’ in such a way that it is required by definition for such a thing to necessarily have property P. But this wasn’t the original definition of ‘NPP’, and it doesn’t follow from that original definition. Thus a theist could claim that if God possibly exists then he actually exists, but deny that if God possibly has a certain feature, then he actually has this feature. This wouldn’t be *ad hoc*. The idea would be that existence (and perfection) are part of God’s essence and thus part of the definition of ‘God’; but certain of God’s attributes (for example the attribute of choosing to create this particular world) are accidental and so not go into the definition of ‘God’.

What might Monius say in response to this sort of objection? This is a difficult question, for the objection is powerful. Monius needs a new argument to convince the theist that it would be wrong to say that God has certain features accidentally. Here is a tentative suggestion. Perhaps Monius could argue that saying God has certain features accidentally would clash in some way with God’s perfection. A perfect God, one might argue, would not be arbitrary; but accidental features seem to be a kind of arbitrariness. If this argument is correct then *any* theistic account would swallow up contingency and would necessarily be Spinozistic. Alternatively, Monius could simply give up defending this second argument against Theism and rely on the first, which still stands, and remains powerful.

So, we have considered Monius’s arguments against Spinozism, The Many Worlds Hypothesis, and (non-Spinozistic) Theism. If this list of alternate explanations of reality is exhaustive, a powerful argument has been given for the claim that the best explanation of reality as a whole is that it exists for the purpose

of being understood.

In fact, however, the list of alternate answers to the question of why contingent reality exists is not exhaustive. Conspicuously missing is the “explanation” of reality given by a purely naturalistic metaphysics. The naturalist will reject the principle of sufficient reason, at least when it is completely unrestricted. The naturalist will say that some contingent propositions are just true, and have no further explanation. Of course one can give local explanations of certain contingent propositions in terms of others, but it is impossible to give a complete global explanation. Explanations must end somewhere, the naturalist says; the naturalist’s ends with the brute existence of the contingent world.

Monius does discuss something like this view briefly (on p. 3), but since many contemporary philosophers are tempted by this option, a fuller discussion seems in order. Naturalists might agree that it would be *nice* to have an explanation of everything, but argue that the *costs* of a global explanation of contingent being are prohibitive. Here, however, Monius may well have an opening wedge. Monius might argue that naturalists *think* the cost of global explanation is prohibitive only because they focus on the theistic explanation. But as Monius has shown, one need not postulate the existence of a deity to give a global explanation. One can instead make use of impersonal purposive explanation. Here is one of the intellectual options promised at the outset. To make this case fully, Monius must argue that the ontology required to give the coming-to-understanding explanation of contingent being need not be objectionable in the way that (the naturalist thinks that) a deity would be ontologically objectionable.

#### **IV. Coming to Understanding**

Once the alternate explanations of contingent reality have been dispensed, the way is clear for Monius’s preferred explanation: reality exists to be understood. But there are various forms this schematic explanation might be given. By a series of arguments Monius arrives at the preferred version: that the Supreme Good is the comprehensive understanding of the form of Being itself; and it is for this Supreme Good that reality exists. A few of these arguments merit comment.

An overall issue concerns the very nature of *goodness* here at issue. One would have liked a little more explanation and intuitive introduction to the value-theoretical notions at work here. There is a notion of goodness in play, but it isn’t completely familiar; it isn’t the ordinary notion of personal or moral goodness, for example. There is a “higher” notion of goodness at work, which presumably owes nothing to what humans think. There are surely fascinating questions about the relation between this notion of goodness and the more workaday notions, questions

that would be worth exploring.

On now to particular bits of the argument. Part of the argument concerns what is the *supreme* good. On p. 10, Monius argues that if the Good were improvable, there would be an embarrassing question: why wouldn't contingent beings exist for the sake of a certain better basket of goods? But as discussed Monius is already allowing the possibility of teleological explanations that do not entail, and so is allowing states of affairs with no explanations beyond the teleological explanation that the state of affairs exists for the sake of a certain good. So, one might wonder: how can Monius offer up this argument that the Good cannot be improvable? Instead, why mightn't the following be the case? The existence of contingent beings is explained by a certain good. This good isn't the supreme good; it could be better. But it is illegitimate to ask for a *further* (non-teleological) explanation of why contingent beings exist for the sake of this good, rather than a higher good.

A related worry surfaces in the following passage (pp. 12): "If Being is the Good then since Being is a necessary universal that exists whether or not the contingent being exists and exemplified it, the existence of contingent being is not explained by this alleged Good". This sentence seems to presuppose that explanations always entail, whereas Monius admits that teleological explanations do not entail. Explaining very clearly the nature of teleological explanation and clarifying the official version of the principle of sufficient reason would, I suspect, clarify the answer to this problem.

A second thread runs through several of the arguments. One of these is on p. 11: Monius argues that the Supreme Good cannot be the bundle of actually realized goods, since those goods could be improved by the addition of more. This argument appeals to the principle that *adding* further goods improves a state of affairs. Other arguments in this section appeal to something like this principle. The problem is that this principle ignores the existence of so-called "organic unities" discussed by G. E. Moore and others. An organic unity is an entity that would not be improved by the addition of further goods. Those who accept the existence of these organic unities reject the "additivity" principle according to which addition of further goods to a whole always makes that whole better. Perhaps the whole already has a perfect balance, or perhaps each good that is already part of it is perfectly connected with other goods, in such a way that merely adding more goods would not add to the overall good of the whole, and might even detract from the overall good.

It is through the rejection of alternative accounts of the Good that Monius arrives at the preferred formulation of the explanation of reality. Monius introduces six alternative accounts of the Good, and all but one are rejected. There are some important issues that arise in connection with the third of these alternative

conceptions of the supreme good: that the supreme good is the loving affirmation of Being. First, it is asserted on p. 12 that this conception requires the existence of contingent being and the development of mind. But why? Why couldn't the Good be the loving affirmation of Being by a necessarily existing mind—God?

The more important issue concerns the argument against this conception (on p. 14). It is argued that the Good can't be loving affirmation of the world, since there are a lot of bad things in the world. But one might argue that loving a thing doesn't entail loving all its parts. One can love a person without loving her liver.

Monius might reply that loving the world can't be the good because it would be *better* to love just those parts of the world that are good. This is a powerful response, but there is a potential reply. Someone who believes in organic unities might say that it would be worse to love just the good parts of the world, because part of what makes the world as a whole a worthy object of love is its totality. Loving the world properly requires loving the bad along with the good. The merits of this response are unclear; perhaps the only clear thing here is that this matter is worthy of discussion.

From this discussion of alternative conceptions of the Good, the preferred answer emerges: the Supreme Good is the comprehensive understanding of the form of Being itself. It is moreover asserted that this Supreme Good is *sovereign* (p. 16): "it is a good by virtue of which all other goods (i) derive their authority as objects of pursuit and admiration [and] (ii) stand in a hierarchy of higher and lower with respect to each other."

It is possible to raise critical questions about the thesis that supreme good is coming to understanding of Being. First, imagine a basket of goods: it includes understanding Being, but it also includes a little harmless pleasure. Wouldn't this basket be a little better than understanding Being alone? The worry here is that the claim that coming to understanding is *supreme* seems to rule out the possibility that there exist other goods. Many would be perfectly happy to grant that understanding is a very high good, and a superior good to mere pleasure. But it is very hard to grant that the addition of a bit of pleasure to coming to understanding would not improve it *at all*. Here is a thought experiment to test one's intuitions. Imagine two worlds, in neither of which does anyone achieve any interesting degree of understanding at all. In one world, the inhabitants are a little bit too cold to be comfortable, whereas the other has a pleasant temperature keeping everyone warm and happy. Surely the second world is better. But if that is so, that seems to indicate that balancing pleasure over pain counts for *something*. How can this be reconciled with the thesis that the supreme good is coming to understanding?

One possibility would be to back away from the claim that the Good is supreme in the sense that it cannot be improved. Monius could make instead the weaker claim that coming to understanding is a *higher* good than all others, in the

sense that it *counts* for more in determining how good the world is. Monius could grant that pleasure counts for *something* in the determination of how good the world is, but nevertheless uphold that coming to understanding counts for far more.

The second critical question is this. Suppose there had been no human beings, but there had existed a number of other contingent beings, none of which were sentient. (Imagine a world like ours but devoid of all organic life.) This seems like a possible situation. What then would have explained the existence of the contingent world? No explanation proceeding in terms of *understanding* can be given in this case. Of course, no one then would have been around to ask the question what explains contingent being, but still, one might have thought, there should have been an explanation. (This is clearly the case if Monius is willing to commit to the principle PSR2, mentioned above, for that principle simply states in the abstract that certain kinds of explanations must exist, regardless of who is asking for those explanations.)

In addition to addressing these critical questions, there are several respects in which this rich terrain would be worth further exploration. First, the conception of sovereignty is very interesting, and raises new questions. It is unclear whether the sovereignty of the Good is supposed to follow from the fact that the Good is Supreme. This connection would be worth clarifying. Moreover, the notion of sovereignty is an extremely interesting one, and one that is not only of interest to metaphysics: writers in moral and ethical philosophy will be interested in this notion, even if they do not share the view that coming to understanding is a sovereign good. Thus, this matter warrants further exploration.

Second, it would be interesting to hear Monius's thoughts on the bearing of the fundamental thesis that reality exists for the purpose of understanding on the philosophy of mind, and more generally to philosophical anthropology: the philosophical account of the place of persons within the world. If the fundamental purpose of reality is understanding, this would seem to have implications for the importance of persons within the world. The materialist idea that persons are just physical objects on a par with animals and even inanimate objects would seem to be inconsistent with Monius's view of the place of persons (and understanding beings in general). There would seem to be some fascinating consequences Monius could draw.

Finally, Monius seems to be in a position to draw some conclusions about the value of empirical inquiry, as well as philosophical inquiry. At the beginning of the work Monius carefully distinguishes physics from metaphysics and gives an inspired defense of the value of metaphysics. That defense comes into its own once the argument for Monius's preferred explanation of reality is complete: only metaphysics can succeed in giving a theory of the categories which concerns the form of reality itself, and thus metaphysics is required to fully come to

understanding. All this seems correct; however it would seem that there is plenty of room for science in this picture. Surely a comprehensive understanding of reality should include an a posteriori understanding of the contingent world, in addition to an a priori understanding of the necessary categories. Of course, no one is in danger of forgetting about the significance of empirical science; that is why Monius's emphasis is on the importance of metaphysics. But Monius's opponents might suspect that Monius has no use for empirical science, and it would be good to head off any misunderstanding here. Moreover, Monius is uniquely positioned to give an account of the *value* of science. Few other world views would allow the explanation of the value of science that Monius could give. Thus, a few words speaking to this matter would be welcome.

## V. Category theory

We turn now to the heart of *Coming to Understanding*. Given the argument of the first part of the work, the purpose of the world is for the world to be understood. This understanding consists of comprehension of the structure of the world at a level of great abstraction: a grasp of the fundamental categories of the world, and their interrelations. It is to explaining these categories and their interrelations that the final portion of *Coming to Understanding* is directed.

Others have attempted theories of the categories. What is distinctive about Monius's approach is that what is sought is a *motivated*, and *non-arbitrary* account of the categories, in which we have no mere list of the categories, but rather one in which each category clearly has its place within an interrelated scheme.

The scheme begins by dividing up universals into two categories: Universal and Particular. Universal is then divided into Contingent and Necessary; Particular is divided into Comprehensible and Spatiotemporal. These categories are then further subdivided. These subdivisions are then structured in certain ways. For example, for each category Monius locates two other categories, one of which is the *form* of the first category, the other of which is its *matter*. Other structuring relations will be discussed below, but it is to structuring in terms of form and matter that I now turn.

Each category is to have its form and its matter. How is the form of a category to be identified? Each category, C, is shown to divide into two subcategories, or "aspects" (more on which below). One of these is argued to *apply to itself*. This is identified as the form of category C. But this category also applies to C, as well as to itself. There is thus a need to explain what distinguishes these categories. This distinguishing element is the matter of C.

Here is an example. Consider the initial division of the most basic category, Being, into its first two aspects: Universal Being and Particular Being. One of

these applies to itself: Universal Being is itself a universal, and hence applies to itself. The other does not: Particular Being is itself a universal, not a particular, and so does not apply to itself. Universal Being is thus the form of Being, whereas the matter of Being is Particular Being.

Later on, further structure is introduced into the theory of the categories, by means of utilizing other Aristotelian notions:

## VI. Self-exemplification

Clearly, self-exemplification is a crucial element in this theory of categories, and as such merits attention. Serious questions about the possibility of a universal exemplifying itself can be raised, because of the Russell paradox. Russell's paradox is this: consider the universal does not apply to itself. Either does not apply to itself applies to itself, or it does not. But either supposition leads to contradiction. Suppose first that:

(\*) does not apply to itself applies to itself

Then by its very definition it would *not* apply to itself. After all, its definition is that it is the universal of not applying to itself; and so if it applies to any universal, U, then that universal doesn't apply to itself. So, since (\*) says that it applies to does not apply to itself, we must conclude that does not apply to itself does *not* apply to itself. So it would both apply to itself and not apply to itself—a contradiction. So let us take the other supposition: that the universal does not apply to itself. But now, given the definition of the universal, it *would* apply to itself (since we have supposed it does not apply to itself, and it is the universal of not applying to itself).

So here we have a contradiction. Somehow it must be blocked; something in the reasoning must have gone wrong.

Now, there are a lot of things one can say about the Russell paradox, but one of the most promising is to say that universals come in "levels". Level 1 universals apply to particulars, but never to universals. If you want to have universals applying to universals, you need to move to level 2 universals. These apply to level 1 universals (as well as particulars), but never to level 2 universals (or any higher level universals). And so on. In general, you never have universals of a given level applying to any universals of that same level. And so, *a fortiori*, you never have universals applying to themselves.

But this would threaten Monius's system. Monius repeatedly makes use of the notion of self-application of universals. Some response to this difficulty is in order.

Perhaps the best move for Monius would be to *adapt* what he says about self-exemplification to the “levels” theory of universals. The idea here would be that all universals, including Being itself, come in different levels. There is Being<sub>1</sub>, Being<sub>2</sub>, etc. None of these applies to itself. Being<sub>1</sub> applies to all the particulars. Being<sub>2</sub> applies to every particular and every universal at level 1 (including Being<sub>1</sub>). And so on: Being<sub>i+1</sub> applies to every particular and every universal for all levels less than or equal to *i*. Given this picture, one cannot say *strictly* that a universal applies to itself. But one can make a modified statement. Though no universal applies to itself, it is true that one universal in the Being *hierarchy* (i.e., the list of universals Being<sub>1</sub>, Being<sub>2</sub>, etc) applies to another universal *in that same hierarchy*. Likewise, one can say that one universal in the hierarchy Universal Being<sub>1</sub>, Universal Being<sub>2</sub>, ... applies to another universal in that same hierarchy (*viz.*, Universal Being<sub>2</sub> applies to Universal Being<sub>1</sub>). This is analogous to saying that a single universal of Universal Being applies to itself. Moreover, one can say that *no* universal in the hierarchy Particular Being<sub>1</sub>, Particular Being<sub>2</sub>, ... applies to any other universal in this hierarchy. That is analogous to saying that a single universal of Particular Being does *not* apply to itself. Thus, within the levels approach one can construct claims that are *analogous to* claims in Monius’s original system.

The only lurking difficulty I see with this approach is that of specifying the unifying principle that allows all the members of a single hierarchy, for example the hierarchy Particular Being<sub>1</sub>, Particular Being<sub>2</sub>, ..., to all counting as part of the same hierarchy. Using the notation I used for this hierarchy is in a way cheating, for by naming all these universals with the same basic name ‘Particular Being’, but distinguishing among them by using different subscripts, I presume that there is something that justifies grouping them all together. But just what is it that they all have in common? This remains an outstanding question. Nevertheless, I am inclined to think that the levels approach is the best one for Monius.

Before setting aside the topic of self-exemplification, there is another point in which it enters the debate that is worthy of comment. Monius utilizes self-exemplification to give an extremely interesting argument that the universal Being exists necessarily (p. 25). It begins with the claim that Being applies to itself, and, moreover, this is no accident. (Set aside for the moment the worries about the Russell paradox.) This surely is correct: it seems internal to the nature of Being that it applies to itself. Monius then goes on to conclude that Being must exist necessarily, since applying to itself is essential to Being and applying to something requires existing.

But this argument is open to the following objection. Let us distinguish *conditional essentiality* from *absolute essentiality*. A property is *conditionally essential* to X iff the following is true: necessarily, if X exists, then X has the

property. Whereas a property is *absolutely* essential to X iff: X exists necessarily, and necessarily has the property. Here is an example. I do not exist necessarily, and so nothing is absolutely essential to me. Nevertheless, plenty of things are *conditionally* essential to me: in any possible world in which I exist, I am human. Put another way: for being human to be absolutely essential to me, I would need to be human in *every* possible world. But I am not human in absolutely every possible world simply because there are plenty of worlds in which I do not exist. Nevertheless, I *am* human in every possible world in which I exist, and therefore I am at least *conditionally* essentially human.

Now, the observation that it is internal to Being that it applies to itself seems to me to only establish that it is conditionally essential to Being that it applies to itself. I agree that it would be very strange to claim that it is an *accident* that Being applies to itself. It would be absurd to explain Being applying to itself by reference to *other* things; and it would be absurd to claim that there could be two possible worlds, one in which Being applies to itself, the other in which Being does not apply to itself. But none of this shows that Being must exist necessarily.

It only shows that *if* Being exists, then it must apply to itself.

The very same flaw is similar to that which confronts Descartes's ontological argument. Suppose we define God as the being with all perfections, and we agree that existence is a perfection. The argument then is that God must have existence essentially, since God by definition has existence. The criticism of the argument is this: a definition of this sort at best establishes that God has the property in question *conditionally* essentially. If you define X as the being that has F, all that follows from the definition is that *if* X exists, then X has F. (Suppose I define 'the universal puncher' as the being that has punched everyone in the nose. It does not follow that the universal puncher has punched me in the nose, since there just may not *be* anyone who has punched everyone in the nose. All that follows is that *if* the universal puncher exists, then he has punched me in the nose.) So from the definition of God as the being with all perfections, you cannot conclude that God has the perfection of existence. All that you can conclude is that *if* God exists, then he exists. But that is trivial, and doesn't help Descartes establish that God really does exist.

What Monius could do here is back away from the claim that this sort of argument establishes the necessary existence of the universal of Being. Other arguments would serve Monius better here. Though some argue that *all* universals exist necessarily, Monius wisely refrains from making this claim. However, Monius could rely on the claim that all *pure* universals exist necessarily. The notion of a pure universal is hard to define; I have in mind those that only involve "logical" notions, such as existence, identity, application, and so on, and do not involve anything in the concrete world. The universal being friends with Ted is

impure since it involves a particular thing—Ted. The universal being made of gold is impure since it involves a particular substance—Gold. But universals like Being, Particular Being, Universal Being, and so on, are pure, and hence exist necessarily.

## VII. Subcategories, repetition, and the status of category theory

Setting aside these issues of self-exemplification, what of Monius's theory of the categories? One might have questions about Monius's *methods* for arriving at the theory of the categories, on one hand, and questions about the *particular* choices of categories, and their rationales, on the other. (This is, indeed, a distinction between form and content.) Let us initially focus on methodological questions.

Grant, for the moment, Monius's method for deciding which of the two immediate subcategories of a category is its form and which is its matter. But there is a prior question: how are we to decide on the two immediate subcategories of a given category? Without any method for deciding, one is left with a sense that the categories are coming out of thin air.

This worry may be illustrated with a concrete example. Monius's system begins by dividing Being into Universal Being and Particular Being, and then divides the former into necessary and contingent. But, one might ask, why wasn't the initial division of Being into Necessary Being and Contingent Being?

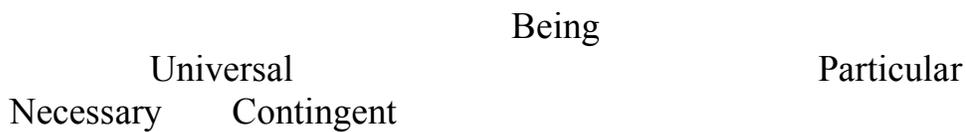
This in turn raises a further, though related question. Suppose Monius had indeed proceeded in this way, dividing Being into Necessary Being and Contingent Being? Might then *each* of these categories have been subdivided further into universal and particular? This would have resulted in four categories: necessary universal being, necessary particular being, contingent universal being, and contingent particular being. Now in fact, only two of these categories actually show up in Monius's theory; the categories of necessary particular being and contingent particular being are missing. One question is: why is that?

Perhaps this is because Monius thinks that there simply are no necessary particular beings. Some would argue that all particulars are contingent. If this is right, then, it might be argued, there is no *need* to divide particulars into necessary and contingent. Now, of course, some argue that there *are* necessary particular beings: for example God, numbers, etc. Thus, two questions face Monius here. First, does Monius reject the possibility of necessary particular beings? If so, then this should be explicitly argued. But that would open up interesting possibilities for further constraining the construction of the category theory, and hence for resisting the charge that the categories "come out of thin air". Monius could argue that the categories are only responsible to divisions that are actually instantiated. Divisions that are either empty or universal (and hence vacuous) require no

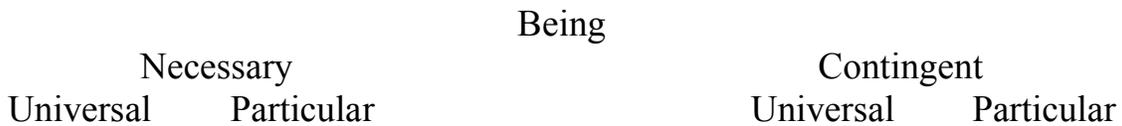
representation in the theory of the categories. That is why, Monius could argue, there is no need for the categories of necessary particular being and contingent particular being: there simply are no necessary particular beings, so that category is empty; and since all particular beings are contingent, the inclusion of the category of contingent particular being would be vacuous.

The second question faces Monius if he *does* allow that there exist necessary particular beings: why then isn't there a category for them in the theory of categories?

Indeed, a more general issue may be raised at this point. My root question, recall, is why Monius's category theory begins



rather than



Notice that in the second example, there are *repetitions*: universal, for example, occurs twice; it is used to subdivide both necessary and contingent. In Monius's system, by contrast, there is never any repetition of this sort. My guess is that this point marks something very significant in Monius's thinking; but we are never told what that is. The system Monius defends would be greatly enhanced—and some of the present questions answered—by bringing the rationale for non-repetition to the surface.

Finally, there is a sort of meta-categorical issue raised by these ruminations, an issue concerning the relative status of different hypotheses about the structure of the categories. Some would argue that there are many alternate theories of the categories one could construct, *each* of which would reflect the nature of Being equally well. The idea would be that we can carve up nature in many ways to suit our purposes. We could first divide up Being into elephants and everything else ("everything else" = non-elephant-particular or universal), and then go on from there. Which way we do it only reflects what is useful to us, not any important structure in reality. It seems clear that Monius does not accept this picture. Rather, the idea is that there is one way to divide up the structure of Being that reflects its intrinsic nature. Not all categorizations are created equal. This *realism* about category theory is an unstated assumption of Monius's work; it both

deserves explicit mention, and is an interesting thesis in its own right.

### VIII. Form and matter

Another issue concerns the (very interesting) application of the distinction between form and matter to the structuring of the categories. Initially, the idea of the form of a category was introduced as being the that aspect of a thing that is cited as a response to the question “what is it to be this thing?” (p. 25). It is doubtful, however, that this is what is desired. “This is a universal” does *not* seem to be a good answer to the question “what is it to *be* Being?”. Being is one of many universals, and the question “what is it to *be* this thing?” seems to call for a uniquely specifying answer. Surely, the desired formulation should be this: the form of a category is that universal that is the correct answer to the question: “What *sort* of thing is this thing?”. It is very hard to define precisely what this question amounts to. After all, we can’t say that the “sort” of a thing is the most general category to which it belongs. That would make the form of everything Being. Rather, idea is that each entity has a sort, which is a very general category of which it is a part, but which is not so completely general so as to trivialize the notion.

As noted above, Monius seems to hold a very strong realism about the very idea of category theory: there is one and only one correct way to represent the categories and their interrelations. This realism could be tied to a correlative realism about answers to the question “what *sort* of thing is this?”. Just as universals objectively stratify into a single interconnected whole (that is captured by a correct theory of categories), universals objectively come in different *sorts*.

A quite different question is raised by the application of the form/matter distinction to universals. When the distinction is applied to particulars, the form is a property *of* the matter. Consider a statue made of clay. It is common to say that the clay is the matter of the statue, and the form is the universal being statuesque. Now, in this case, the form—being statuesque—is a property of the matter (a particular quantity of clay). One wants to know: does this continue to hold when Monius applies the distinction to universals? As we saw above, the formal subcategory is generally found by finding the self-applying subcategory, but the question here is whether the formal subcategory always applies to the material subcategory? If this *does* hold then it would be worth drawing more attention to it (since it would strengthen the analogy between form and matter for particulars and form and matter for universals.) And if it *doesn't* hold then this is important as well, for it would count as a *disanalogy* between the uses of the matter/form distinction as applied to universals, on the one hand, and particulars, on the other.

Moreover, if the formal subcategory does not generally apply to its sister material subcategory, then it is unclear in what sense the material subcategory may be considered the matter *of* the formal subcategory.

The role of material subcategories, for Monius, is twofold, by analogy to the two-fold role of matter within the Aristotelian conception of material objects. On the one hand, the material subcategories *individuate*, and on the other hand the material subcategories are *components* (just as matter is a component of a hylomorphic particular) (p.29). It is clear how the componential role works for particulars: the matter of the statue is quite clearly a component of the statue. But it is less clear how this componential aspect of the matter role works when we turn to material universals. Particular Being is the material subcategory of Being; but in what sense is it a component of Being?

Here is a potential answer that might be given. In applying the matter/form distinction to universals, what is being developed is an *analogy*. Accordingly, one should not expect that material subcategories literally be components, in the same sense in which the matter of a particular is a component. We should rather look for a relation at the level of universals that is *analogous to* the relation being a component as applied to particulars. And in fact, such a relation is ready to hand. The relation being a subcategory may indeed be naturally regarded as being analogous to being a component of. Consider an example: the category human has subcategories male human and female human. The set of humans divides into two *subsets*: the set of male humans and the set of female humans. And the subsets of a set are easily thought of as being like the *parts* or *components* of that set. Thus, just as the set of humans may be thought of as having its subsets as parts, the category human may be thought of as, in a sense, having its subcategories, male human and female human, as parts, or components.

In fact, the analogy between the application of the form/matter distinction to particulars and to universals goes further. It is natural to think of the form of a statue as *guiding* or *constraining* the matter. Likewise, Monius argues (p. 35), one can use the form/matter distinction, now applied to universals, to give a solution to the problem of the relation between law-like generalizations and singular causal statements. This is a fascinating application of the form/matter distinction, but bears more exploration. Exactly in what respect are lawlike generalizations matter-like and form-like? What exactly is the relation of a given form to the instances of a law-like generalization? Exploring this analogy more carefully would be interesting in its own right, and would also more fully illuminate the nature of the analogy between the application of the form/matter distinction to universals and particulars.

## IX. Aspects vs. Subcategories

A recurring theme in the development of the theory of categories is the notion of an *aspect* of a universal. For example, Monius claims p. 25 that Particular Being is an aspect of Being, and says similar things in many places. In fact, an aspect of a universal may be understood in two different ways. It appears that Monius *usually* understands aspects as *subcategories*. Thus, to say that category Being has two aspects, Particular Being and Universal Being is just to say that these are its two immediate subcategories. (Of course, to say that these are its subcategories is just to say that everything that instantiates Being must instantiate exactly one of these two subcategories. That is, Being is the disjunction of these two subcategories.)

But there is another sense in which one might understand aspects: one might take the aspects of a universal to be its *higher order properties*. In general, I would have thought, the aspects of a thing are its properties. For example, one of my aspects is that I am human. Another is that I am a philosopher. So the properties human and philosopher are two of my aspects. On this construal, the aspects of Being would be its higher-order properties—i.e., the universals instantiated by the universal Being. So, for example, Being would be an aspect of itself, since Being itself has Being. Moreover, the universal Universal Being would also be an aspect of Being, since Being itself is a universal. However, the universal Particular Being would not be an aspect of Being: Being is a universal, not a particular, and hence does not instantiate Particular Being.

This last point shows that in many of the places where Monius discusses the aspects of universals, he intends to be discussing their subcategories, and not their higher-order properties. Were this always the case, there would be no reason to draw attention to this issue. It would merely be one of terminology; we could harmlessly and silently regard Monius as always intending “subcategory” by “aspect”. However, there are cases where the meaning in fact seems to shift, cases in which “aspect” seems to mean “higher order property”.

Consider, for example, the question of the subcategories of the universal Material Necessary Universal Being. Monius divides this category into: Componential Material Necessary Universal Being and Individuative Material Necessary Universal Being with the following justification:

[There are] two divisions of Material Necessary Universal Being, which isolate the two metaphysical roles of matter. On the one hand, matter individuates or distinguishes things that are otherwise alike. On the other, matter is a component or element of a whole, which makes it up.

Monius goes on to ask which of these *aspects* of Material Necessary Universal Being is formal and which is material. In fact I think here Monius has slipped into thinking of aspects as higher order properties, rather than subcategories. For if the componential and the individuative were different *subcategories* of the Material, then one would expect that whenever something is the matter of something else, it is *either* a component of the thing, *or* it is individuative of the thing. (Compare the two subcategories of Being: Universal Being and Particular Being. Whenever something has Being,, then it has *either* Universal Being *or* Particular Being.) But in fact, that's not right at all. Rather, when something is the matter of something else, it plays *both* a componential *and* an individuative role. If the aspects of a property were its higher-order properties then componential and individuative would indeed be aspects of Material, since the two main higher-order properties of the universal Material Necessary Universal Being are to be componential and to be individuative. But once we remember that the theory of the categories is to be a theory of the main *subcategories*, we see that this is not what's wanted at all. We want two subcategories of Material Necessary Universal Being: two universals U1 and U2 such that everything that instantiates Material Necessary Universal Being instantiates exactly one of universals U1 and U2.

It seems that the unclarity of the term 'aspect' has come to roost here: an 'aspect' of a property has shifted to mean higher-order property, whereas it should have retained a fixed meaning. The way to remedying this defect is clear. A single meaning of 'aspect' must be chosen, and adhered to. Presumably this single meaning should be *subcategory*, not *higher order property*. And cases like the present one, in which the sister categories are really not subcategories, must be modified.

Most of Monius's divisions into subcategories are unaffected by this issue. For example, the division of Kinetic into Patterned and Random, and the division of Cognizable into A Priori and A Posteriori, are clearly divisions into subcategories. Everything cognizable is cognizable *either* a priori or a posteriori; everything kinetic is *either* patterned or random. But another case in which the shift in 'aspect' seems to do damage is the (p. 39) division of the Sensible into the Qualitative and Structural. Here it does not seem that the latter two are subdivisions of the former; it does not seem that everything sensible is *either* qualitative or structural. Rather, it seems like *each* case of a sensation has *both* qualitative and structural features. Thus, qualitative and structural seem to be higher order properties of sensible, not subcategories. It doesn't seem as if some sensations are qualitative but not structural, whereas others are structural but not qualitative; but this would be required if we're dividing up the category of the Sensible into subcategories.

## X. Further structure: efficient causation

As mentioned above, part of what makes Monius's category theory unique is the degree of structure present in the theory. Monius does not simply list different categories: the set of categories as a whole is organized. The principles of organization are the analogs of Aristotle's four causal relations. So far I have focused primarily on the first two causal relations: being the matter of and being the form of. A third causal relation is the relation of efficient causation.

Here Monius has an interesting idea. Consider the relation between genus and species. In a sense a genus and a species are interdependent: we can define the species in terms of the genus, for example when we say that a man is a rational animal. On the other hand, we can define the genus in terms of the species, as when we say that an animal is a man or a rabbit or a goat or ... But what we *cannot* do is define the *differentia* in terms of the species; we cannot define 'rational' in terms of 'man'. Thus, Monius says, the differentia is "ontologically prior to" the species (p. 43). This relation of ontological priority, Monius argues, is the analog, for universals, of the relation of efficient causation.

The identification of the universals analog of efficient causation with a relation of ontological priority seems spot-on; however, I doubt Monius has pinpointed the appropriate relation of priority. Suppose we grant that one can indeed define an animal as a man or a rabbit or a goat or ..., where the definition proceeds via this sort of *list*. Then there seems no obstacle to giving a similar list-like definition of the differentia in terms of species-level universals: to be rational is to be a man or an angel or God or .... Here we would have a list-like definition of the differentia.

This is a significant worry, I think. Nevertheless, the idea of using a kind of priority among the categories to structure them still seems plausible, and it seems plausible that this relation of priority is the analog of the relation of efficient causation over particulars. Perhaps the problem was in granting that the list-like definitions are really definitions. Consider, for example:

to be an animal is to be a man or to be a goat or ...

This is not a definition, one might argue, because the concept of being an animal is *contained in* the concept being a man: to be a man *just is* to be a rational animal. And therefore, since the concept of being an animal is contained in the concept of being a man, the definition is circular. Likewise, the definition of a rational thing as being a man or an angel or ... is circular, since to be man *just is* to be a rational animal. Therefore, the differentia really is *conceptually prior* to the species; 'rational' may be used to define 'man', but 'man' cannot be used to define

‘rational’, for that would be circular: to be a man *just is* to be a rational animal.

## **XI. Further structure: means-ends relations**

We have considered the application of efficient causation to universals. I turn next to the application of the final Aristotelian causal relation to universals: the relation being the purpose of.

Since some may balk at applying the relation being a purpose of to universals, Monius has an extensive justification of this application (pp. 49). Monius notes that even in ordinary cases, for example a runner running a race, we usually think of goals as universals. The runner is concerned to run a four-minute mile in general; his goals are not directed at any particular but rather the universal being a four-minute mile.

One interesting question here is whether all cases of purpose have this feature. One wonders about love, for example. Suppose I love someone. Then the object of my love seems to be a particular person, rather than a type. (I may love someone, but not her identical twin.) Of course, here we have love, rather than a goal. But now suppose it is my goal to make someone I love happy. My goal seems to be making *this particular person* happy, rather than making someone a lot like her happy. But perhaps Monius may argue that still, the goal is a universal. The goal is an *impure* universal: making *this particular person* happy. (It is impure because it involves a particular person, not a type of person.) Nevertheless, the goal is still a universal. After all, Monius might argue, I do not care what particular case of making this particular person happy occurs; I might just care that this particular person becomes happy in some way or other.

Thus, the thesis that the *object* of purpose is always a universal may be sustained. However, this is not the only source of resistance to the idea of applying purposive relations to universals. In fact, it is not even the strongest source of resistance. Means-ends relations are *two-place* relations. We say:

The purpose of X is Y

It is one thing to convince me that the “right-hand” relata of these relations are always universals; i.e., that if the purpose of X is Y, then Y must be a universal. It is quite another thing to convince me that the *left-hand* relata can be universals - i.e., that X can be a universal. In uncontroversial cases, it is *persons* that have goals. Whereas Monius applies these notions to universals at both the left- and right-hand sides: not only are universals the ends, but it is universals that have those ends.

This latter step towards applying means-ends relations purely within the realm

of universals is partially addressed on p. 49 by an example in which Aristotle claims that the dominant end of Man is contemplation. Monius says, and we should agree, that it would be inappropriate to ask Aristotle “Which man?”. But one need not interpret Aristotle’s saying as implying that the dominant end of a *universal*, man, is contemplation. Rather, one may understand Aristotle as claiming that it is the dominant end of *each* man to contemplate. It makes no sense to ask “which man?” because Aristotle has no particular man in mind; he means to be making a claim about all persons.

I would suggest an alternate defense of applying means-ends relations to universals: Monius should simply advert to the earlier defense of impersonal teleology. As explained in the first half of the work, someone who does not believe in God can nevertheless claim that the purpose of the universe as a whole is understanding, for this simply amounts to claiming that it is *good* that the universe as a whole is understood. Likewise here, the claim could be that means-ends relations hold between universals simply in virtue of the fact that certain things are good. The problem, though, is showing exactly what things are said to be good. For example, do we have a means-ends relation between universals U1 and U2 when it is good for U1 and U2 to be *coinstantiated*? (And if this suggestion be taken, there remains a followup question: in that case, which of U1 and U2 is the means and which is the end?)

Monius does not take this path, but rather incorporates without reduction the notion of directedness and dispositions. This, too, is attractive, but brings in its train the worry that without theism, there should be no talk of directedness.

## **XII. Space and time**

Let us return to the very beginning of the development of the theory of categories. The very first division of Being is into Universal Being and Particular Being. Now, this first division ought to be the most fundamental—it would clearly be wrong to divide things up initially into the elephants and all the rest. The divisions at this stage must be maximally fundamental.

Now in fact, Monius’s method for defining the distinction between universals and particulars raises doubts about whether the distinction is indeed sufficiently fundamental. For Monius, while particulars are perhaps repeatable across time, they are not repeatable *at* a time. Universals, by contrast, *are* repeatable at a single time: at the present time there are many instances of the universal human, for instance. (I myself would add that universals are also repeatable *across* time, whereas particulars are not; but more on this below.) Now, this method for distinguishing universals from particulars brings in the concept of time. Thus, the fundamentality of the distinction between universals and particulars comes to rest

on the fundamentality of the notion of time. But something seems wrong about this. I myself think that space and time as we know them are only contingent features of the world. In some possible worlds, the special theory of relativity is true; in others not. Perhaps in still other worlds time and space are even more entangled. Perhaps in other worlds there is no such thing as time and space. From this perspective, time and space are not metaphysically fundamental features of the world, but rather are just another contingent feature of the world, on a par with the existence of planets, cats and dogs, tables and chairs, etc.

If Monius were willing to agree with Kant on the nature of time, then this objection would be answered. Time would *not* be “just another feature of the world”; it would be presupposed by the very nature of the world. But Monius may well not be willing to follow Kant towards his infamous near-idealism.

A better response would be to back away from characterizing the difference between universals and particulars in terms of repeatability. This might be welcome anyway: there are some universals that are *non*-repeatable, for example the universal being a president of the United States (since there can be only one president at any given time), being the tallest man, etc. And perhaps some particulars are repeatable; some have said that God can be in many places at the same time. The better move would be to say that a universal is the kind of thing that can be *instantiated*. And the difference between things that can be instantiated and those that cannot *does* seem like a very basic metaphysical distinction, worthy of being the foundation of a metaphysical system.

On the other hand, if the characterization of universals in terms of repeatability is retained, it seems to me that this characterization may be strengthened. The issues I have in mind center on the notion of repeatability itself. Consider, for example, Monius’s characterization of a particular as something that is *not* repeatable. This claim amounts to the claim that a particular cannot be at different places at a single time (p. 23). Note, however, that in a sense, a particular *can* be at different places at a single time: by having distinct parts at those places. For example, at this very moment I am at a number of places: all the places occupied by my head, all the places occupied by my feet, etc. The claim that particulars cannot be at different places at a single time must presumably mean that a particular cannot be *wholly* present at different places at a single time—(i.e., there can’t be a particular, *all* of whose parts at a certain time are located at two different places at that time), whereas a universal *can* be *wholly* present at different places.

But now, it may well be that this claim can be strengthened: perhaps one can claim that particulars cannot be wholly present at different times either. I myself think that particulars are not wholly present even at different moments in time. A particular exists at many moments of time in the same way as it exists at many

moments of space: it has different parts at those different moments of time. These are its *temporal parts*. If Monius adopted this view, this would further contribute to the cleavage between universals and particulars. Universals would be objects that are repeatable—i.e., wholly present—across *both* time and space, whereas particulars are objects that are not repeatable at all; they are incapable of being wholly present at different locations in either time or space. This would make for a very neat, sharp, ontological distinction.

Accepting the doctrine of temporal parts might be thought to compromise Monius's division of the category of Stable Spatio-temporal Particular Being into continuing and aggregative. As an example of a continuing stable spatiotemporal particular, Monius gives an example of a simple, which is "wholly present at each time" at which it exists (p. 38). But if the doctrine of temporal parts is true, not even an electron is wholly present at each time at which it exists, since only one temporal part is present at any one time.

In fact, however, it seems to me that the conflict here with the doctrine of temporal parts is only skin deep. For Monius explains the *contrast* category, that of the aggregative stable spatiotemporal particular, as follows: (p. 37-38)

It would have to be the Category that subsumes those stable spatio-temporal particulars that are merely partly present at each time at which they exist, in the sense of having *varying* parts over time. Such complexes as animal bodies or repairable artifacts that can undergo change of parts are paradigm examples.

But even someone who accepted the doctrine of temporal parts would accept this contrast between continuing and aggregative continuants. The definition of the categories would merely need to be reworded. The category continuing would not be defined as those continuants that are *wholly present*. Rather, it would be defined as those continuants that never alter their *spatial* parts; correlatively, the category aggregative would be defined as containing those continuants that *do* alter their spatial parts. While electrons, like all continuants, have a different temporal part at each instant, they never have different spatial parts, in the sense in which an animal body has different spatial parts.

Therefore, the way for Monius to accept the doctrine of temporal parts is open. And as mentioned, there would be some advantage in doing so, since it would make for a more sharp distinction between particulars and universals.

### **XIII. Relations or properties?**

A question may be raised jointly about several of the categories proposed by

Monius. For definiteness' sake, let us initially focus on just one of these. On p. 29 Monius claims that the form of Necessary Universality: is formal. The reason given for considering formal here is that filling out the diagram in every direction displays the form of Being. One preliminary question one might have here is why this would count as the correct answer here, and not for every other category whose form we seek. But the main question I wish to advance concerns the very meaning of the category formal. As the term 'form' was originally introduced, being the form of is a *relation*, not a property. A universal is the form *of* a thing if it is the answer to a certain question "what is it to be that thing?". But now, 'formal' has come to indicate a *property*: we have a category formal necessary universal, and this presupposes the notion of a universal being formal (as opposed to being the form *of* something). This must be explained.

A possible answer is that a universal U is formal iff there is something, X, such that U is the form *of* X. In that case, presumably the other subcategory of necessary universal, namely matter, would be understood in a parallel way: it is the category of necessary universals that are the matter of something or other. An interesting question that then arises is whether this division of necessary universal is really exhaustive. For it to be exhaustive, it must be the case that every necessary universal, U, is either formal or material. In turn, this requires

(\*) for every necessary universal, U, *either* i) there is some universal of which U is the form, or ii) there is some universal for which U is the matter

Is (\*) true? It would be interesting to read a discussion of it. If it is indeed true, it is an interesting thesis of its own right, and deserves mention. Moreover, the question of whether the categories of formal and material are *exclusive* also arises: could it ever happen that a single universal was the form of one universal, and also the matter of some other universal? If so, then that universal would be the form *of* something, and also the matter *of* something, and hence would be both formal and material. Whether this really could arise would be worth exploring.

Parallel questions arises at other places in Monius's category theory. For example, Demarcational is proposed as the matter of Formal Necessary Universal Being. But again, I would have thought we have here a relation, Demarcates, rather than a property. (It is a three- place relation: X demarcates Y from Z.) So perhaps the property is defined in terms of the relation as follows: U is Demarcational iff there is some X and some Y such that U demarcates X from Y.

If so, however, a question arises. Won't Demarcational Formal Universal Being apply to itself? For if Demarcational Formal Universal Being is the matter of Formal Necessary Universal Being, then it demarcates Formal Necessary

Universal Being from Self-specifying Formal Necessary Universal Being. If so, then we have an exception to the general rule that we locate the formal subcategory by finding which immediate subcategory applies to itself: *both* immediate subcategories of Formal Necessary Universal Being apply to themselves. This matter must be clarified.

Perhaps the problem is that I have misunderstood the intended meaning of ‘demarcational’. Or perhaps the problem may be avoided by claiming that even though Demarcational Formal Universal Being is *demarcational*, it still doesn’t apply to itself because it isn’t formal; rather it is material. Fair enough; but then we have the same problem also for the category of individuating material necessary universal. Presumably a universal is individuating if it individuates something. But then since individuating material necessary universal is the matter of material necessary universal, it helps individuate that universal. Moreover, individuating material necessary universal is material. Thus, it seems to apply to itself; now we really do seem to have a violation of the rule that we locate the formal subcategory by finding which immediate subcategory applies to itself.

Similar questions also arise in connection with the category componential material necessary universal being. What is the universal componential? I would have thought ‘component’ stands for a relation: X is a component of Y. Following our strategy, we might understand a componential universal as one that is a component of *something*. If so, then Monius’s claim that Componential Material Necessary Universal Being is a component seems correct (although perhaps a bit trivial, since *everything* is a component of *something*). But now there is a worry. Monius claims that Componential Material Necessary Universal Being is the form of Material Necessary Universal Being. For that to be so, it must apply to itself. Now, it is indeed componential; moreover it is a necessary universal. However, if it is the form of Material Necessary Universal Being, then it is *formal*, not material, and so it doesn’t apply to itself.

It might seem that a solution suggests itself. The problem of the previous paragraph was that Componential Material Necessary Universal Being was alleged to be the form of Material Necessary Universal Being, but doesn’t seem to apply to itself. The paragraph before that claimed that Individuating Material Necessary Universal Being *does* apply to itself, but was alleged to be the matter of Material Necessary Universal Being. So one might think that Monius could solve the pair of difficulties by reversing the earlier claims. Componential Material Necessary Universal Being is the matter, not the form, of Material Necessary Universal Being, whereas Individuating Material Necessary Universal Being is the form, not the matter, of Material Necessary Universal Being.

But this is not a stable solution. Individuating Material Necessary Universal Being cannot be claimed to be the form of Material Necessary Universal Being,

because if it is the form of Material Necessary Universal Being, it would need to apply to itself; but then it would be material, not formal.

Indeed, what has emerged is that *if* I am right that ‘formal’ and ‘material’ mean, respectively, ‘being the form of something’ and ‘being the matter of something’, then *nothing* can be the form of Material Necessary Universal Being! For the form of a category is to be the immediate subcategory that applies to itself. But any subcategory of Material Necessary Universal Being that applied to itself would be material, and so not formal (assuming that nothing can be *both* formal and material).

This is a very interesting problem. In a way it is like the liar paradox, in which someone who says “I am lying” cannot consistently be regarded as either lying or telling the truth. Here, because of the presence of ‘material’ in the definition of Material Necessary Universal Being, there is no way of consistently regarding anything as being the form of this category (assuming the form of a category must apply to itself).

There seem to be two main options available to Monius. The first would be to give up on the rule that the formal subcategory must always apply to itself. But this seems to be a deep feature of the system, and would be a shame to abandon. Probably the better bet would be to revise the understanding of ‘material’ and ‘formal’ somehow. Thus, the solution will need to generally answer the question of the present section. We have seen that there are a cluster of universals whose names appeared to be names for relations, not properties. I have assumed that in each case, the universals are to be understood as properties defined by rules analogous to this one: a universal is demarcational if it demarcates *something*. But perhaps this was the faulty assumption. Some other account of demarcational, formal, material, individuating, and the rest is required.

#### **XIV. Conclusion**

As we have seen, *Coming to Understanding* is a rich work that merits serious scrutiny. I have challenged the work on many matters of detail; but, while the importance of this detailed work is not to be denied, still it should not obscure the most important fact about the work, which is that it focuses squarely on the very deepest questions of metaphysics, and places them in their rightful position at the center of human inquiry. It argues forcefully that reality exists for a reason: to be understood by inquirers. Moreover it takes important steps towards realizing that purpose; it proposes a rich theory of the fundamental categories by which reality is structured. Even one who disagrees with Monius that understanding is the *supreme* good ought still to agree that understanding is *a* good, and even an extremely important one. Thus, anyone who loves knowledge must come to grips

with the issues raised by *Coming to Understanding*.

## Review 11: Ted A. Warfield

*Coming to Understanding* is a bold, ambitious monograph. In this brief commentary I highlight some key features of the essay. I begin by noting the significance of the overall project and move on to comment on the way the project is executed. Within these specific remarks I begin with discussion of *Coming to Understanding*'s exploration of the question "Why is Being exemplified?" and close with remarks about the core of the work: the theory of the Categories.

Though analytic metaphysics has experienced tough times in the recent history of philosophy, this important sub-discipline is currently flourishing. Analytic metaphysicians continue to wrestle with important particular and general metaphysical problems. Despite this recent revival, some fundamental issues are still largely ignored on the contemporary scene. Taking "Being" as the name of reality as a whole, it is not common in contemporary philosophy to encounter large-scale work on the metaphysical kinds of Being (the Categories). *Coming to Understanding* includes sophisticated work on the Categories but also includes much more. The work moves further by taking its foundational work on the Categories to provide a "large-scale account of reality, its origin, purpose and how it hangs together" (p.3). *Coming to Understanding* therefore ventures boldly into relatively unexplored and important metaphysical terrain.

*Coming to Understanding* is significant because of the scope and importance of the project. But the essay would be of only superficial significance if the detailed work on the project were disappointing. This, however, is not the case. Both major parts of *Coming to Understanding* deserve attention. The first (roughly) 1/3 of the work delivers sustained argumentation addressed primarily to the question "Why is Being exemplified?" (pp.4-22). The remaining 2/3 of the work consists most fundamentally of systematic, constructive work on the Categories and strikingly original work on the relations among and connections between the Categories (pp.23ff).

"Contingent being exists," says the argument of *Coming to Understanding*, "for the sake of the coming to understanding of the form of Being Itself by contingent being" (p.16). This conclusion is reached via an argument for the conclusion that a successful answer to the "Why is Being exemplified?" question must take a certain form. Such an answer must, it is argued, appeal to a contingently realized capacity of an intrinsically unique necessary being that is relevantly related to the Categories and must be an (impersonal) purposive explanation that appeals to a fundamental and supreme good (p.11). Though, as *Coming to Understanding* points out, the conclusion quoted above is not original to this work, there are at least two important features of this part of the work. First,

the detailed argumentation in this section is impressive. *Coming to Understanding* finds a common failure in some well known attempts to explain why Being is instantiated: many such attempts fail to do justice to the strong pre-theoretic intuition that the instantiation of Being is a contingent matter. Having eliminated rival views, *Coming to Understanding* moves on in a vigorous defense of the restrictions on an adequate answer to the “Why is Being exemplified?” question and an equally vigorous defense of the answer quoted above. A key insight here is that a purposive explanation can explain genuine contingencies and does not require a mediating intentional agent. The sustained argumentation in this section is the most rigorous examination of this issue that I have seen. Second, this section of *Coming to Understanding* is significant because it delivers an important link between the “Why is Being exemplified?” question and the theory of Categories to come. It is argued that what it is to have an understanding of the form of Being itself is to have a correct theory of the Categories (p.17). I turn now to the heart of *Coming to Understanding*, the theory of Categories.

In the key final section of *Coming to Understanding*, we encounter rich, detailed, work on the Categories. As noted in the work, Aristotelian and Hegelian work on the Categories is unfortunately silent on fundamental issues including the relations among the Categories, the metaphysical status of such relations, and the nature of the overall structure of the Categories. *Coming to Understanding* takes up all of these issues and does so in truly original fashion. Locating Being Itself at the center of the structure of the Categories, the work proceeds via the application of axiomatized insights into the individuation of the Categories. The most striking theoretical moves in this section involve two hypotheses that expand the domain of application of Aristotelian thinking about the four causes. First, it is claimed that the four causes “apply to and are reflected among the Categories themselves” (p.31). And second, it is taken as axiomatic that analogs of the four causes are the connective relations among the Categories (p.42). It is this latter move that takes *Coming to Understanding* into the original position of articulating cross Category connections beyond the more familiar divisions of Category and sub-Category (and sub-sub-Category). It is via the application of this insight that the work offers a much richer picture of the structure of Being than rival theories.

*Coming to Understanding*, I conclude, contains a wealth of dense argumentation, a detailed exploration of a fundamental metaphysical system, and many original and potentially important insights into the nature of Being. I recommend *Coming to Understanding* to philosophers interested in these issues.

## Review 12: Dean W. Zimmerman

### I. Introduction

*Coming to Understanding*, by a philosopher identified only as “A. M. Monius”<sup>1</sup> (henceforth, “A.M.”) is a lengthy treatise on fundamental issues of ontology. It falls into two parts: In the first half, A.M. argues that the best explanation for the existence of contingent beings—and, in particular, contingent beings capable of rational thought—is that this state of affairs is necessary for the realization of a great good: Namely, that there be individuals who come to understand the structure of the ontological categories under which absolutely everything must fall. The second half is given over to the project of developing and defending a particular theory of categories. This reviewer found the argument of the first part singularly unconvincing, as will appear in the sequel. The positive theory of the second part is another matter. There are points at which I shall show it to be inadequately defended; and I shall argue that it is based largely upon a misleading analogy—an analogy between the “branching” of a category into subcategories, on the one hand, and the hylomorphic account of substances as composites of matter and form, on the other. Nevertheless, A.M.’s fundamental thesis about the structure of ontological categories is novel and interesting. It may, as I hope to show, even be *true*—albeit not for the precise reasons A.M. supposes. The treatise contains, then, at least one significant and original thesis about the theory of categories—a hypothesis about the “self-applicability” of one member of each pair of subcategories. This thesis shows some promise of both unifying the table of categories, and explaining why and where ontology ends and other disciplines begin. Fortunately, the part of the positive theory that I take to be of most value does not depend upon the argument of the first half.

I shall begin with a criticism of A.M.’s argument for the thesis that “coming to understand *Being*” is the end for which contingent things exist. But the bulk of my review is devoted to discussion of A.M.’s theory of ontological categories—his arguments for the details of the theory, and my attempts to deploy and develop what I take to be his main insight.

But first, a few minor quibbles. It is not clear to me that there is really “an

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<sup>1</sup> The reviewer of *Coming to Understanding* faces the question whether to refer to the anonymous author using male or female pronouns, or in some other, more awkward, gender-neutral way. Since A. M. Monius has adopted the name of Ammonius, and since Ammonius was definitely a man (although he was said to speak with the tongue of a god), it seems to me to be appropriate to assume or at least to pretend that his successor is male.

innovation in method” (p. 3) that enables A.M. to reach his conclusions about the nature and purpose of Being. There are innovations in the system developed, and some new philosophical arguments for one or another conclusion. But the methods used to defend the system are of a piece with those used by those philosophers of every era—at least, those who have been willing to take up these grand, metaphysical questions. It is tempting, whenever one makes what one takes to be a significant advance in the understanding of some age-old philosophical problem, to suppose that the secret to the success is that one has stumbled upon or invented a new method that will cut through philosophical problems like a threshing machine through a field of wheat. But the history of philosophy is strewn with rusting, abandoned “new methods” that were supposed to solve the knottiest metaphysical problems—or, in the case of the positivists and ordinary language philosophers and Wittgensteinians, to “dissolve” them. A.M. is rightly skeptical of the claims of the positivists and others to have shown metaphysics to be meaningless or the result of confusion about language (“language gone on holiday”). But I am likewise skeptical about the claim that the methods used here will put analytic ontology on a surer footing than heretofore. As A.M. points out, his subject matter is ancient: As long as there have been philosophers, there have been many who thought that everything there is falls under ontological categories forming a table something like A.M.’s wheel. And the general style of argument will be familiar enough to those already acquainted with contemporary work in ontology. Perhaps the newest large-scale metaphilosophical innovation is the tying together of the two projects: the quest for an explanation of the existence of “the universe” and the pursuit of a theory of categories. But, as shall appear, the arguments A.M. gives for the connection between the two projects are not ones I find at all convincing.

I have a further minor quibble about the virtues A.M. ascribes to his theory. The theory of categories developed in the second half does not seem to me to justify the following claim made early on (p. 3): “*The most general methodological insight shaping the present work is that analytic ontology is the key to speculative cosmology*” (author’s italics). Perhaps the author is using “speculative cosmology” in an extremely broad way, so that the phrase applies to any attempt to answer questions like: “What is Being? Why is Being intelligible? Why are there contingent beings?” Contemporary philosophers and physicists do not, in general, construe the phrase so broadly, and would be misled by A.M.’s assertion. The promise of help with “speculative cosmology” would be taken to suggest that the theory will have consequences for a quite different set of questions. The following list includes some of the more widely discussed issues falling under the label “cosmology”: the shape of space-time, the nature of matter and energy (whether, for instance, some kind of panpsychism is true, or a physical monism according to

which all matter is really one big thing “showing up” in many places, or a geometrodynamical theory of matter according to which there is nothing physical besides space-time variously warped), whether there was one big-bang or an oscillating series of “universes”, whether there were many branching universes near the beginning of ours that continue in absolute spatial isolation from ours, whether everything will end with a big crunch or in a boring eternity of maximal entropy, whether there will be the sort of parousia Tipler defends on quantum-mechanical grounds, whether quantum theory shows that the universe is fundamentally mind-dependent, and so on. So far as I can see, the theory defended here has *no* implications for *any* of these questions. That is not a *criticism* of the theory. One should be suspicious of *a priori* philosophical arguments that have especially strong empirical consequences. But I think that if a philosopher like John Leslie, who happily accepts the label “speculative cosmologist”, were to begin the manuscript in hopes of finding answers to the cosmological questions he is interested in, he would be disappointed.

## II. The rejection of Leibnizian (necessitarian) explanations for existence

Ultimately, I agree with A.M. that it is a mistake to try to explain why Being is exemplified in particulars by claiming that it was necessary that there be particulars. But I wondered about the source of his confidence that necessitarian explanations could not be right. Suppose one thought that God is a particular but necessary being, and that he necessarily created the best particulars of other sorts—i.e., the best possible world. Or that the laws of nature are necessary truths, and the conditions from which the universe began (if it had a beginning) were necessary too. One who holds such a view must admit that the appearance of contingency is quite misleading; one has to explain it away somehow. But we are, after all, sometimes wrong in our modal judgments; we think we should be able to square the circle, or divide water into bits of arbitrarily small sizes, each itself some water, and so on; and these things turn out to be absolutely impossible—not just inconsistent with laws of nature, but impossible in a stronger sense (or, better, in a *weaker* sense; impossible in a sense that excludes fewer things).

Suppose the theist is not unreasonable in believing that there is a necessary being, necessarily omniscient, omnipotent, omnibenevolent. And suppose (what I would deny) that there is good reason to believe such a being would not create unless there were a best possible world to choose. (I take it that there is little reason to accept either that there is a best, as opposed to an infinitely ascending series, or that the absence of a single best would leave such a God unable to make a choice.) A person who believed these things would have a ready explanation for the appearance of contingency (we fail to realize that there is just one best world,

many do not even realize that there is a God who is responsible for all that we see), and for the source of the necessity (God's essential nature, his necessity, the existence of a best). Call such a philosopher "Leibniz", although I suspect that the real Leibniz might want to soften the necessitarianism by understanding ordinary modal talk in terms of the worlds God did not, and in fact could not, create. Leibniz could treat the intuition of the contingency of particulars as a *prima facie* plausible thesis that is undermined by other things of which he is more certain.

A.M. seems to treat the intuition of contingency as a bedrock certainty, one that cannot be given up on any grounds. A theistic necessitarianism like Leibniz's is rejected *not* on the usual grounds (there is no reason to believe in such a God, necessary existence makes no sense, *this* could not be the best possible world). Rather, it is rejected because it has the consequence that things we thought were contingent are not really contingent after all. By my lights, if Leibniz has moderately good reasons for believing all these theological premises, he has good reason to doubt the intuition of contingency. The contingency of particulars might seem obvious, on first blush, but it is based on nothing but "how things strike us"; and these other things Leibniz believes provide a perfectly coherent explanation of why things might strike us that way even though they are not that way.

I happen to reject the Leibnizian strategy for explaining everything by making it necessary; I reject it not because I do not believe in such a God, but rather because I do not believe that there would be a single best possible world for God to choose. At least there is reason to wonder why, for any good world you pick, there could not be a better one with just a few more good things in it. Of course it is possible for there to be wholes that include a good but that would be better without it. Sometimes adding a good to a state of affairs *decreases* the total value of the aggregate state of affairs. This is what Moore called an "organic unity", in which the value of the whole is not equal to the sum of the parts. Mental anguish is a bad thing, but if an onlooker is aware of undeserved evil befalling someone else, a state of affairs including both persons but with the onlooker carefree and happy is worse than one in which the onlooker is distressed by the other's suffering. (Brentano discussed organic unities of this sort at considerable length.) Still, it seems unlikely that a state of affairs encompassing the entire universe could not be made a bit better by adding relatively *independent* good states of affairs to it.

(The possibility of organic unities may be overlooked by A.M. on p. 13; it is said that a "more inclusive" good is always better than an "embedded" good. A certain sort of organic unity would falsify this claim.)

### III. The "many worlds" hypothesis

There seems to me to be a mistake, or at least an ambiguity that naturally leads to

misunderstanding, in A.M.'s objection to what he calls the "Many Worlds Hypothesis" (MWH). He identifies MWH with David Lewis's "modal realism", according to which every possible way a world could be is a concrete entity that just happens to be inaccessible from here—because not spatially related to anything in our world. Lewis's view may well be open to A.M.'s objection that, "[s]ince the ensemble [of worlds] includes all possibilities, the ensemble and all its parts and aspects are necessary, just as with Spinoza's *Deus Sive Natura*" (p. 4). But Lewis's modal realism is not what is usually meant by the phrase "Many Worlds Hypothesis". At least in the context of attempts to explain why there are any contingent beings, or why the contingent beings are as they are (for instance, in discussions of "the Anthropic Principle" like those found in John Leslie's book, *Universes*), the phrase typically refers to the thesis that, for some reason, there are space-times that branch off from ours. Sometimes this is supposed to be due to conditions that obtained shortly after the Big Bang, or in other extreme circumstances. But some quantum theorists think that, whenever there are superposed states, there are multiple universes branching off—e.g., one in which Schrödinger's cat is dead, another in which it is alive; we just discover which we are in when we make an observation. In any case, the way in which MWH is typically put to work in explanations of everything is that it is supposed that the other space-times may have different laws from ours; that the fundamental constants, for instance, might be set in different ways, more or less at random, in different branches. If the likelihood is high that there are many branches with many different settings of the constants, then it is less surprising that we live in a world in which the laws allow for the development of living things capable of understanding.

These sorts of appeals to "many worlds" are at least in *some* of the same explanatory business as A.M.'s highest good of "coming to understanding"; they explain, if they explain at all, why some *prima facie* surprising regularities should not seem so surprising, regularities that allow us to exist and think and wonder why we are here. I take it that A.M. explains the fact that contingent beings behave in a way that allows us to exist and think and wonder why we are here by pointing out that things have to be like this in order for anyone to "come to understanding"; it is a precondition of our finding Being intelligible, a condition that obtains *for this end*, but that could have failed to obtain. MWH has an explanation that, like A.M.'s, leaves the explanandum contingent: Things didn't have to be this way, but given the number of space-times with different, randomly determined laws, it is not so surprising that they should be.

#### IV. Theistic, non-necessitarian explanations for existence

The following is merely a confession, not an argument: I believe that there *is* a necessary being, one who created all other contingent particulars; and who may even be the “ontological ground” upon which other necessary things rest, such as universals (aspects of God’s thought) and propositions (the contents of all the thoughts God entertains). I hope it will prove instructive to explore precisely what explanatory resources A.M. thinks his view has that could not be matched by someone who would explain the exemplification of being by contingent things in terms of the God I have described.

First of all, given that there is in fact no best of all possible worlds, only an infinite ascending series (no doubt many at each degree of goodness), there is no reason to think that God “necessarily creates the world—the totality of contingent being—as it actually is” (p. 4). Suppose there are infinitely many worlds worth creating (above a certain threshold of badness), and that God is confronted with the dilemma of choosing a world or simply remaining solo. If failure to create anything would be less good than some of the worlds that could be created, it would be a sorry God who was so enslaved to the “principle of sufficient reason” as to be unable to take a fancy to one and create it. The indecision of Buridan’s ass is a deficiency, not an intellectual virtue. He might decide to create, even though not creating would be above the threshold of acceptable choices; in which case, he did not *have* to create at all (something many theologians have claimed). Such a God, who sometimes acts without “sufficient reason”, could explain the being of contingent particulars in just the fashion A.M. would like: teleologically, but not by showing that the things that exist are in fact necessary.

A.M. objects that “if an instance of the kind Necessary and Perfect Particular could come with a certain capacity realized and also without that capacity realized then two instances of the kind Necessary and Perfect Particular seem conceivable...”; and, since possibly necessary things actually exist, there would have to be two (many more, if I am right about the hierarchy of creation-worthy worlds) that actually exist. But there is a subtle fallacy in this line of reasoning. Pretend for a minute that there is an individual essence for me, “Zimmermanity”. If I could have been an English professor instead of a philosophy professor, then Zimmermanity could come with the capacity to be an English professor realized and also with it not realized. Does that mean there is a possible world in which Zimmermanity is co-exemplified *both* with being an English professor and also with *not* being an English professor? No. It is conceivable, and possible, that I have been one, and also that I have not been one; but it does not follow from “Possibly, a is F, and possibly a is not F” that “Possibly, a is F and not F”.

Now the typical believer in a necessarily existing God thinks that necessary

existence plus necessary omniscience (i.e., necessary omnipotence and necessary omniscience) constitute an individual essence of God: a property he alone could have, and that is essential to him. It is in this respect like Zimmermannianity. And, just as in that case, the bare fact that one can conceive of its co-exemplification with F and that one can also conceive of its co-exemplification with not-F does not show that it is co-exemplifiable with both in the same world.

If A.M. wants to make this objection stick, he should argue directly against the doctrine that the conjunction of necessary existence and necessary omniscience do not constitute an individual essence; he should argue that this conjunctive property could be exemplified by more than one thing, and the most conclusive way to do this would be to show that it could be exemplified by *more than one thing in a single possible world*—that is, that, possibly, two things are necessarily existent, necessarily omniscient, and necessarily omnipotent. That is what is really needed for a convincing reductio ad absurdum of the sort A.M. wants, one that ends with the positing of multitudes of deities.

Many theists have argued that there could not be two co-existing omniscient beings. Suppose there were two such, and call them “Tom” and “Dick”. Tom would be unable to interfere with the exercise of the powers of Dick, if Dick were really omnipotent and omniscient; but if Tom were omnipotent and omniscient, too, he *should* be able to. If this argument works, then a reductio based on the possibility of duplicated deities in a single world is blocked. So someone in A.M.’s position may well want to take up the challenge of showing that it is possible that omnipotence and omniscience be exemplified by two things at once.

I think the challenge could perhaps be met by supposing that our omniscient Tom and Dick are also essentially perfectly good beings who only want what is best. Here is the sketch of an argument: Suppose that not interfering with the actions of a perfectly good, omnipotent, omniscient being is always the right thing to do; and that perfectly good, omnipotent, omniscient beings always do the right thing. If omniscience is compatible with being essentially perfectly good, then it cannot be a strike against Tom and Dick that they cannot do bad things (of course, if omniscience is *not* compatible with being essentially good, then classical theism is sunk already). Then every subjunctive of the form “If Tom were to want to do x, Dick would be unable to stop him” would only be true because of the constraints due to necessary goodness, which are presumably not counted against omnipotence. Still, this is only an argument *against* an argument *for* the impossibility of two necessarily perfect beings; it does not directly show the possibility of two such beings, which is what A.M. wants.

I cannot see any advantages to A.M.’s hypothesis over the rather traditional theistic one that I favor. A.M. wants to say that a necessarily existing *abstract*

*object*, the universal *Being*, something that could exist apart from its contingent instances, that probably cannot be said to enter into causal transactions in virtue of laws of nature (it could exist alone, and cause nothing), and that cannot act for reasons it has, produces (in some sense) things like rocks and clouds of gas. Why? Because that would be a good thing. Well, do we have any reason to think that things ever work this way? That any *nonsentient* thing produces anything else *merely* because it would be good to do so—as opposed to producing the good thing because it was set up to do so by sentient beings who wanted it to? I submit that we do not; but that we have plenty of examples of things with *intentions* and *beliefs* who produce things because they are thought to be good: namely, ourselves. An agent like us in having beliefs, desires, and intentions, could explain the existence of something within its power to create, as long as it had some motivation to create such a thing and no overriding reason to refrain from creation or to create something else instead. At least this is a sort of explanation for the occurrence of an event with which we have some familiarity.<sup>2</sup> If universals went around causing their own instances whenever such instances were good things, the universe would not have so much empty space in it—unless, as seems unlikely, proportionately large quantities of empty space were an especially good thing! And things should be popping into existence all the time, without need for mundane sublunary causes. Perhaps they are, somewhere far away from here. But, again, it seems unlikely.

## V. The positive argument for “coming to understanding” as the supreme good

A.M.’s argument for the conclusion that all being has the understanding of Being (and, hence, the categories) as its goal was singularly unconvincing. It seemed to me that it boiled down to the following: What other explanation could there be for their being particulars, once the goals of an all-powerful God are unavailable? And then A.M. rules out various candidates—loving affirmation of contingent being, understanding of contingent being, etc. But there are ever-so-many alternative goods that could only be achieved by the exemplification of particular being—virtues of character, the understanding of contingent universals, and so on. How does he manage to eliminate all these other possibilities?

It all turns upon the “unembeddability” of the supreme Good. A.M. says that, for any particular good, X (taking pleasure in the good, loving affirmation of contingent being, etc.), if X is to be the supreme good, and the good for which

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<sup>2</sup> Richard Swinburne makes similar points; see his “Reply to Parfit”, in *Metaphysics: The Big Questions* (Basil Blackwell, 1999).

particular being is exemplified, then it must be impossible to embed X in “a different good that contains it as a constitutive part” (p. 13). X is, it seems, a property (“coming to understanding”) or state of affairs type (“someone’s coming to understanding”), something that can be exemplified by particular things, or instantiated in them; and embedding such a property in a larger, greater good seems to be a matter of conjoining this universal or state of affairs type with some other one to build a universal or state of affairs type such that it would be better for it to be exemplified than for the smaller one to be exemplified alone. For any proposed X other than one involving the understanding of something, A.M. can then insist that the good of understanding that X is exemplified is better than the mere exemplification of X by itself, because the latter implies X’s exemplification *and something else*, something that makes the situation better yet.

What is one to make of all this? If there *is* a good that is not embeddable in this way, one that does not yield a better whole when conjoined with anything else, then surely it deserves the title “the Supreme Good”. But of course something might be the supreme good, yet not be the reason why there are contingent things. The supreme good may not be exemplified at all, and things may exist for some lesser good. And the very notion of a supreme good may be incoherent. If potential goods are universals that can be exemplified by things, and if one person’s exemplifying one such good is a good thing, then a pair of people exemplifying the same type of goodness is an even better thing. The universal, *coming to understand being*, which I can exemplify, is a good; but the relational universal that holds between A.M. and me when we *both* come to understand being is something that, when exemplified, yields an even *better* state of affairs, I should have thought. This universal could be represented, with x and y in the places for the relata, as *x and y coming to understand being*.

This universal is a relation. Suppose that, for some reason, relations were ruled out as candidates for the good for which things exist; still, as long as loving and happiness and other things besides understanding are goods, then surely *coming to understanding and loving someone*, or *coming to understanding and being happy*, when exemplified, yield a better result than exemplification of *coming to understanding* alone. Indeed, there is a real paradox lurking; for, if *coming to understand being* were the supreme, unembeddable good, and if it is possible to come to understanding without realizing that it *is* the supreme good, then *coming to understand both being and also that understanding being is the supreme good* must surely be *better*. There are, then, deep problems with the principle A.M. uses to rule out many plausible candidates for the role of the good for which being is exemplified.

## VI. Is “Being” a universal?

I turn, then, to the second half of A.M.’s paper, the constructive project of developing a theory of categories. Here, there is more to be learned, I think. But I begin with some critical remarks about the assumption that the *summum genus*, *Being*, is a universal.

It is possible to deny that there is any such thing as a universal *Being*, a property had in common by absolutely everything; but nevertheless to take up such questions as: “Why is reality the way it is? Why are there any beings at all? What is reality like as a whole, that is, what are the most general ontological categories into which things fall?” Indeed, very many of the best minds of the last century who have taken these questions seriously would deny that “Being” names a universal. The sources of the doctrine that “existence is not a property” are numerous; one finds it in Kant’s famous criticism of the ontological argument (“Existence is not a predicate”); Russell and Moore defended it in their own ways; Quine invented a handy slogan: “To be is to be the value of a variable”; and Chisholm put the doctrine to use in the development of metaphysical theories covering a wide range of issues, theories that were always explicit about the things over which their variables ranged. In effect, Chisholm tied the abstract problems of analytic ontology (are there universals? events? propositions? facts? particularized properties or “tropes”?) to the adequacy of a given theory of ontological categories for the expression of successful resolutions of traditional philosophical problems throughout metaphysics, epistemology, and even ethics. In most respects, Chisholm should be seen as a real ally of A.M.; both take seriously the project of developing a theory of ontological categories, both think such a theory must be Platonistic (in the sense that it must admit that there are universals), both agree that there are necessary beings.<sup>3</sup> How far apart need A.M. and a Quinean like Chisholm be driven by their disagreement about *Being*?

My own inclinations are entirely Quinean: The notion of *existence* is completely and adequately captured, in formal languages, by the existential quantifier. And formalizations of theories couched in ordinary language are just attempts to make the original assertions more precise. All the logical notation must be introduced as abbreviations of words we already know and understand; and “( $\exists x$ )...x...” is simply shorthand for “There *is* something such that ...it...”,

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<sup>3</sup> For Chisholm’s final views on these matters, see *A Realistic Theory of Categories* (Cambridge: Cambridge University Press, 1996). For description of the role of Quineanism about existence in Chisholm’s philosophy, see Richard Foley and Dean W. Zimmerman, “Roderick M. Chisholm”, in David Sosa and Al Martinich, eds, *A Companion to Analytic Philosophy* (Oxford: Basil Blackwell, 2001).

which is not to be distinguished from “There *exists* something such that ...it...”. The two are synonymous, each can take the place of the other without changing the truth or meaning of the statements in which they occur. Of course we sometimes talk about things that do not exist as if they do: “There are three impossible figures he attempted to draw”, “There is only one thing he wanted to find, namely, the Fountain of Youth”, etc. But, when asked whether we really believe that there is such a thing as the Fountain of Youth, or whether there are in fact impossible figures waiting to be drawn, we always back off; we realize that there is something misleading about these uses of “There are...” and “There is...”.

This approach to existence is not, or at least need not be, in any way “anti-metaphysical”. In the hands of philosophers like Chisholm and Quine, it is simply a tool to keep the metaphysician honest about her ontological commitments. Nominalists are fond of denying that there any such things as universals or numbers or sets or whatnot. But can they affirm, speaking strictly and literally, all the things they believe to be true *without* saying things that, when given their most natural formalization, (i) imply statements that begin “( $\$x$ )...x...”, and (ii) could only be true if variables take universals, numbers, sets, ... as values? If not, then they are not being honest with themselves or with the metaphysicians who inhabit more abundantly populated realms; their metaphysical commitments outrun their explicit avowals.

The deployment of this strategy for answering questions about ontological commitment has been one of the chief factors in the rehabilitation of metaphysics that began at mid-century and gained momentum throughout the 70s, 80s, and 90s. Chisholm, Kripke, Plantinga, Lewis, Armstrong, and many more like them constitute a large proportion of the most influential philosophers of recent decades; and all are unrepentant metaphysicians (Quine’s doctrine of ontological relativity makes him a somewhat doubtful case). And all those I have named accept Quineanism about existence or “being”; it is how the metaphysician keeps himself honest. This raises two sets of issues: (1) Is there good reason for rejecting A.M.’s doctrine that Being is a universal? Or is the widespread rejection of the view just a matter of philosophical fashion? (2) Is A.M.’s insistence that Being is a universal central to his theory? Would giving it up hobble the rest of his system? Would he be unable to give the sort of answer he wants to give to the question why there are contingent beings without presupposing that Being is a universal?

I will not go very deeply into (1) here. But many of us have been convinced by Kant, Moore, Russell, Quine, and others, that “being” or “existing” is not a predicate that picks out any property; its work is quite different, not properly represented in formal logic (which is just a “tidying up” of ordinary language for the purposes of seeing logical relations among our thoughts) by predicates at all. Russell, and, more clearly, Quine show that we can very handily get rid of “exist”

as a predicate, so that any presumption that predicates connote universals does not decisively support positing one in this case. But beyond mere appeal to ontological parsimony (“why posit such a universal if we do not have to?”), there are positive reasons to deny that we are doing anything like ascribing a common characteristic to things when we say that they exist or “have being”. G. E. Moore made this point pretty decisively in his comparison of the logical relations among such sentences as “Tame tigers growl” and “Tame tigers exist”.<sup>4</sup>

Fortunately, much of what A.M. wants to say (with one exception, noted below) about the structure of reality, and why things exist, can be given a reasonable gloss within a theory of categories lacking a universal corresponding to the *summum genus*. The Quinean will insist that affirming that *there are* universals and particulars, etc. does not commit one to the existence of a universal expressed by forms of the verb “to be” and shared by both universals and particulars. Even if one accepts this, the views A.M. defends about the relations of differentiation and directedness among Categories could all be retained “as is”, so far as I can see. I am not sure whether anything resembling his theory could be developed within the context of a more nominalistic view; I cannot really see how to begin. But, no nominalist myself, I am not much interested in trying my hand at it.

There is another possible rapprochement between A.M. and those who think that to ascribe “being” or “existence” is not to ascribe a property. As early as 1918, it was noticed (by Russell, initially<sup>5</sup>) that one could always *introduce* a predicate possessed by everything—in particular, *self-identity*, or *being a y such that* ( $\$x)(x=y)$ . And one can simply put it to whatever use the friend of *Being* might have for “existing” as a predicate ascribing a universal. Those who would allow that self-identity is a universal may, then, agree that there *is* a *summum genus*, a universal shared by all things—although it is not what we attribute to a thing when we say that it *is*.

More importantly, this discussion should have made clear one very important thing A.M. has in common with the Quinean metaphysicians who refuse to countenance *Being* as a universal: Neither A.M. nor the Quineans are Meinongians. All parties reject Meinong’s distinction between what there is, and what exists. Acceptance of that distinction would require a radical departure from the theory of categories A.M. sets forth.

I am convinced that A.M.’s positive views would receive a much more

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<sup>4</sup> See G. E. Moore, “Is Existence a Predicate?”, reprinted as Ch. 6 in his *Philosophical Papers* (London: George Allen and Unwin, 1959).

<sup>5</sup> See “The Philosophy of Logical Atomism”, reprinted in Russell, *Logic and Knowledge*, ed. by R. C. Marsh (London: George Allen and Unwin, 1956).

sympathetic hearing within the present philosophical climate were it made clear from the outset that the spirit of the theory of categories to be developed could be accepted without countenancing a *summum genus* universal of *Being*, or at least with nothing more problematic than self-identity.

## VII. Could there have been nothing?

A.M. offers an original argument for the thesis that “there could not have been nothing, for Being exists of its very nature” (p. 24):

1. *Being* is, in fact, predicable of itself.
2. If a universal is in fact predicable of itself, then it is a necessary truth that it is predicable of itself.
3. If *Being* is, in fact, predicable of itself, then it is a necessary truth that *Being* is, in fact, predicable of itself (from 2 by universal instantiation).
4. So it is a necessary truth that *Being* is predicable of itself (from 1 and 3 by modus ponens).
5. So it is a necessary truth that *Being* exists (from 3, since “*Being* is predicable of *x*” implies “*x* exists”).

Therefore it is a necessary truth that something or other exists—i.e., “there could not have been nothing” (from 5 by existential generalization).

A.M. does not—and, in this context, *should* not—presuppose that *all* universals are necessary things, things that had to exemplify *Being*. He apparently believes that there are contingently existing universals (p. 25). But even were that not so, to assume that, just because something is a universal, it must be a necessary thing would be to presuppose something that so directly implies the truth of the conclusion as to render the argument relatively uninteresting. But in that case, premise two should be understood to mean that, if a universal is true of itself, this is an essential feature of the thing, something that holds *in any possible world in which the universal exists*. So 2 and 3 become:

- 2\*. If a universal is in fact predicable of itself, then it is a necessary truth that, *if that universal exists*, then it is predicable of itself.

- 3\*. If *Being* is, in fact, predicable of itself, then it is a necessary truth that, if *Being exists*, *Being* is, in fact, predicable of itself.

But from the consequent of 3\*, premise 5 and the conclusion obviously do not follow.

One must, in any case, be exceedingly careful not to run afoul of paradoxes of self-predication when invoking a principle such as 2 or 2\*. Grelling's paradox involving heterological and autological predicates (predicates that apply to themselves and predicates that do not apply to themselves) have material mode analogues in an ontological context: the universals *being self-exemplifying* and *being non-self-exemplifying*. To admit that there are such universals would be to fall into immediate paradox, since *being non-self-exemplifying* is self-exemplifying if and only if it is *not* self-exemplifying. Some philosophers would block such paradoxes by denying that attributions of self-exemplification are meaningful, or by asserting that they are all ill-formed, or neither true nor false. Such radical surgery would obviously make mincemeat of premise 2 in A.M.'s argument. To defend the principle, he must be committed to finding less radical ways to avoid the paradoxes of self-predication. I am not in a position to comment on the viability of the latter course; but it may not be hopeless.

### VIII. Axiom five

The theory of categories may have fallen upon hard times since Hegel, as A.M. says; but the field has not lain entirely fallow. Most notably, and influentially, Franz Brentano devoted a good deal of his energy to the elaboration of a theory of categories. His first book, *On the Several Senses of Being in Aristotle*, is devoted to the topic; so Brentano's theory of categories begins just where A.M.'s does (although Brentano defends Aristotle's list, trying to show that his categories can be "deduced"). Brentano continued to work on his own theory of categories until his death, and his later work on the subject was collected in his *The Theory of Categories*.<sup>6</sup> And, in our day, Roderick Chisholm and Gustav Bergmann, both looking to Brentano for inspiration, have returned the topic to respectability, if not center stage.<sup>7</sup> A number of philosophers closely associated with either Chisholm or Bergmann have continued the exploration of ontological categories in a broadly

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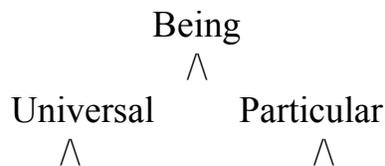
<sup>6</sup> Trans. by Roderick M. Chisholm and Norbert Guterman (The Hague: MartinusNijhoff, 1981).

<sup>7</sup> Chisholm, *A Realistic Theory of Categories*, and elsewhere; Bergmann, *Realism: A Critique of Brentano and Meinong* (Madison: University of Milwaukee Press, 1967), and *New Foundations of Ontology* (Madison: University of Milwaukee Press, 1992).

Brentanian vein.<sup>8</sup> And there are certainly similarities between the hierarchies of categories they develop and the “wheel” of A.M.

What A.M. brings to the table is something none of these other philosophers have, to my knowledge, attempted; namely, a theory about the relations between “nodes” on a table of categories that: (i) shows every branching to have a similar structure, (ii) finds repeated patterns of “generation” linking categories at various levels, a uniformity in all the differentiae, and (iii) a similar pattern among all categories that exhibit teleology. Most of those working in the area are concerned mainly with questions of ontological commitment; many are Quineans about existence, and almost everyone is engaged in the game of seeing how much of what we know to be true can be captured in canonical languages that quantify over very few types of things, without doing too much violence to our ordinary ways of expressing ourselves. Little if any attention has been paid to the possibility that the ontological categories might display anything remotely like the uniformity of structure posited by A.M. Even if he is wrong about some of the details, those who take the theory of categories seriously would do well to ask themselves the sorts of questions about structure that A.M. attempts to answer. If the monograph succeeds in provoking discussion of such possibilities, it will have contributed something significant to the discipline of ontology in the present day.

A typical theory of categories can be depicted as in figure 1.



**Fig. 1**

There is the *summum genus*, usually “*Being*” or “thing” or “entity”; and below that an exhaustive division into two classes of entities; perhaps the universal and the particular, as in A.M.’s scheme; or the necessary things and the contingent things, as in Chisholm’s. Obviously, A.M.’s wheel could be “unwrapped” to yield such a table, in which each path from the bottom up to *Being* would represent a kind of thing, or at least a possible kind of thing.

A.M. assumes (what many other category theorists would deny) that, corresponding to each term at a node, there is a necessarily existing universal. A.M. does not, presumably, believe that every general term or common noun

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<sup>8</sup> Compare, for example, Joshua Hoffman and Gary Rosenkrantz, *Substance Among Other Categories* (Cambridge: Cambridge University Press, 1994); and Reinhardt Grossman, *The Categorical Structure of the World* (Bloomington: Indiana University Press, 1983).

phrase introduces a universal (on pain of contradiction—remember “heterogenous”, “non-self-membered”, etc.). Furthermore, A.M.,—like David Armstrong and, perhaps, Aristotle—does not believe that *all* universals are necessary beings. In Axiom 2, A.M. speaks of “Every Category or necessary universal...”. This phrase *might* be taken to imply that a universal determines an ontological category if and only if it is a necessarily existing universal. Although this may not be what A.M. had in mind, if it is, A.M. would be committed to the following further axiom:

Axiom 5: (Axiom of Necessity) A universal is one of the Categories if and only if it is a necessary universal.

This supposition would provide a partial answer to a difficult question: At what level of abstraction or generality do we pass from ontological categories to more mundane categories that are similarly related as genus to species? Some have despaired of finding any sharp distinction here.<sup>9</sup> The proposed axiom insists that there is one, and provides at least one mark that accompanies the difference—albeit, not one that helps us terribly much in figuring out exactly *where* the line falls, at least not without some further information about which universals are contingently existing, which necessary. (Fortunately, there are further doctrines A.M. has on offer that may help, as shall appear in the sequel.)

This interesting proposal (which I suspect *is* intended by A.M.) is one place at which the Quinean about existence could not completely follow him. If “*summum genus*” does not introduce a universal, but is instead just a term for the universal set, or perhaps a plural referring expression, then Axiom 5 would not hold. Still, if one thought that at least *some* universals were necessary beings, but that there were special problems with admitting that “existing” or “*Being*” refers to a universal, then one might well accept an altered form of the principle; one could think of a table of categories as giving the real, necessarily existing kinds into which everything falls, while denying that there is any single necessary universal had by everything. One moves out of the range of necessary universals, or real ontological categories, at the bottom where one hits species corresponding to merely contingent universals, and at the very top, where no universal lies.

One result of the proposed axiom 5 is that the necessary side of the ledger will include, as genuine ontological categories, *infima species*, while the side that leads to contingent particulars will not. Suppose that, for instance, the number two is a necessary thing; then whatever universals it has will also be necessary things, and

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<sup>9</sup> See, for example, Peter van Inwagen, “Introduction: What is Metaphysics?”, in *Metaphysics: The Big Questions*.

so properly belong on the table of categories; and whatever individual essence or essences this number has will be lowest species but also belong to the theory of categories. This result may not be deemed unacceptable. But it is likely to upset the tidy structure of A.M.'s wheel, within which every category has exactly two mutually exclusive categories falling under it. *Being the sum of 1 and 1* is an individual essence of two, but so is *being one half of 4*. Unless these can somehow be dismissed as poor candidates for being universals, they, and many others, will all occupy the same node on the table of categories that terminates in numbers. I suspect that similar results could be reached even if numbers are rejected as necessary beings. Most necessary entities will stand in more than one set of individuating relations to other necessary entities.

## IX. Criticism of the Form-Matter analogy

The most pervasive structural feature A.M. finds among the categories is an analog of Aristotle's matter-form distinction at each branching of a category into subcategories. This hypothesis is at once highly suggestive, and, I shall argue, misleading. However, I have begun to suspect that there is something fundamentally right about the axioms it is intended to justify.

Axiom 2 implies that, if there are any categories at all, there is an infinite hierarchy of categories; indeed, that every attempt to trace a path from the *summum genus* down through all of the lower categories will have infinitely many steps. At least it implies this if a "Sub-Category" is itself a Category; and I take it that the capitalization indicates as much. One might well wonder whether there will be enough sufficiently general categories to satisfy this axiom. Far better, I should think, to modify the axiom:

Axiom 2\*: (Modified Axiom of Dichotomy) For every Category or necessary universal, if there is a distinct Category or necessary universal implied by it (i.e., if there is a necessary universal such that, necessarily, anything with the original Category has this universal), then there are two immediate sub-Categories, one of which is its "form" and the other of which is its "matter".

I put "form" and "matter" in scare quotes here, since it is clear that the relations in question need only be extremely attenuated "analogs" of the Aristotelian relations between a substance and its form or matter. Dividing (in thought) a substance into matter and form is a division of something that (in some sense) has both into two factors that combine to produce it. But dividing *Being* into *particular being* and *universal being*, or *universals* into *contingent universals* and *necessary universals*,

is a division that yields two things that cannot combine in anything approaching the relation of matter to form; *nothing* can have both particular being and universal being, or be a contingent universal and a necessary universal; it is a division into mutually exclusive categories. Another way to put the point would be to compare the branching structure of a table of categories with the branching structure one finds in passing from a substance to its proximate matter and form, the matter of which can itself be divided into *its* proximate matter and form, and so on. In the table of categories, each distinct path from the top down represents a single kind of entity, one that does not have anything from another path as a component in any sense. Each path is an independent type of entity. But on a table representing the exhaustive division of a substance into matter and form, no path from top to bottom represents an independent type of entity, but only a series of *components* of the original substance, none of which could exist without including elements from *other* branches.

In what, precisely, does the matter-form analogy consist? At bottom, it seems to me that much of the similarity is derived from the following: (a) each branching of a category on A.M.'s table results in exactly two categories, only one of which is truly predicable of, or exemplified by, the original category above it (i.e., the universal that is that category, not the things that exemplify it); and (b) similarly, each branching from a substance to the pair of its form and matter yields two things, only one of which—the form—can be truly predicated of, or exemplified by, the substance above it. This way of putting the comparison requires qualification, as A.M. points out; for the *entire* formal sub-category under a given category will frequently *not* be exemplified by the category above. Only the “new” element in the sub-category need be exemplified by the category immediately above (p. 37). The aspect of the formal sub-category that is not implied by the category itself is the only one that can be counted on to be exemplified by the higher category. This pattern that A.M. finds in the structure of categories could be called “one-sided upward-predicability”; it is the thesis that exactly one of the two subcategories falling below a given category contains a universal applying to itself and to the category above.

If one-sided upward-predicability is the only real basis for the comparison with hylomorphism, I do not think that the presence of a matter-form structure in the realm of *substances* significantly supports the hypothesis that the categories have one-sided upward-predicability; nor does it shed much light on why the categories should come articulated in this way. Before arguing that the analogy is slender, and that one-sided upward-predicability is really all there is to it, I should explain why I think it matters that the analogy is weak. After all, the structure is described independently of the appeal to hylomorphism; if A.M. were to agree with me, why should he not happily drop the terminology of matter and form,

while sticking to the hypothesis of one-sided upward- predicability? I think that the hylomorphic comparison is intended to bolster the hypothesis that the categories exhibit one-sided upward-predicability; and that, in fact, it is important to the argument of the essay that it do so. After all, the claim about categorical structure is a far-reaching one; it is used as a sort of lever or pump to generate an ever-widening network of categories that, especially on the “Universal-and-Necessary” quarter of the wheel, are posited almost entirely on grounds that there *must* be additional categories standing in relations of one-sided upward-predicability to higher categories. If one-sided upward-predicability is but one instance of a pervasive metaphysical pattern found elsewhere, it gains credibility; A.M. thinks that the analogies drawn between his categorial structure and Aristotle’s four causes make it more plausible to suppose that he did not just pull this structural principle “out of thin air”, but that he is merely taking notice of more examples of a widespread phenomenon (see especially pp. 31-34).

One reason for being suspicious of the analogy is that the point of resemblance (one-sided upward-predicability) is common to patterns of ontological division that have little to do with matter and form. Other, non-hylomorphic methods of separating a thing’s components (or factors, if “components” sounds overly mereological) into universal and non-universal aspects resemble the categorial branching structure equally well. Consider the recipe: Take a person, and think of one accidental property of the person, on the one hand, and the set containing the person and all the rest of her accidental properties, on the other; then divide the set into another pair, the first being one more of the accidental properties, and the second being the same set minus the new property; and so on. Each forking has a formal and material side: the accidental-property side is an element of the set above it, and it is exemplified by the substance in that set; while the person-side is not exemplified by anything (substances, or sets containing substances, are not the sort of thing that can be exemplified).

A.M. does not, however, rest all the weight of the matter-form analogy on the presence of something like one-sided upward-predicability in hylomorphic analyses of substance. He makes a further, two-part case for the depth of the analogy: “the material sub-category plays the two distinctive roles of matter: it is a component of a whole, and it individuates that whole from others with the same formal characterization” (p. 28). I shall argue that these supposed points of similarity are quite superficial.

Consider the first role: As A.M. points out, on the Aristotelian conception of substance, matter and form are very different sorts of components. Neither can exist alone, and they belong to quite different categories, the one predicable of or exemplified by the other, both belonging to a single more complex thing, the substance. By contrast, the two sub-categories under a category are *not* terribly

different, ontologically speaking, since each is predicable of things or exemplifiable by things; and nothing can have both. The sense in which *the category* has them as components is simply that it is equivalent to their disjunction. In the *literal* matter-form composite, matter and form constitute a composite whole in virtue of two asymmetrical relations, one holding between the matter and substance, the other holding between the form and substance: i.e., *being the matter of* and *being the form of*. It is not at all a matter of indifference which of the two components stands on the front end of each relation. In the categorical case, on the other hand, *being one disjunct of* is the analogous composition relation, and each sub-categorical universal stands in precisely the same relation to the more general universal. So, although there may be some very general sense in which pairs of sub-categories and matter-form pairs could both be said to be “components of” the things from which they “branch”, the mode of composition is radically different in the two cases.

Consider the second of the “two distinctive roles”: the material sub-category “individuates that whole [i.e., the category immediately above it] from others with the same formal characterization”, much as the matter of a substance individuates a particular substance from others having the same form. Suppose C is a category with formal and material sub-categories F and M. The idea seems to be that F (or that part of F that is distinctive, that is not implied by C alone—see definition of “proper subcategorical part”, below) is exemplified by C *and* by F. So here are two distinct things with the same form; in what respect do they differ? The answer A.M. gives is that C contains M (as a *disjunct*, I would emphasize), while F does not. First of all, it is not clear that C and F really share the same form in any sense that would leave them unindividuated. Notice that in all likelihood C will be exemplified *by M as well* (e.g., Necessary Universal Being is “Formal”, in the sense that it is a Form; but so is Material Necessary Universal Being). So what accounts for the numerical difference between these two universals with the same form? Having C begins to look like it is simply the wrong sort of universal to be doing *any* individuating, since so many different things can have it.

Consider the case of *Being* and its formal and material sub-categories. The formal sub-category, *being universal*, may be exemplified by itself and also by *Being*. But I cannot see that *being universal* provides anything close to the essence of *Being*, or that the question “What is it to be *Being*?” is adequately answered by the reply: “It is to be a thing that is universal” (compare p. 25). In fact, this sounds like the most unsatisfying yet true answer one could give to the question. It is as though one were to ask, “What is it to be the King of England?” and receive the answer, “It is to be a person”. Yes, according to A.M.’s theory, *Being* is a universal; but then so are ever so many *other* things.

How is it that A.M. comes to think that *being universal* is the right answer to

the “What is it to be...” question posed of *Being*, when every other universal also has this property? Or, to take another example, that *being a priori* is what it is to be the category *being cognizable*, when ever so many universals resemble *being cognizable* in being *a priori* accessible? Here I think we find the matter-form analogy leading A.M. astray. For perhaps these nearly empty answers only sound like they are even in the ballpark due to the fact that, when we ask a question of this sort about a certain *substance*, it may sometimes be adequate to simply offer the most salient (i.e., the substantial) form exemplified by the thing. If “What is it to be Spot?” is taken to be a question about the essential nature of this individual, the right answer might well be: “It is to be a dog.” Call instances of this use of the “What is it to be...” locution “fundamental kind questions”. This is clearly the way A.M. construes the question in the original Aristotelian context of the four causes (p. 32-33). Note, however, that the locution may be used (and often *is* used) *not* to ask a fundamental kind question but rather to ask for something on the order of an *individual essence*: i.e., a form or property or set of features essential to Spot and also necessarily such that, if anything has it, that thing is identical to Spot. Taken in this latter way, as a demand for an individual essence, or as an “individuation question”, the answer concerning Spot might be: “It is to be a thing that has the form *caninity* and that was originally composed of *this* parcel of matter” (assuming, for the sake of the example, that Spot is essentially a dog, and that any dog developing from the matter in Spot’s original embryo would *have* to be Spot).

Sometimes philosophers ask a question like “What is it to be me, or you?” when they do not know, or are bracketing their knowledge of, the basic kind to which persons belong. Then it makes sense to go on to discuss general questions about the nature of *all* persons, whether I might be a Cartesian soul, or a mere animal, or a brain housed in an animal body, etc. In this context, the question “What is it to be me” is a question about the fundamental kind to which *all* of us belong. But when the question “What is it to be me, or you?” is asked in a context in which all parties *agree* that persons belong to a certain fundamental kind (it is agreed that we are all souls, say; or that we are all hylomorphic compounds of “substantial form” and matter), then it would be bizarre to interpret the question as a fundamental kind question. In this context, the only sensible way to understand the question is as a demand for individual essences: “What is it in virtue of which I am me and not you, and vice versa? How are you and I individuated from one another?” For this reason it seems a bit bizarre for A.M. to ask the “What is it to be...” question about each ontological category, and take himself to be asking a fundamental kind question—i.e. a request for a single, very general form or universal exemplified by the category in question. After all, he has already argued that each category, and in particular *Being*, *must* be a universal; so, when he asks the question of *Being*, it has already been settled that *Being* belongs to the very

general kind “Universal”. One would have expected, in the context of the assumption that *Being*’s ontological kind is *universal*, for the question “What is it to be *Being*?” to occur as an individuation question, a request for a conjunction of universals that individuate *Being*—for instance, its genus and differentia, if it had them. But of course individuation in those terms cannot go on forever (unless either there is no *summum genus*, or there can be an infinite series of categories with both a beginning and end). At some point, there will be at least one universal that just is what it is, that is not a species of some higher category; and surely *Being* is the best candidate in the ontological universe for such a position. And many universals are ill-suited for individuation in terms of species and differentia; *being one kilogram* is something like a species of the universal *having mass*, but what could be “added to” the property *having mass* to yield *being one kilogram*, rather than, say, two kilograms—unless it is *being neither two nor three nor...kilograms*, which would yield nothing like the sort of noncircular individuation that individuation questions are requesting?

So there need not *always* be helpful answers to individuation questions; and perhaps there isn’t one when one asks what it is to be *Being*. On the other hand, one can say extremely informative things about *Being*, if A.M. is right; its “structure” can be described in great detail; and if the detail is sufficiently great, and can be grasped without much explicit understanding of the notion of *Being* itself, exemplifying this structure may well qualify as an answer to the individuation question. Indeed, A.M. seems *almost* to agree that the right answer to the question “What is it to be *Being*?” *would* be an individuating one along these lines. Imagining the wheel filled out in all directions, he says: “This would be the specification of every necessary universal aspect of *Being*. By displaying the necessary universals it would display the *form* of *Being*—the full characterization of what it is to be the privileged universal that is *Being*” (p. 30, emphasis in the original). To provide this sort of full characterization would be to answer the *individuation* version of the “What is it to be...” question; but A.M. has already said that the formal aspect of *Being*, i.e., that aspect of *Being* that properly answers what *he* means to be asking by the question “What is it to be the privileged universal that is *Being*?”, is *not* the complete structure but merely the very general (and exceedingly uninformative) aspect of its *universality* (an aspect it shares with many other things). So there is clearly a tension in A.M.’s own thinking; the natural way to take the “What is it to be...” question in his context is as a request for individuation, and A.M. himself does this at least once; but, in order to make the proliferation of categories coincide with a demand for an answer to “What is it to be...”, he must give it the fundamental kind reading instead.

But if “What is it to be the ontological category *Being*?”, “What is it to be the

ontological category *Universal Being*?”, “What is it to be the ontological category *Necessary Universal Being*?”, etc., are fundamental kind questions, I do not see why anything that is an answer to one is not just as good as an answer to the others. *Being* is a universal, but it is also necessary, a form, and a self-specifier; *being universal* is necessary, but it also has being, is a form, and is self-specifying; *being a necessary universal* is a form, but it is also has being, is a universal, is necessary, and is self-specifying.... A.M. might respond that each category is slightly different, implying explicitly something not implied by the categories above. But, at least in the case of the series *Being*—> *Universal*—> *Necessary*—> *Formal* etc., this hierarchy is justified entirely by the alleged need to find ongoing one-sided upward-predicability, something true of the higher category that is somehow *especially* true of a next lower one and so generating another category of some sort not exemplified by the higher. However, at least in the case of the two pairs *Formal-Material* and *Self-specifying-Demarcational*, the material members of the pairs seem to me to be generated by *fiat*. Why say that *Necessary* splits into *Formal—Material*, etc. rather than saying that the pattern is: *Necessary: Self-specifying—Demarcational*, *Self-specifying: Formal—Material*, *Demarcational: Componential—Individuative*? In this quadrant of the wheel, the only grip I have on the dichotomies introduced is that they are somehow supposed to resemble the branching of substance into matter and form. It does not help to be told that “the material element that distinguishes one universal from the other” is “Material Necessary Universal Being”; is this is “the obvious candidate to be the matter of Necessary Universal Being”? I guess so, since it is introduced, in essence, as nothing more than ‘whatever universal is the material member of the pair coming below *Necessary Universal Being*’; but why think there *is* such a thing, apart from the supposed analogy between branching in the table of categories and branching of substance into matter and form? I draw the same blank with the introduction of “Demarcational” as the material element in the next pair. “Demarcational” is a name for that aspect of form in virtue of which a thing with the form is “of one kind as opposed to another” (p. 28); but is that not what *all* forms are, by definition—that in virtue of which things are of the kinds they are? How is this aspect of them something extra, distinct from their being forms? And why isn’t it self-applicable and applicable to all the categories above it, and indeed to every category and indeed to every universal (with the possible exception of *Being* itself, which is exemplified by *everything* so that there can be no question of things being ‘made to be beings’ as opposed to things belonging to some other category)? It and each category above is a thing in virtue of which things with it are of one kind rather than another, since they are all forms. I may be missing something, but so far as I can see, “demarcational” is simply being pressed into service as the material member of the pair because something is needed if the matter-form

analogy is to be continued. Appeal to this new category as the difference between Formal Necessary Universal Being and Self-Specifying Formal Necessary Being does not help me at all in seeing a distinction where I was unable to see one before (p. 28).

Why not just say that the category *Being* is formal (in the sense of being a form), universal (in that everything has it), self-specifying (that is, self-exemplifying), demarcational (in the sense of making things that have it to be beings as opposed to...; the difficulty in filling in the ellipsis takes us back to one of the reasons for denying that *Being* is a universal or form, but A.M. is committed to *Being*'s being demarcational); and have done with it, not positing further structure on the slender basis of a supposed hylomorphic analogy? As noted above, uncompromising commitment to ongoing one-sided upward-predicability leads to the implausible proliferation of an infinity (or infinities) of categories—each distinct from every other, but, at some point, indistinguishable by us except in such terms as “the formal category that is at the end of the chain beginning at Necessary Universal Being and following the path material-formal-formal-material-formal-material-material”, and so on).

## **X. The rather large grain of truth behind the matter-form analogy**

I do not, then, see any basis for positing a deep and illuminating analogy between the branching of categories into sub-categories and the hylomorphic analysis of substance in terms of matter and form. But I *also* do not think that this is the end of the road for A.M.'s hypothesis concerning the most fundamental principle at work in producing the structure of the categories: i.e., the principle that each category has one sub-category predicable of itself and predicable of the original category, and another sub-category neither predicable of itself nor predicable of the original category. One might defend the claim, initially, by induction: the categories which strike us as the most general are necessarily equivalent to disjunctions of a pair of properties that have this feature; and the categories which strike us as *not* sufficiently general to belong to the field of ontology, even when they do happen to bifurcate into two mutually exclusive sub-categories, (e.g., *jade* and its two varieties, *jadeite* and *nephrite*) definitely do *not* have this feature (the procedure, recall, is to see if the category itself, i.e. the universal, exemplifies a universal that is one of the subcategories; and the category *being jade*, since it is a universal, is not made of either sort of material). In fact, this may provide a genuinely useful mark of the boundary between *ontological* categories and the more mundane categories such as *mammal* and *acid*: We are still dealing with categories that belong to ontology as long as each branching includes exactly one

sub-category such that its “new” element is predicable of both the sub-category itself and the original category; when this pattern cannot be carried forward any further, we have left the realm of ontology behind.

Indeed, I believe that a plausible argument can be made in defense of the pattern. Let me first state, in my own way, what I take the pattern to be. (P), below, is meant to be equivalent to the combination of axiom 2 (purged of the implication that every chain of ontological categories is infinite in length) and axiom 3. But (P) makes explicit some elements of A.M.’s notion of “self-application” that are not made explicit in the axiom itself.

To simplify the principle, I first define the notion of a “proper subcategorical part” of a category (here and elsewhere I use “property” and “universal” interchangeably):

(D) *Q is a proper subcategorical part of P* =df There is an ontological category R such that: (1) R is immediately above P, and (2) P is equivalent to the conjunctive property Q&R (a property something has if and only if it has both Q and R).

(P) For every ontological category P with another below it, there are exactly two *immediately* below it, a pair of properties Q and R such that: (1) Q and R are mutually exclusive and exhaust all the things that have P, (2) Q is equivalent to the conjunction of P and a proper subcategorical part, S, (3) R is equivalent to the conjunction of P and a proper subcategorical part, T, (4) either S is exemplified by Q and P (i.e., Q is the formal subcategory), or T is exemplified by R and P (i.e., R is the formal subcategory), but (5) not both.

At times, A.M. says things that suggest that the hallmark of the formal subcategory is that it applies to itself; but his considered opinion is only that the proper subcategorical part of a category P applies to the category in question (*not*, in fact, to *itself*—at least that is how the application is made in the case of “the stable”, p. 37) and to the category under which it falls. A minor quibble: It is a bit misleading to say “self-application [is] the hallmark of form” (p. 35) when in fact axioms 2 and 3, on their official interpretation (guided by the remarks on p. 37), do not directly require that *any* universal be true *of itself*. There is no doubt that A.M. believes that many formal categories are in fact self-exemplifying, and that many proper subcategorical parts of a formal category are self-exemplifying; but they need not be in order for there to be formal categories in the precise sense A.M. defines.

I find it difficult to defend this doctrine in the context of A.M.’s own table of categories, simply because I often do not feel sure what kinds of things are

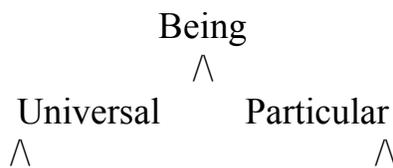
supposed to fall under them. This is especially true of the upper left quadrant: E.g., what is an instance of something that exemplifies demarcational formal necessary universal being, and something that *instead* exemplifies self-specifying formal necessary universal being? I draw a blank, and I do not find an example to help me. So I will attempt to defend the view in the context of a slightly different table of categories, one I get from A.M.'s by trading in distinctions I do not understand for ones that I do, and eliminating some problematic categories altogether. What follows is, therefore, at once a criticism of some of the particulars of A.M.'s table and a defense of (P). As the categories become more specific, A.M.'s hypothesized pattern, captured in (P), remains plausible; it can be taken to show us where ontology ends and other, more specialized studies begin. And, although it is not “matter-form” structure that justifies the expectation that the pattern will be followed, there *is* a plausible explanation of why it applies. I shall begin with the explanation—the reason we should think that the pattern reflects some deep fact about the structure of being.

The ontological categories have two extremes: On the one end there are the denizens of Plato's heaven—independent of things in other categories, necessarily existing, unchanging, abstract, not limited to any one place, and so on. I shall suppose that necessary universals are the paradigm case; and the ideal set of features they exemplify may fairly be characterized as ones implying various sorts of *independence*. And at the other extreme there are the most ephemeral of contingent particulars, whatever they should turn out to be—perhaps the briefest of events, or even mere aspects of the briefest events, dependent upon particular events for their existence; in any case, things that are as unlike abstract necessary beings as a thing can be, as dependent upon things of other sorts as possible (the more dependent things of a certain a category are, the more dependent will be the subcategories that include things dependent upon them). Between these extremes there are many intermediate ontological categories, each divisible into two classes of things: One that is more independent, and so resembles universals in some respect; and another that is less independent in virtue of failing to resemble universals in this respect. The feature that the more independent subcategory has is the proper part of the subcategory that applies both to the things falling under that subcategory and also to things that are universals—since it is a respect in which these things resemble universals. But all categories are, in fact, universals—they are necessary things, exemplified by their instances. So, naturally, the proper subcategorical part of the universal-like subcategory is true of both the category itself and the category above it—and of any other universal, for that matter. When one can no longer find two classes falling under some category, one of which resembles universals more than the other, then the job is done. Ontology, on this picture, involves sorting things into classes on the basis of

degrees of independence—charting the ways in which things “approach” and “fall away from” the Forms of Plato’s heaven.

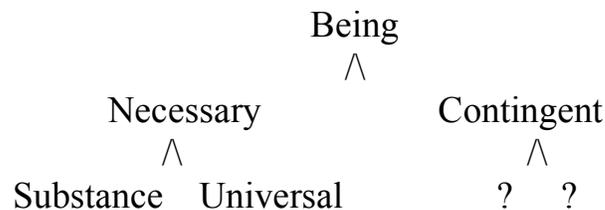
Now I shall examine the particulars of A.M.’s table, criticizing some of his distinctions and substituting some that seem more plausible to me. At each branching, I defend the thesis that the division fits the above pattern.

The point of using the wheel rather than the traditional table of downward-branching dichotomies is to allow for easy representation of the cross-category relations of differentiation and direction. Since these relations are not at issue here, the old-fashioned table will suffice. Here is A.M.’s beginning:



**Fig. 1**

The division into universal and particular may be a natural first step; but it is not unquestionable. According to mad-dog Platonists like me, all universals are necessary beings; and some of us also think there is at least one necessary particular—a thing which, although not a universal, although not something that other things could be said to exemplify, nonetheless *had* to exist in the strongest possible sense. Given these two doctrines, the distinction between the necessary and the contingent could not fall under the category Universal; but it could not *simply* fall under Particular, either, since Universals are necessary, too. So I would start with a table of categories somewhat like Chisholm’s in *A Realistic Theory of Categories*:



**Fig. 2**

(I have put a “?” under each side of Contingent, because the way Chisholm fills in those categories does not very clearly satisfy (P).) My reason for thinking that all universals are necessary is, basically, this: “what is possible doesn’t change as you go from world to world”; the possibility that there be Fs requires that the property

*being F* exists; so any universal that could possibly be instantiated exists. But not everyone accepts both premises, obviously; and this is not the place to defend my own views on the subject.

So I shall pretend to accept A.M.'s views: that there can be universals that exist only contingently, and that there is no necessary substance or necessary individual. On these suppositions, I would start out just as he does, with the *summum genus* equivalent to the disjunction of Universal being and Particular being, the Universals themselves falling either into the category of the contingent or the necessary. Obviously, the necessary universals more closely resemble—because they *are*—the paradigms of independent beings; while the contingent ones are less independent. As I argued above, the further dichotomies postulated by A.M. seem to me to be quite unmotivated, given the general failure of the division of categories to conform to a matter-form pattern. Do the necessary universals include further grades of independence? If, as A.M. assumes, “one universal can be part of what it is to be another universal”, then surely there are, as he says, “relations of ontological dependence and priority” among them (p. 44). So a further division between the simple and the compound is possible (although there are great difficulties surrounding attempts to make a principled distinction between the really complex—e.g., *being red and round*—and the *faux* complex—e.g., *being either red and round, or else red and nonround*).

Take some simple property, perhaps phenomenal redness of a very specific shade; do the instances of it show any signs of falling naturally into two groups, the one resembling universals more than the other? I think not, at least not in the case of a completely determinate property. But are determinables, such as *being colored*, simple, or are they complex—disjunctions, perhaps, of the determinates falling under them? This is a vexed question; but I am inclined to think they are *not* mere disjunctions. If not, and if the division between determinates and determinables is exhaustive, then it is a good candidate for being the next dichotomy. *Being determinable* is the proper subcategorical part that applies to both the subcategory it introduces, and the category of simple universals under which it falls; while *being determinate* does not. So *determinable necessary universal being* should be the more independent side. Is it? If something is less dependent the more easily it is instantiated, then, yes; there are many ways in which something can fall under a determinable, but falling under a determinate is trickier—there are fewer options. Assuming that *Being* is itself a simple determinable, it comes out as the most independent of all categories by this test—a happy result. This line of reasoning is more convincing on the side of the contingent universals. Such universals are, presumably, contingent upon the existence of their instances. Fully determinate properties are dependent upon the exemplification of just one property; while the exemplification by something of

any one of the several determinates falling under a determinable is enough to insure that it exists. It is more robust than its determinates.

I suppose that further grades of dependence may be found on the side of the complex universals, both contingent and necessary. By the same principles applied to determinates and determinables, I should think that a property formed by disjoining two simple properties would be more independent than their conjunction; the disjunctive property is more easily exemplified. If, for each property, there is its negation (a property necessarily such that it is exemplified by everything that lacks the other), then one might think that, for each pair of a simple property and its negation, one is positive and the other negative—a mere privation, or absence. Given the distinction, it would seem natural to say that the positive are less dependent than the negative. Most complex properties are made out of more than one simple property, and so are dependent upon these parts; a negative property seems complex, in a way, including a positive property as constituent, even though there is no further part of the property that is itself a property. Still, each contains something from which it is distinct, and upon which it is therefore dependent.

I have assumed, here, that the same principles of division can be applied under more than one head. A.M. seems to assume that this is not the case; but I see no reason, *a priori*, to think that only one category can be split into a pair of ontologically interesting, exhaustive, and exclusive subcategories by the same pair of proper subcategorical parts. It is not clear to me why that should have been thought to be a consequence of the matter-form analogy. Perhaps one should rather see the category of Universal as splitting into four subcategories: determinate-necessary, determinable-necessary, determinate-contingent, determinable-contingent. But if we are committed to the dichotomous tree (and there is no reason not to be), and we want to discover *each* exhaustive and exclusive division into a pair of properties that satisfy (P), I see no escape from repetition.

## **XI. The telic and the efficient**

Although I have introduced categories foreign to A.M.'s wheel, they need not be seen as in competition with his account, at least not within the upper left quadrant, the realm of contingent universal being. I had a great deal of difficulty understanding the telic-efficient distinction, but it might be one that I could accept as categorical. Suppose that the telic property in question is, as in A.M.'s example, digestion—*being a digestive system*, a property exemplified only by things that have digestion of food as their end or purpose. Many different types of digestive system can satisfy this end, and each will do so because of the concrete set of

dispositions it exemplifies. So take one of these sets, for instance the set of dispositions of a particular chicken's gullet. It is poised to grind up grain: the little rocks are there, the muscles are prepared to squeeze, etc. So far, so good. Now there is a bit of a problem about whether the category of the telic really is normative, as one-sided upward-predicability requires. A disposition such as *being disposed to explode* counts as telic because it points toward some type of event "outside of itself", it includes a universal that need not be instantiated in order for something to have the disposition. And a norm, such as *being a digestive system*, also points towards types of events "outside of itself". What is the difference between a mere disposition to F in such and such circumstances, on the one hand, and being governed by a norm that says one should F in such and such circumstances, on the other? It is not crystal clear, of course; but one noticeable feature is the fact that one can have the latter norm even though one lacks the appropriate dispositions; that is what happens when a thing is broken. A chicken's digestive system still has digesting food as its end, even though it is unable to do so because the absence of rocks robs it of the appropriate dispositions. Is the category *Telic Contingent Universal Being* like this? The things that have it are, of course, other universals: dispositions and norms. It is hard to see how anything like the phenomenon I have just described could be true of the exemplification by one property of *being a telic contingent universal*. The explanation A.M. gives, the sense in which he regards the universal *being a telic contingent universal* as itself telic has to do with its role in making possible our understanding of necessary universals; "...Teleology finds its end or purpose in the Necessary, which then gets comprehended as a result of the final achievements of Teleology" (p. 58). I have already criticized A.M.'s arguments for the claim that the good for which contingent being is exemplified is coming to understanding.

I have some further problems with the telic-efficient distinction, stemming from the difficulty I have in seeing the difference between the possession of a set of dispositions and the exemplification of a property corresponding to it from the category *General Efficient Contingent Universal Being*. If the general properties include ones such as *having a property in virtue of which one falls under such and such laws*, laws governing the dispositions of the thing (and the example of potassium and water, p. 34, suggests that this is what he has in mind), I do not see a clear difference between the possession of such a property and the possession of the set of dispositions it entails.

## **XII. The particulars**

On the particular side, A.M. has the Comprehensible and the Spatio-temporal; the

former is said to be those aspects of particulars that can be “taken up in the process of coming to understanding” (p. 37). Here is one way to understand A.M.’s brief and rather cryptic remarks: The world of particulars has elements that can be grasped by the intellect, which is to say they can be understood as belonging to or as instances of general kinds; but it also contains elements that cannot be grasped in the same way, that cannot be understood as belonging to or as instances of general kinds. And (since this is ontology) our inability is an *in principle* inability, due to the fact that the things really do not belong to or instantiate general kinds, not due to our own limitations. A.M. further hypothesizes that all such things are spatio-temporal.

If *this* is the sort of distinction A.M. has in mind, it is very like the one sometimes made between two “parts” of an individual: its properties, and the substratum or “bare particular” that instantiates them. Some regard the individual as something like a bundle including properties and this underlying thing; but if these properties are, indeed, universals, then they belong on the other side of the table of categories. Others (C.B. Martin, for example<sup>10</sup>) hold that the properties to be bundled together with the substratum are *not* universals, but local, nonrepeatable, spatially located “property instances”, “tropes”, or (following Locke) “modes”. Many who believe in modes have no use for an additional thing, a substratum, not composed of the modes.<sup>11</sup> But if one thought there were both modes and substrata, one could have a distinction among the particulars of the sort A.M. seems to be positing. But it would be a mistake, on this way of construing “the Comprehensible”, to contrast the modes of spatio-temporal things with “the Spatio-temporal”, since the instances of properties are located right where the things are that have the instances. And furthermore, one might want room in one’s ontology for nonspatial particulars (Cartesian souls and the like).

Clearly, this distinction satisfies (P), and for just the right reason: the modes belong essentially to kinds, corresponding to the universals of which they are instances; they mirror the structure among the universals, in a way that the bare substrata do not.

The distinction between the Cognizable and the Sensible makes perfect sense on the “mode interpretation” of the Comprehensible. I am inclined to limit the property instances that can be “immediately given” to phenomenal qualities—features of our experiences or, perhaps better, of *us*, and not features of “external objects”. It would be odd to say that such properties are *not* cognizable (we can think about them, we recognize that some are similar to others, and so on). So I

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<sup>10</sup> See his “Substance Substantiated”, *Australasian Journal of Philosophy* (1980).

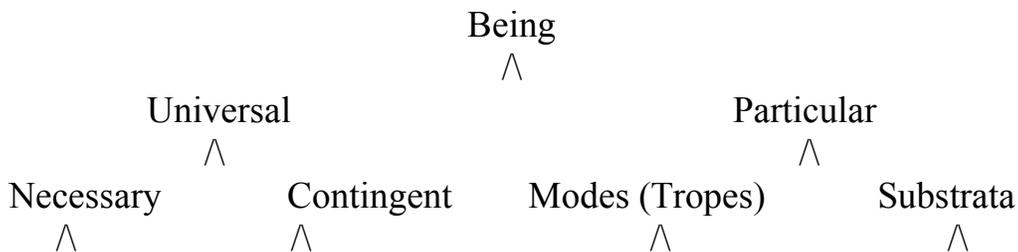
<sup>11</sup> See, for example, the classic statement of the trope theory by D.C. Williams, “The Elements of Being”, reprinted in *Metaphysics: The Big Questions*.

should rather put the distinction in question as one between properties that *can* be immediately given, and properties that *cannot*. It is not at all clear to me that one or the other better resembles the paradigmatically independent universals. But that strikes me as *just what we should expect*: for here we have reached a distinction, between sensory and nonsensory properties, that has its proper home within the philosophy of mind, not ontology. The bold hypothesis, (P), and my explanation of it, seem to be holding up.

I believe that similar problems beset the a priori-a posteriori division of the cognizable. And although there are good grounds for drawing the Qualitative-Structural distinction among sensory properties, and good reasons for keeping these categories within the realm of ontology; they are, in a sense, the reverse of A.M.'s. The structural is said to apply to itself; but Structural Sensible Comprehensible Particular Being need not be structural in anything like the way instances of it are. It appears to be a mere conjunction of properties, and mere conjunction should not automatically make a property structural; hearing a beep and feeling a pain is conjunctive, but it does not imply any particular sort of structure in the things that have it—I should regard it as qualitative. So, if indeed the qualitative-structural distinction has any application in the realm of the categories, I should think they would all turn out to be qualitative. In any case, the qualitative strikes me as a better candidate for the more independent member of the pair; structural properties include a number of properties and relations, and the exemplification of these is required for there to be instances of the structural properties. Qualitative properties may be simple, and in any case are not dependent upon instances of components standing in any particular relations.

### XIII. Conclusion

My table of categories would, then, start out as in figure 3:



**Fig. 3**

At least, that is how it would look if I believed in modes, contingent universals, and the impossibility of a necessary substance.

Obviously I have only begun to scratch the surface here; what I provided was

a few applications of A.M.'s fundamental thesis about the structure of the categories, (P), under the new interpretation or justification I have offered him. I am convinced that further exploration of the consequences of such a theory for ontology would bear interesting fruit; I hope that someone will take them up. Who better to do it than A.M. himself? But perhaps he will, instead, find an even better way to come to understand the structure of the ontological categories.