

Coming To Understanding

By A. M. Monius

Is there any substantive knowledge of the nature of things that transcends and makes more intelligible the detailed knowledge provided by the natural sciences? Near the end of the *Tractatus*, Ludwig Wittgenstein wrote “We *feel* that after all the results of natural science are in, the real questions still remain to be answered.” Yet his own despairing conviction was that the sense of the world and the contents of ethical demands are strictly inexpressible, and so could never have the status of knowledge. Wittgenstein’s despairing conviction has a revealing history. His view, *viz.* that the fundamental structure of our language prevents us from giving sense to the questions which transcend empirical science, recapitulates Immanuel Kant’s claim that the most general Categories of our thought, the very Categories of substance, causation and necessity with which we are tempted to frame world pictures, only have legitimate application within sensory experience. And Wittgenstein’s *Tractatus* in its turn was an inspiration for Rudolf Carnap and the Vienna Circle. These self-styled “Logical Positivists” streamlined and demystified Wittgenstein’s outlook by insisting that the only “cognitively meaningful” statements, besides stipulative or merely conventional definitions, were the verifiable or falsifiable statements which constituted the domain of empirical science. No substantive knowledge of the world was available *a priori*, i.e. independently of the operation of the senses. Which was to say that there is no original source of substantive knowledge of the world besides observation. Philosophy in general therefore had no ground to occupy. Metaphysics—a subject that Aristotle characterized as the study of Being qua Being—was treated as a subject devoid of a subject matter. At best, the great works of metaphysics were taken to represent a kind of abstract poetry, which happened to have appealed to certain quirky sensibilities.

Much of the best work in philosophy over the last century has consisted of one or another attempt to escape from this stultifying beginning. The rumors of the death of metaphysics have been greatly exaggerated. This should come as no surprise, for the very kind of understanding provided by the natural sciences is itself an impetus to metaphysics. The defining focus of the natural sciences is the explanation of events in terms of antecedent events and very general non-accidental regularities or laws of nature. Why does this sort of explanation work at all? Is it that

the laws of nature represent a real structure of necessitation among universals, which we come to grasp in more detail as natural science develops? Is this structure of natural law absolutely necessary in the sense of being incapable of being otherwise, or is it something contingent that in turn needs explanation? If the structure of natural law is merely contingent, as it seems to be, then surely the explanation of why this structure has the character it does cannot ultimately consist in another empirical explanation in terms of antecedent events and natural law. Here we are in the midst of metaphysics, the quest for a more global understanding of reality than science attempts to provide.

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.

The traditional metaphysical name for reality as a whole is Being. Being is exemplified in individual existents or beings. Metaphysics, as we shall understand it, is the study of Being qua Being in that it views reality as a whole. Which is to say that it views individual beings as exemplifications of Being and it inquires into the structure of Being.

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?

To explain reality in the most general and comprehensive way would be to say what it is and why it exists, to articulate its form or nature and to extract its purpose. Why does this author suppose that he can advance these antique, impassable questions? Partly because of an innovation in method, the details of which will emerge below. Yet the reader may rightfully ask for more than this vague promissory note at this stage, so that prior to the full development he can see the direction in which we are moving.

A useful division of metaphysics distinguishes speculative cosmology from analytic ontology. Speculative cosmology is the enterprise on which we are engaged, namely to provide a large-scale account of reality, its origin, purpose and how it hangs together. Analytic ontology is most famously exemplified by Aristotle's *Categories*, an account of the fundamental Kinds of Being, where these Kinds of Being or Categories are best understood as necessarily existing universals. *The most general methodological insight shaping the present work is that analytic ontology is the key to speculative cosmology.* This is because the structure of Being or of reality as a whole is the structure of necessary universality whose various distinguishable aspects are none other than the Categories themselves. Therefore to the extent that we can chart the structure of the Categories and their necessary interrelations, to that extent we can gain insight into the structure of Being and the purpose or point of its exemplification in individual beings. With the notable exception of Hegel, the flaccid, arbitrary, list-like quality of the theories of the Categories provided by the tradition has obscured the pivotal importance of the theory of Categories for an account of the structure of Being, and so of the nature and purpose of reality as a whole. *When we comprehend the real Categories and the structuring relations among the Categories, the nature and purpose of reality as a whole will be laid bare.*

Why is Being Exemplified?

Why is Being exemplified or instantiated? Equivalently, why are there individual beings? Among individual beings there are contingent universals and all the particular things that inhabit our world. Like the merely contingent universals—those universals not deducible from the necessary structure of Being—none of these many particulars is a necessary existent. Each might have not have existed. The same holds for the natural kinds, if any, which classify these particulars in an ideal scientific taxonomy: Not only might there have been no electrons, but the natural kind Electron would not have existed if there had been no electrons. Likewise for the laws or relations among natural kinds that provide efficient causal explanations of particular detail. Had there been no electrons, there would have been no laws governing them. The laws of nature are as contingent as the kinds they relate. For like the existence of particulars, natural kinds and the laws that relate them are not deducible from the necessary structure of Being. 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. This original cosmological hypothesis is better placed to account for contingent beings than any of its more familiar competitors: Theism, Spinozism, and the Many Worlds Hypothesis.

The Theist says that contingent being was created from nothing by a perfect particular, an all-powerful and all-knowing particular existent—God as conceived by traditional natural theology. Contingent being is an artifact of a creator, who is a perfect particular existent. 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. But then, as Baruch Spinoza famously elaborated in his *Ethics*, the result of forging these necessary links is to obscure the difference between God and so-called contingent being. Contrary to the original intention of Theism, necessarily created contingent being is not contingent at all.

Thus Spinoza's name for reality was "*Deus sive Natura*"—"God or equivalently Nature." Spinozism is an unrelenting series of purported deductions from the alleged insight that God or Nature is absolutely necessary in each and every detail. The trouble with Spinozism, like the kind of Theism which mutates into it under the pressure of cosmological questioning, is that there is an original intuition

of contingency, at least with respect to finite particulars. All of our practical life including most notably planning, hope, praise, blame and regret is built around the idea of open possibilities that become closed with the passage of time. So much of what might have existed does not and much of what does exist might not have. This thing that was to be explained—the *contingent* existence of the many particulars which make reality up—is, on views like Spinozism, explained away. For according to Spinozism, all the many apparently contingent particulars are in fact, each of them, necessary existents, necessary aspects of a necessary being. Likewise, 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.

The same misstep is to be found in the “explanation” of contingency by appealing to multiple worlds, each taken to be as real as any other. The Many Worlds Hypothesis states that all the possible ways things could be are equally real and are all included in a super-ensemble which exhausts reality. Since this ensemble includes all possibilities, the ensemble and all its parts and aspects are necessary, just as with Spinoza’s *Deus Sive Natura*. We inhabit one (or perhaps some) of the worlds which make up the ensemble and so what is necessary merely appears to be contingent from a local point of view. Once again, this falsifies our original intuition of contingency. What we wanted was the explanation of *contingent* existence, not an account that tells us that it is an illusion and so not there to explain at all. The explanation of why Being is exemplified, of why there are contingent existents, must therefore explain without necessitating. And there is a deep puzzle as to how this result could be achieved.

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.

Here is the sort of explanation that would do what is required. There is some-

thing—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. To understand this end is to understand the point of all contingent coming into being and passing away. Because this explanation is purposive it accounts for contingent existence without covertly treating it as necessary. For a purpose explains without necessitating what it explains. “The spider built the web in order to catch and eat the fly.” does not entail that the spider had to build the web. Nonetheless it makes the web-building intelligible. Similarly with a plant’s turning toward the sun for the sake of nourishment, or a dog’s burying a bone in order to chew on it later.

Of course, the striking thing about this explanation of the existence of contingent beings is that as with the plant turning toward the sun, the purpose in question is not the result of anyone’s intended plan. As we shall see, Being itself is necessary universality. It has no will, no intellect, no drives and thus no plans. The purpose that explains the existence of contingent beings is an impersonal purpose. Understanding this is crucial to making full sense of reality. For an appeal to a personal plan leaves many aspects of reality behind as unassimilated embarrassments.

“Impersonal purpose” will strike many as an oxymoron, since the dominant idea of purpose is that it requires a planner. But the 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. The trick is to make room for the possibility that what we know as intentional goal-directed action is just a late stage in the development of an impersonal purpose, which finds its expression and culmination in intentional activity.

The idea that at the heart of intentional explanation there is an appeal to a notion of something’s happening because it should applies in the case at hand. For consider Theism’s explanatory appeal to the creative intentions of a divine person. Theists claim that their God is a perfect particular who creates contingent particulars in order to love those many things. In appealing to purpose this explanation may have the right form. Nevertheless, upon reflection, in appealing to a personified intention the Theistic explanation can be seen to have the wrong content. If our intuition of the contingency of finite particulars is to be respected, then God’s hav-

ing and acting on this creative intention must be contingent. God must have the capacity to form and act on this intention; but it must be possible for this capacity to remain unrealized. What then explains the realization of a capacity that could remain unrealized? On pain of an infinite regress we cannot now appeal to some other contingent intention. What then is left is to explain the realization of God's capacity to form a creative intention? Only an objective final end: as it might be, the capacity was realized for the sake of this or that outcome that the existence of finite particulars secures. To be concrete, let us say that God formed and acted upon his creative intention for the sake of the turning of finite particulars toward the Divine. This has the force of an explanation only in so far as we take the turning of finite particulars towards the divine as a fundamental good. This fundamental good explains God's forming and acting upon his creative intention, and so explains the existence of contingent beings.

Theism's beautiful explanation ultimately consists in this: It is because contingent existence—with its inherent turn towards the divine—is good that God wills it. God's will, as Plato had Socrates argue convincingly in the *Euthyphro*, 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 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. Here again we have the explanation that explains without necessitating. Theism's mistake was to personify this explanation in a creative intention.

There is still another metaphysical problem with Theism, which has to do with the fact that the Theistic explanation of contingent existence appeals ultimately to a necessarily existing *particular* rather than to an all-inclusive necessary *universal*, such as Being itself. 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, i.e. other things of the same sort as it, 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. It is inconsistent with supposing that there is any contingency anywhere. In this sense it entails the very Spinozism which it seeks to avoid.

The argument for that claim is worth stating. Not merely as still another criticism of Theism, but more fundamentally because the argument is a kind of proof that the only thing which can properly play the role of God in accounting for contingent existence is the unique—because all-inclusive—necessary universal, namely Being itself.

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. (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 one does not exclude the full intrinsic description of the other.)

This argument that the uniqueness of God is not consistent with the contingency of the world is not perhaps completely original. Spinoza made the same point long ago in the early sections of the first part of his *Ethics*. More original is the proper interpretation of this neglected argument. Spinoza himself drew the wrong conclusion, namely that since God must be unique, there can be no contingency for him to be related to, so everything is thoroughly necessary. Instead, Spinoza should have concluded that the *arche* or explanatory source of the world is unique for another reason. The *arche* or explanatory source of the world is not able to be duplicated because it is not a necessary particular but a necessary *universal*.

This, after all, is the core of the Categorical distinction between universals and particulars. Particulars are capable of being duplicated, whereas universals are

not. Nothing could be a duplicate of the universal White, anything with just the intrinsic properties of this universal would be this universal. So it is for each universal. For to be a universal is to be potentially found in many particulars. The nature or intrinsic character of a particular is just a conjunction of universals. That conjunction, being itself universal, is able to be instantiated in many particulars. Such particulars with a common universal nature are each duplicates of each other. But while the universal nature in a particular can be in principle found in another particular, the universal nature of a universal just is that universal. This is why a universal is not duplicable while a particular is duplicable.

This observation is crucial for the re-interpretation of Spinoza's argument. What confers uniqueness on the explanatory source of the world is not the absence of contingency but the Categorical status of this source. It is because Being itself is a universal that it does not admit of duplication.

Moreover, Theism has never really come to grips with the ontological status of the Categories. The Categories are fundamental kinds of Being. As such they are necessary universals, and so they are necessary existents. If we suppose that there is also a particular—God—who is a necessary existent we then must face the question of the relationship between the necessary universals and this necessary particular. One familiar Theistic thought is that the Categories are no more than fundamental ideas in the mind of God. But the candidates that are plausibly taken to be the Categories involve aspects of Being—like Particularity and Universality—which seem more fundamental than any particular instance of Being could be. Nowhere is this more obvious than with Being itself. If the Categories are Kinds of Being then the *Summum Genus* of the Categories will be Being itself. God as a being, will like all other beings, merely exemplify Being. Being cannot then be an idea in the mind of God. God has to be a being, has to exemplify Being, to have a mind at all. Being thus emerges as more fundamental than any particular being could be. If Being is prior to particular beings and God is a particular being then Being is prior to God. We need to understand this structure of Being which is in itself a condition of God's thoughts being thoughts. And we need to understand why it is exemplified.

The upshot is the following. If we are to explain the contingent existence of beings then:

1. The explanation must appeal to a capacity of some entity that has two features: the capacity might not have been realized, and its contingent realization is the existence of contingent things.
2. The entity with this capacity must be intrinsically unique, i.e. incapable of having duplicates.
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.
4. The entity appealed to in the explanation of contingent existence must be intelligibly related to the necessary universals, which are the Categories.
5. The explanation must be a purposive explanation, where the purpose is not mediated by the intention of some pre-existing mind.

There is still a sixth condition for an adequate explanation of contingent existence, which develops from this fifth condition.

The Fundamental and Supreme Good

A purposive explanation that is not mediated by an intention must appeal to some good which is the end for the sake of which the thing being explained occurs, exists or obtains. Now in the case of explaining all of contingent existence, it can be seen that the Good in question must be fundamental and supreme. It must be a fundamental good in the sense of not being good because it is a means or condition of some other good. For if the Good in question were good only as a means or condition for another good then that other good would be the end for the sake of which contingent beings exist. Our explanation would not have terminated at the right point if the Good to which we appeal is not fundamental in this sense. Moreover, the Good in question must be Supreme, in that it cannot be outweighed or counterbalanced by any combination of goods. For if it could be in this way counterbalanced or outweighed by some combination of goods then the question would remain: why do contingent beings exist for the sake of the Good you allege, rather than for the sake of this combination of goods which counterbalances or outweighs it? Unless the Good in question is supreme, our explanation would not have ter-

minated at the right point.

The Supremacy of the Good entails that the Good is unimprovable. 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, this 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?” Our explanation of the existence of contingent beings would not have terminated at the right point.

The supremacy of the Good also entails that the Good cannot be the bundle of all actually realized goods. For that bundle is improvable by the addition of further goods that are not actually realized. So if we were to identify the Good with the bundle of all actually realized goods then we would face this embarrassing question: “Why does this totality of just these contingent existents with these realized goods exist rather than some other, better totality of contingent existents with the same realized goods and more to boot?”

Could it be then that the Good for the sake of which contingent beings exist is just the bundle of all actual goods along with the further goods that the existence of contingent beings makes possible? No, this would not be consistent with the supremacy of the Good. There is no reason to suppose that there is a unique bundle of all possible goods which is best. There may be many inconsistencies and tension among goods, requiring tradeoffs here and there to make a better bundle of goods. Some of these tradeoffs can be made in different ways without one way being better than the other. If that is so then there will be more than one maximally good bundle of actual and possible goods. None of these maximally good bundles will be supreme, for each is balanced by the other. There is no reason why one maximally good bundle rather than another should be *the* bundle for the sake of which contingent beings exist. Thus none of these bundles is the unique explainer of contingent being. None will be the Good for the sake of which contingent being exists.

The supremacy of the Good entails that contingent being does not exist for the sake of the good of any particular contained among contingent beings. It could not be that contingent beings exist for the sake of the spread of democracy, or for the survival of the Earth, or for the pleasure of the gods. Even if such goods were

fundamental they could not be supreme. For these goods are improvable in the sense that a situation in which they are realized along with other goods is better than a situation in which they are realized alone.

We have argued that six conditions must be satisfied if we are to explain contingent existence:

1. The explanation must appeal to a capacity of some entity that has two features: the capacity might not have been realized, and its contingent realization is the existence of contingent things.
2. The entity with this capacity must be intrinsically unique, i.e. incapable of having duplicates.
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.
4. The entity appealed to in the explanation of contingent existence must be intelligibly related to the necessary universals, which are the Categories.
5. The explanation must be a purposive explanation, where the purpose is not mediated by the intention of some pre-existing mind.
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.

If we could satisfy these six conditions we would then have an explanation of contingent existence, an explanation that did not covertly treat it as necessary.

The required explanation turns on the recognition of a universality that is necessary and yet has a contingent capacity to be instantiated. Its contingent instantiation would have to be none other than the totality of contingent being. We shall argue that this necessary universal is thus none other than Being Itself. As a universal, it is not duplicable. So it is an intrinsically unique explanatory source of contingent being. But just how does positing Being explain the existence of the world? As we have seen, in order to explain without necessitating, the explanation

must be teleological. It must appeal to the fundamental and supreme Good which essentially involves Being. *Being is contingently exemplified or instantiated for the sake of this Good. Equivalently, contingent being exists for the sake of this good. What then is this fundamental and supreme Good for the sake of which Being is exemplified or instantiated?*

The only initially plausible candidates to be the fundamental and supreme Good are:

1. Reality as a whole.
2. Loving affirmation of the real, the adequate response of the will to reality.
3. Comprehensive understanding of the real, the adequate response of the intellect to reality.

By reality as a whole we mean Being itself and all individual beings thought of as instantiating or exemplifying Being. As applied to this account of the real, the three candidates to be the Good generate six alternative accounts of the Good, for the sake of which the world exists.

According to the first, the Good is just Being itself (or perhaps some necessary aspect of it). According to the second, the Good is the contingent instantiation of Being itself, equivalently the existence of contingent being. According to the third, the Good is the loving affirmation of Being, which requires the existence of contingent being and the development of mind in order that it should obtain. According to the fourth, the Good is the loving affirmation of contingent being, which requires the existence of contingent being and the development of mind in order that it should obtain. According to the fifth, the Good is the understanding of Being, which requires the existence of contingent being and the development of mind in order that it should obtain. According to the sixth, the Good is the understanding of contingent being, which requires the existence of contingent being and the development of mind in order that it should obtain.

The first view—that the Good is Being itself—can be rejected immediately.

For recall the central idea of explaining the existence of contingent being. If there is to be an explanation of the existence of contingent being then that explanation must leave contingent being contingent. It should explain contingent being without necessitating it. The explanation must therefore be a purposive explanation, for purposes explain things without guaranteeing that those things occur. (Recall that “The spider built the web in order to catch and eat the fly” does not entail that the spider had to build the web. Nonetheless it makes the web-building intelligible.) But a purposive explanation must appeal to some good secured by the thing to be explained—in this case the existence of contingent beings. But then the good in question cannot be a good that would obtain whether or not contingent beings exist. If Being is the Good then since Being is a necessary universal that exists whether or not the contingent being exists and exemplifies it, the existence of contingent being is not explained by this alleged Good. This is contradictory, for what makes a good *the* Good is that contingent being exists for its sake. That is our defining grip on the Good, and so what allows us to go on to ask whether this or that is the Good.

Obviously, the same argument would obviously disqualify any claim to the effect that some necessary aspect of Being Itself—such as its form—is the Good. That form would exist anyway, whether or not contingent being exists. So it cannot be that for the sake of which contingent being exists.

The second view counts the exemplification of Being, which is to say, the very existence of contingent being, as the Good. On this view it is not just that God considered his creation and “saw that it was good.” Rather, the view implies that contingent being exists just because its existence is the Good. But doesn’t this entail the absurd, Panglossian view that everything in the world is just as it should be, so that a better totality of contingent beings could not exist? The world—the totality of contingent beings—is obviously improvable in many ways. Some good things could be added to the world and some bad things could be taken away, in either case without compensating losses. Hence the existence of contingent being cannot be the Good, for the Good is supreme and so unimprovable.

Furthermore, if a good is to be supreme then it cannot be embedded in a different good that contains it as a constitutive part. For the realization of the more inclusive good will be better than, because inclusive of, the good which it embeds. This is relevant because the existence of contingent being seems to be a possible

object of understanding. Now understanding is the presence of the object of understanding to a mind adequate to grasp what it is to be that object. Understanding in this sense is, at very least, *a* good, and it presupposes the existence of what is understood. So if the existence of contingent being is itself good then understanding contingent being is a further good, which embeds this good of existence. But then it follows that the existence of contingent being cannot be the supreme Good.

What then of loving affirmation of Being and loving affirmation of contingent beings? Could either of these be the Good? The fact that the Good is supreme and hence not embeddable in any larger good rules out identifying loving affirmation of Being as the Good. For if loving affirmation of Being were a good then presumably loving affirmation of the exemplification of Being in contingent beings would also be a good. But then, loving affirmation of the exemplification of Being in contingent beings would necessarily involve loving affirmation of Being. So loving affirmation of Being is not the Good because if it were a good there would be another good—loving affirmation of the exemplification of Being by contingent beings—which embeds it.

Does this mean that the Good is loving affirmation of the totality of contingent being, i.e. loving affirmation of the world? No; for there is much in the world which is simply bad and which it would be bad to lovingly affirm. Nor is the medieval rationalization that everything which is bad in the world is none of it positive being, but only a “privation”—an absence of what ought to be there—at all tenable. Arthur Schopenhauer once wrote “The world has learnt a thing or two from me which it will not soon forget.” Yet one of his most forceful and irrefutable insights often bears repeating, namely that there are aspects of the natural world which are positively horrific and which it would be deluded to love. Schopenhauer asks us to attend to the vast system of animal predation, which is at the core of mammalian life on Earth. The hungry lions run down and maim the zebra and then begin to devour it while it still lives. Their pleasure in the hunt and the satisfying of their hunger is objectively far less considerable than the terror and agony of the zebra. So it goes with predator and prey. Predation is a system whose characteristic transactions produce a hefty bonus of animal pain over animal pleasure. Nor is the terror and pain of being eaten alive a mere privation, a mere absence of calm and bodily integrity. The terror and pain have their own awful qualitative character. The sentimentality which supposes that whatever is natural is therefore good is a blind sentimentality. There is much in nature that is simply bad, and which it would be perverted to lovingly affirm. So loving affirmation of the totality of contingent

being would be partly good and partly bad. As such, it could not be the Good.

While it is bad to love the bad, it is not likewise bad to understand it. So understanding contingent being, even though the totality of contingent being is partly good and partly bad, is not thereby disqualified as the Good. But then there really are four possible objects of understanding that we should consider, when we inquire after the Good for the sake of which contingent being exists.

1. Contingent being

2. The exemplification of Being Itself by contingent beings

3. Being itself

4. The form of Being Itself, i.e. that aspect of Being Itself which is grasped by the intellect when Being Itself is understood.

The understanding of which of these is the Good?

Again, the choice is forced by the thesis that the Good, because Supreme, is not embeddable in a more comprehensive good. Other things being equal, understanding more is better than understanding less. So applying this principle of comprehensiveness it may seem that the second object of understanding embeds the other three and omits no possible object of understanding. The Good would then be the understanding of the exemplification of Being by contingent being.

However, this simple application of our principle of comprehensiveness is mistaken. It is not in general true that objects of understanding add together in simple ways. To understand the U.S. economy is in part to understand the role of the price of oil in contributing to prices quite generally. Because of this, someone who thought that understanding the price of oil in relation to the U.S. economy was a more comprehensive form of understanding than merely understanding the U.S. economy would be wrong. The same sort of mistake is made by someone who thinks that understanding the exemplification of Being Itself by contingent beings is a more comprehensive form of understanding than the “mere” understanding of Being Itself. For to understand Being Itself is to understand why it has issued in

contingent being. Nothing that left that unexplained would count as a complete understanding of Being Itself, just as nothing which omitted the issue of the price of oil and its systematic effect on other prices would count as a complete understanding of the U.S. economy. Thus, despite the surface form of the description of the objects of understanding set out above, the understanding of Being Itself a more comprehensive object of understanding than the instantiation of Being Itself by contingent beings. For a comprehensive understanding of Being Itself would include an understanding of why it is instantiated in contingent being. And all that could count as a comprehensive understanding of contingent being, as opposed to instrumental scientific knowledge of how to manipulate it, is an understanding why it exists.

Now an observation of the very same kind can be made about the form of Being Itself, i.e. that aspect of Being Itself which is grasped by the intellect when Being itself is understood. Nothing could count as an understanding of the form of Being Itself without it involving an understanding of the relation between that form and any other aspect of Being Itself. Thus the understanding of the form of Being Itself is not a less comprehensive object of understanding than Being Itself.

So the Supreme, Final and Most Comprehensive of goods—the Good, if you like—is the comprehensive understanding of (the form of) Being Itself.

Contingent beings thus exist for the sake of the arising of such a comprehensive understanding of the form of Being Itself. The central theme of the whole drama of reality is the disclosure of the form of Being Itself.

With the broad shape of this explanation of the existence of contingent beings in place, let us now explore what its precise details come to: Contingent being exists for the sake of the coming to understanding of the form of Being Itself by contingent being. If this is true then there are accordingly two urgent tasks to undertake. The first is to explicate what understanding the form of Being Itself involves, so that we can then understand contingent being as the exemplification of Being Itself. The second is to explain how understanding the form of Being Itself and hence contingent beings as exemplifying Being Itself is not only fundamental and supreme, but also “sovereign”, i.e., how it is a good by virtue of which all other goods (i) derive their authority as objects of pursuit and admiration (ii) stand in a hierarchy of higher and lower with respect to each other. (The sovereignty of the

Good is thus akin to Plato's idea that the Good is an ideal to which ordinary goods approximate to varying degrees.) Only then could there be any question of an articulation of an objective ethic, based around the idea that badness in intention and action is the subordination of a higher good to a lower good. Only the first task is addressed in this work.

That the Good is the comprehensive understanding of the form of Being Itself is not a completely unheard of idea in philosophy or religion. It has obvious affinities with Hegel's claim that the point of existence is the self-understanding of the Absolute Spirit embodied in the world. It also resonates with the divinization of *sophia* in the wisdom literature of the Hebrew Bible, and with the announcement in the prologue of the Gospel of John to the effect that Logos or intelligible form is the transcendent source of the world.

We now turn to an examination of what it would be to have a comprehensive understanding of the form of Being Itself.

Being as the *Summum Genus*

The key to a comprehensive understanding of the form of Being itself is the correct Theory of Categories, for the Categories are none other than Kinds of Being.

That is to say, the explication of the nature of Being is a Theory of Categories, not entirely unrelated to the traditional theories provided by Aristotle, Porphyry, Kant and Hegel. The Categories described by each of these philosophers were universals whose existence and interrelations were necessary and so accessible to philosophical reflection rather than to empirical discovery.

This claim, as applied to Aristotle's seminal work *The Categories*, has been long a matter of controversy among the commentators, some of whom dispute that Aristotle's conception of Categories was primarily metaphysical. Because we are interested in just such a metaphysical conception, it may be worth briefly reviewing the positions that have been taken on the nature of Aristotle's concern with the Categories.

After Andronicus' edition of Aristotle's work in the first century B.C. there

developed a tradition of philosophical commentary on the *Categories* which stretched from Alexander of Aphrodisias, Eudorus of Alexandria, Albinus, Lucius and Athenodoros, on to Olympiodorus, Plotinus and Porphyry. A central item of disputation in this tradition concerns Aristotle's exact purpose in *The Categories*, in particular whether the classification he offers is primarily grammatical or metaphysical or conceptual. On the grammatical interpretation, *The Categories* is concerned with the basic classification of significant words, items which are applied to or 'said of' substances understood as the subjects of all meaningful sentences. On this interpretation, *The Categories* represents merely the first crude steps toward what has become empirical linguistics, and more specifically syntax, the study of the grammatical structure of this or that language. This sort of categorizing can only have philosophical significance on the shaky assumption that some language in ordinary use could be a privileged guide to the structure of the real.

Let us move then to the ontological interpretation of Aristotle's *Categories*. On this interpretation, Aristotle's classification concerns the different Kinds of elements of Being, or equivalently, the fundamental components of Necessary Universality, not simply as reflected in the recurrent patterns of what we say, but as *educed* or drawn out by intellectual insight and reflection.

One of Aristotle's commentators, Olympiodorus, splits the difference between the ontological and grammatical interpretations, maintaining that the *Categories* are concepts. Olympiodorus writes

Of things that are, some only refer to others, some are only referred to by others, and some others both refer and are referred to. For instance, vocal signs only refer, existing things are only referred to, but the concepts both refer and are referred to. For the concepts are referred to by vocal signs and themselves refer to existing things. Therefore they are placed between words and things. Now other commentators say that Aristotle deals with words, and still others with things. But between them are the concepts. Thus the purpose of the *Categories* is to deal with concepts. *Commentarium in Aristotelum Grecia*, Vol 12, 1, A. Busse ed. p 19.

This Conceptualist interpretation of Aristotle simply compounds the problems of the grammatical interpretation. For there are two choices in understanding *Categories* as concepts, associated with two different models of grasping a concept. On one model, grasping a concept is possessing a structured psychological ability,

the ability to meaningfully use a word or conventional sign in accord with its conventional meaning. So just as an empirical linguistics replaces any archaic classification of words which earlier thinkers might have articulated, an empirical *psycholinguistics* replaces any speculative account of the structure of those psychological abilities which issue in the meaningful use of words. The other model of grasping a concept is explicitly Platonic: a concept is a universal, to grasp a universal is to have an intellectual insight into its nature, which insight guides one in seeing significant similarities and differences among particulars and so guides the true classification of particular things. But this model leads us back to the ontological interpretation of the Categories; Aristotle's Categories are Universals of a certain sort, namely Kinds of elements of being, the fundamental components of the real. We are left with a very good question, which so vexed commentators like Plotinus: How can Aristotle remain silent about the relation between his account of the fundamental kinds of realities and the account of his master Plato?

We take Aristotle's theory of Categories to be a theory of the fundamental kinds of Being. His theory of the fundamental Kinds of being is organized around the central Category of Substance, where a substance is a bearer of properties not itself borne, or as Aristotle puts it, something of which things are said or predicated, but which is not itself said or predicated of anything else. The organization of Aristotle's Categories is thus in terms of their relation to the basic Category of Substance. (Though some things that appear in Aristotle's text suggest that Substance is higher than the Categories, so that to be a category is to be a certain kind of "accusation" made of a substance. But this need not detain us here.) So, as well as the *Substance*, we have the *Qualities* and *Quantities* which are predicated of substances, the substances' *States*, the *Relations* which hold of the substances, the substances' location or *Place*, their *Posture* or spatial orientation in that place, their duration or *Temporal Aspect*, their *Actions* or things which the substances do or bring about, their *Passions* or things which they undergo.

Clearly the other nine of Aristotle's ten Categories concern ways substances can be. Here is a Theory of Categories which starts with a class of distinguished particulars—the substances—and works out from there. It explores the kinds of being there necessarily have to be if there are such distinguished particulars.

Despite its grandeur, *The Categories* may be faulted for a lack of absolute generality. Granted, if Substance is to be then the various aspects and modifications of Substance have also to be. But a more inclusive question is: what follows if

Being is to be. This question naturally leads into the study of Necessary Universality as such.

Moreover, even given the unifying theme of substance, *The Categories* still exhibits a curious list-like quality. Nothing significant is said about inter-relations among the Categories, and whether these inter-relations would themselves count as Categories. (As we shall argue, they must.) Nor are we told how the Categories stand to the later hylomorphic analysis of substances, and to efficient and final causes. Nor, as Plotinus emphasized in the *Enneads*, are we given any indication of how Aristotle's substance-based list of Categories is supposed to relate to the structure of forms that Plato described.

Although Aristotle allows that substances fall under *genera* or kinds, nothing is said in *The Categories* about the relations among these kinds. This is an omission of some significance, for those relations would have also to be Categorical, i.e. Necessary and Universal. It is this lacuna which Porphyry partly addresses by way of his tree of definition. Porphyry's distinctive contribution is not so much his own list of Categories but the idea of a tree of Categories whose highest node is the most abstract or general of Categories—the *Summum Genus*—and whose immediate Sub-categories —sub-species of the *Summum Genus*—are distinguished by their differentia or special features. This downward structure of species, each defined by (i) the genus under which they fall and (ii) what differentiates them from other species of the same genus, reiterates at every node thus generating Porphyry's Tree. The relation between a species and a genus emerges as itself Categorical. This small advance opens up a whole arena of inquiry. How are we to think of the structure of the Categories if the relations among the Categories are themselves (polyadic) Necessary Universals, and hence Categories? Whereas Aristotle's concern with Categories was arguably a concern with Kinds of Being, illuminated by close attention to the structure of what we say, Porphyry's explicit focus is on the nature of real definition, useful, as he emphasizes, for rhetoric and logic. Kant radicalizes this formal approach to Categories by treating them as none other than the logical forms of judgement, which he extracted somewhat haphazardly from the logic textbooks of his day. Kant's approach is guided by his central question: How can such Categories as Cause, Substance, Possibility and Necessity—concepts which according to him are not given in experience—apply to empirically given objects? He is struck by the idea that these concepts apply to objects even though they could not be acquired by experience-based generalizations. Hence Kant's aim is to account for the a priori or non-experiential basis of his Categories and at the

same time explain how such a priori concepts could apply to the objects we experience. His infamous solution is that the objects we experience are “phenomenal”, the products of a kind of mental activity of binding together or *synthesizing* sensory impressions, a synthesis guided by the Categories themselves.

Hegel rightly finds this an all-too-subjective account of the Categories. As he says in the *Encyclopedia of Philosophical Sciences*

But after all, objectivity of thought in Kant’s sense is again, to a certain extent, subjective. Thoughts, according to Kant, although universal and necessary Categories, are *only our* thoughts—separated by an impassable gulf from the thing, as it exists apart from our knowledge. But the true objectivity of thinking means that the thoughts, far from being merely ours, must at the same time be the real essences of things. *Encyclopedia of the Philosophical Sciences*, Section 412.

Hegel reinstates the old idea that the Categories must correspond to the basic elements in the necessary and universal structure of an independent reality, and not merely be facets of our most general style of thinking. Surely he is right in this respect: how could the structure of Being itself be subordinate to the structure of our thoughts. Those thoughts as mere existents or beings must themselves exemplify the pre-existing structure of Being. And in order to be ‘objective’ or true the contents of our thoughts must conform to this pre-existing structure.

In the same anti-subjectivist vein, Hegel treats synthesis not as a mental process but as a quasi-logical relation among the Categories themselves. In this way, Hegel introduces for the first time a dynamic, generative structure among the Categories, the so-called Dialectic, which he also takes to be the hidden key to the development of nature, consciousness and history. The Dialectic is a story of stages in the overcoming of objective incompleteness, an incompleteness found even at the level of necessary universality. As Hegel puts it in an earlier work:

Each being is, because posited, thereby op-posed and so is both conditioned and conditioning. The Understanding completes these limitations by positing the opposite limitations as their necessary accompaniment. These require the same completion, so that the Understanding’s task develops into an infinite one...as it completes a relative identity through its opposite and produces again, through the synthesis of the two, a new identity, which again is in its

way incomplete. *Differenz des Fichteschen und Schellingschen Systems der Philosophie*.

Thus Hegel's idea of the dialectical structure of the Categories is built around two claims (i) that to be a definite thing is to be demarcated or delimited by one's opposite, and (ii) that these opposites make up a Genus, which will in its turn be delimited by its opposite, and so on ad infinitum. To see this dialectical process at work, begin with a Category, call it the Thesis. Standing as the delimiting opposite of the Thesis, as its *negation* as it were, is the Antithesis. Taken together the Thesis and the Antithesis comprise the Synthesis, in some respects like a Porphyrian Genus made of two Sub-categories.

The odd thing is that Hegel deploys no real analog of Porphyry's differentia. Hegel gives no account of how a Thesis is delimited within the Genus by anything other than its Antithesis. As we shall see, this omission leads to a radical indeterminacy in the Hegelian system of Categories. The vertical structure of the Categories is clearly determined as a downward tree beginning with the Summum Genus at the topmost node, with each node of the tree (i) occupied by some Genus and (ii) branching into nodes occupied by two Sub-categories corresponding to a Thesis and an Antithesis respectively. But we are given no idea of how the Hegelian Categories are related "horizontally" i.e. when they are at the same level of generality while not being themselves Thesis and Antithesis of the same Genus. The branches at a given horizontal level in the tree are not themselves in any interesting Categorical relation. By omitting the notion of the differentia, crucial connective tissue is lost in the resultant Theory of Categories. We intend to restore just such connective tissue, under the heading of the Unifying Relations.

For Hegel, so long as we are short of the *Summum Genus*—Being Itself—any Genus or Synthesis in its turn functions as a Thesis, which finds its own Antithesis, and then comprises a new Thesis, with its own opposing pair or Antithesis. Here, by iterating the Thesis/Antithesis structure, Hegel is offering an account of the shape of Categoricity or Necessary Universality. But what Hegel does not do is present an overall picture of the resultant structure. Once the "infinite" task of the understanding is complete, what exactly would the structure it contemplates be like?

Since Hegel, Category Theory has been left fallow and undeveloped. We aim here to capture and elaborate its original impulse. Indeed, we shall present a

fully explicit elaboration of the structure of necessary universality. In contrast to Aristotle, who teased his Categories out of the notion of substance, we aim to show that the real Categories, which we take to be the most fundamental Kinds of Being—are none other than the Categorical sub-divisions of Being itself, given according to a certain systematic method. We now begin on task of setting out the Categorical sub-division of Being. Perhaps in this task mistakes will be made, but at least it is the right task. (That one's errors may be the pre-condition of a breakthrough—this is the best hope.)

The Structure of Being

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

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.

So, as already noted, at the heart of reality there lies this distinction, the distinction between particulars on the one hand and universals on the other. Particulars are located in space and time. Universals are instantiated at various locations in space and time. If we call these two ways of being related to space and time *being at a place* or *a time* then whereas a particular can be at different places at different times, a universal can be at different places at the same time. As some say, universals are repeatable across space, whereas particulars are at most repeatable across time. This is connected with another distinction emphasized earlier. 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. So whereas a particular is in principle duplicable, a universal is not. A universal is what many particulars could have in common. That common aspect can't be copied. So among the things that exist or have being are particulars and the universal they have in common.

But now if everything has Being in common then Being must be a universal. It must therefore exist and have being. So here we have a universal, which is properly predicated of itself. Being exists. Being has being. Without Being—if sense can be made of taking Being Itself away—there could be no mere beings. So Being

has something in common with mere beings. Like them, it also exists. It also is a being. So Being is predicated of itself.

But is it merely contingent that Being is predicated of itself? The universal, Being, applies to itself. Can this be an accident, due to the fact that there are other things, where these other things themselves might not have existed? No, whether a universal applies to itself seems just to lie in the very nature of the universal itself. The universal, Weighing One Gram weighs nothing and so does not apply to itself. 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.

On the other side of the ledger, the universal Being One Thing, which is instantiated by units and not by pluralities, applies to itself. For the universal Being One Thing is not a plurality but a unit. Is this fact of self-predication a grace of fortune conferred on the universal by how 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 holds of itself that it does hold of itself.

Being holds of itself. Which is just to say: Being exists. 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. Being is a *necessary* universal.

This is not to say that mere beings exist necessarily. Mere beings instantiate Being. But although Being exists necessarily, it is not necessarily instantiated by anything else that lies outside its nature. We think naively that there could have been nothing, and Heidegger asks ‘Why is there something rather than nothing?’ But there could not have been nothing, for Being exists of its very nature. However it might have been that *only* Being (and the necessary structure that exhausts it) existed. The world of particulars might have been null or empty, and all those contingent universals, whose existence depends upon their instantiation by particulars, might not have existed. That is the truth that lies behind the confused thought that there might have been nothing. The real question is: Why is Being instantiated by anything other than itself? Why are there mere beings, beings that just happen to exist; beings, which unlike Being, do not exist of their very nature? If you would like a metaphor, why was Being not content to remain in itself? Why is it instanti-

ated in other beings?

What is Being up to? That is the central question of metaphysics. If this question admits of an answer then it would seem that the only way to answer it is to inquire into the very nature of Being and discern there a significant structure that discloses the telos, i.e. the impersonal purpose, of Being.

To inquire into the very nature of Being, what would that be like?

And where should one begin?

But notice that we have already begun. For we have already discerned two kinds of, or aspects of, Being—what we might call Universal Being and Particular Being. These represent the two fundamental ways in which beings can be. A being can be Universal, i.e. repeatable (at a time) and non-duplicable. Or a being can be Particular, i.e. duplicable and non-repeatable (at a time).

Clearly Universal Being applies to itself. Universal Being is an aspect of Being, therefore it is something that exists. Therefore it is a being. (It is not a *mere* being, something that merely happens to be. For it is an aspect of Being, and so exists necessarily.) Yet as an aspect of Being, which is a universal, it also is a universal. So Universal Being is both a being and a universal. It applies to itself.

Not so with Particular Being. It does not apply to itself. Particular Being is an aspect of Being, therefore it is something that exists. Therefore it is a being. (It is not a *mere* being, something that merely happens to be. For it is an aspect of Being, and so exists necessarily.) Yet as an aspect of Being, which is a universal, it also is a universal. So Particular Being is both a being and a universal. It is not particular so it does not apply to itself.

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.

This presents a difficulty, the solution to which provides a deep hint as to the structure of Being. Like Being, this aspect of Being—Universal Being—is univer-

sal. So both Being and Universal Being have the same most general specification of their form. What then distinguishes Being from Universal Being? What distinguishes Being is this: as well as having Universal Being as an aspect, it also has Particular Being as an aspect. Particular Being is an aspect of Being and not an aspect of Universal Being. Since Universal Being is the form of Being, Particular Being can be thought of as the matter of Being, the other aspect of Being which distinguishes it from its form. Particular Being is the matter of Being in the following quite literal sense: it is what distinguishes two universals—Being and Universal Being—with the same most general form.

So Being divides into two aspects: Universal Being and Particular Being. They stand to Being as the most general specification of Being's form and the most general specification of Being's matter, respectively.

We may now summarize our first simple discovery about the structure of Being in this way. Being is one of those necessary universals that is predicated of, or holds of, itself. The form of Being, the most general feature cited in answer to the demarcational question "What is it to be Being?" is Universality. But this form of Being—Universal Being—is also such that it is universal. But then the form of Being holds of two necessary universals. What can make them distinct? Only different 'matter' could individuate or make distinct the universals in question. The matter of Being is Particular Being. And this is not the matter of Universal Being. Though both Being and Universal Being are universal, they have different matter, in virtue of which they are distinct.

What then is the matter of Universal Being? Our simple discovery suggests a strategy. First find the most general form of Universal Being. Then argue that it applies to itself. Then ask of Universal Being and the form of Universal Being, "What distinguishes these two universals?" It will be an aspect of Universal Being which is not an aspect of the form of Universal Being. Thus it will distinguish two universals which can have the same form predicated of them. It will thus in a quite literal sense be the individuating matter of Universal Being.

Let us apply the strategy. We know that Universal Being has two fundamental aspects or Sub-categories: Necessary Universal Being and Contingent Universal Being. For all universals are either necessary or contingent, this being a division which lies in the very nature of the universals in question. Contingent universals exist only if they are instantiated. If there were no plastic things then the

universal that is the *property* being made of plastic would not have been. If there were no contracts then there would be no universal *relation* of contracting. If there were no 16th Century operas then there would be no *kind* of work The 16th Century Opera. Such universals do not exist *ante rem*, i.e. before their instances. This means that they would not exist if they were not instantiated.

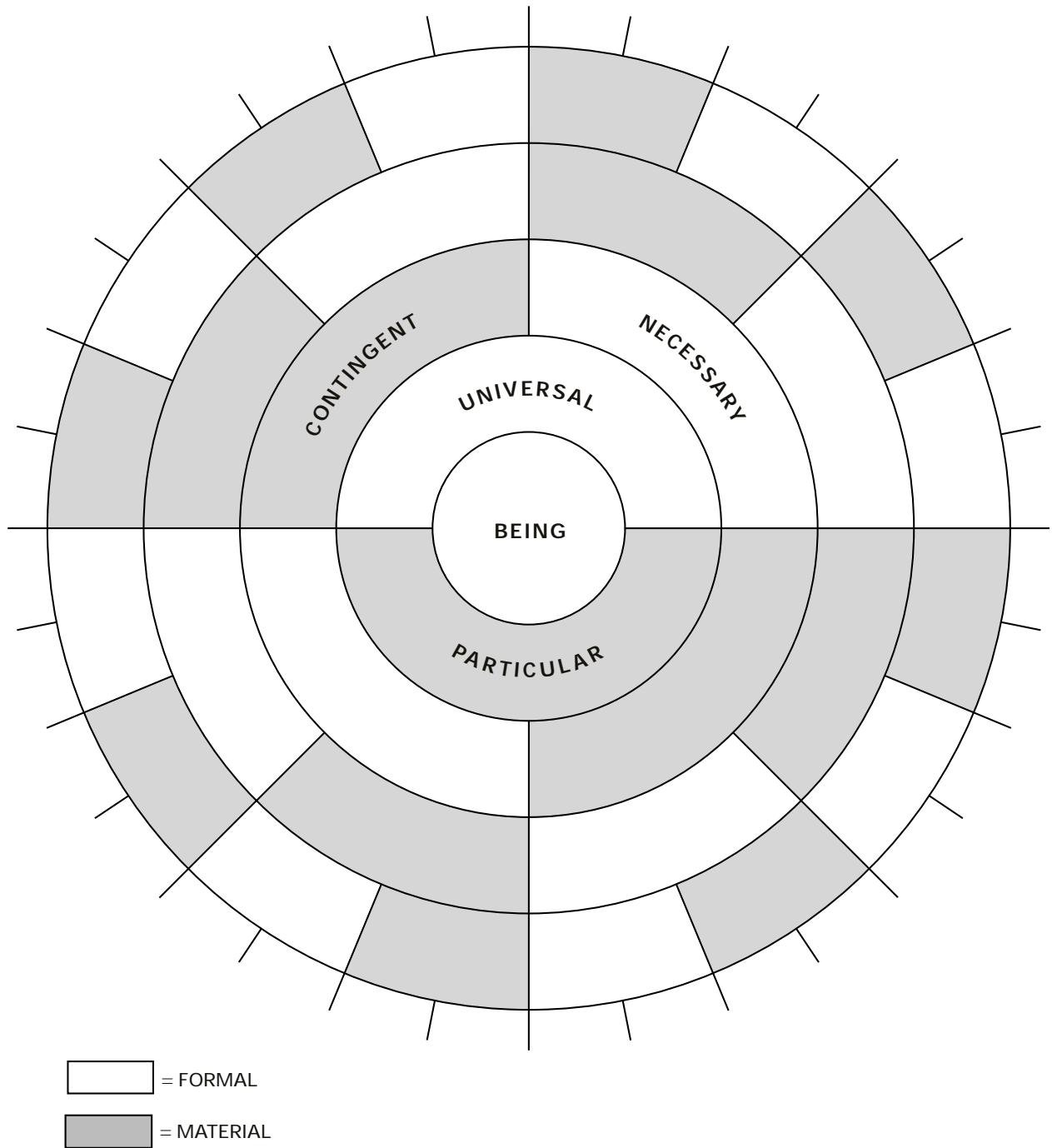
By contrast, Universal Being, like all aspects or sub-Kinds of Being Itself, is necessary and not contingent. So the most general specification of the form of Universal Being is Necessary Universal Being. But Necessary Universal Being is also a necessary universal, since it is an aspect of Universal Being and hence of Being. So the same form can be predicated of Universal Being and its form Necessary Universal Being. What then distinguishes the two? It must be that aspect of Universal Being that functions as its matter, an aspect of Universal Being that is not an aspect of Necessary Universal Being. There is one candidate: Contingent Universal Being. So Universal Being has Necessary Universal Being as its form and Contingent Universal Being as its matter.

The generalization of our basic discovery is this: Necessary universals make up the structure of Being. The form of a necessary universal is not only predicable of that necessary universal. It is self-predicable, i.e. predicable of itself. The form of a necessary universal applies to itself. This in its turn implies that for each necessary universal there must be a principle or aspect of the universal in question that distinguishes the universal from its form. We call this distinguishing or individuating principle the matter of the universal.

So every necessary universal has an aspect that stands to it as its form, along with another aspect that stands to it as its matter. The key to grasping this fact is to see that the form of a necessary universal is predicable of itself!

We can diagram our rudimentary insight into the structure of Being in the following way

DIAGRAM 1



What then is the form of the Category that is Necessary Universal Being? We know these things—first it will be the most general characterization of what it is to be Necessary Universal Being, and second, like all formal aspects of the necessary universals which make up the structure of Being, it will apply to itself and so be properly predicated of itself.

Consider Diagram 1 and imagine it completely filled out in all directions. 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.

Here we have a hint as to the most general nature of Necessary Universality: Necessary Universality is formal, it indicates the form of Being. This then is the most general account of what it is to be Necessary Universal Being—to be Necessary Universal Being is to be form. So the formal aspect of Necessary Universal Being is Formal Necessary Universality.

Clearly the universal Formal Necessary Universal Being is also formal. So we have our familiar structure: two universals satisfy the same very general characterization. They are both formal universals. What then is the material element that distinguishes one universal from the other? Material Necessary Universal Being is the obvious candidate to be the matter of Necessary Universal Being, the aspect of Being which combines with Formal Necessary Universal Being to exhaust the nature of Necessary Universal Being. Here again 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.

We may press the same line of thought further. What is the form of Formal Necessary Universal Being—the most general aspect of the formal aspect of necessary universality? We have already tipped our hand on this. It lies in the nature of the formal aspect of necessary universality to apply to or specify itself. This is the observation at the heart of the principle of self-predication of form that we have been exploiting.

So we can see that the formal aspect of Formal Necessary Universal Being is Self-specifying Formal Necessary Universal Being. But as a formal aspect it applies to itself, leaving us with the question of what plays the role of matter in distinguishing Formal Necessary Universal Being from its form, i.e. Self-specifying

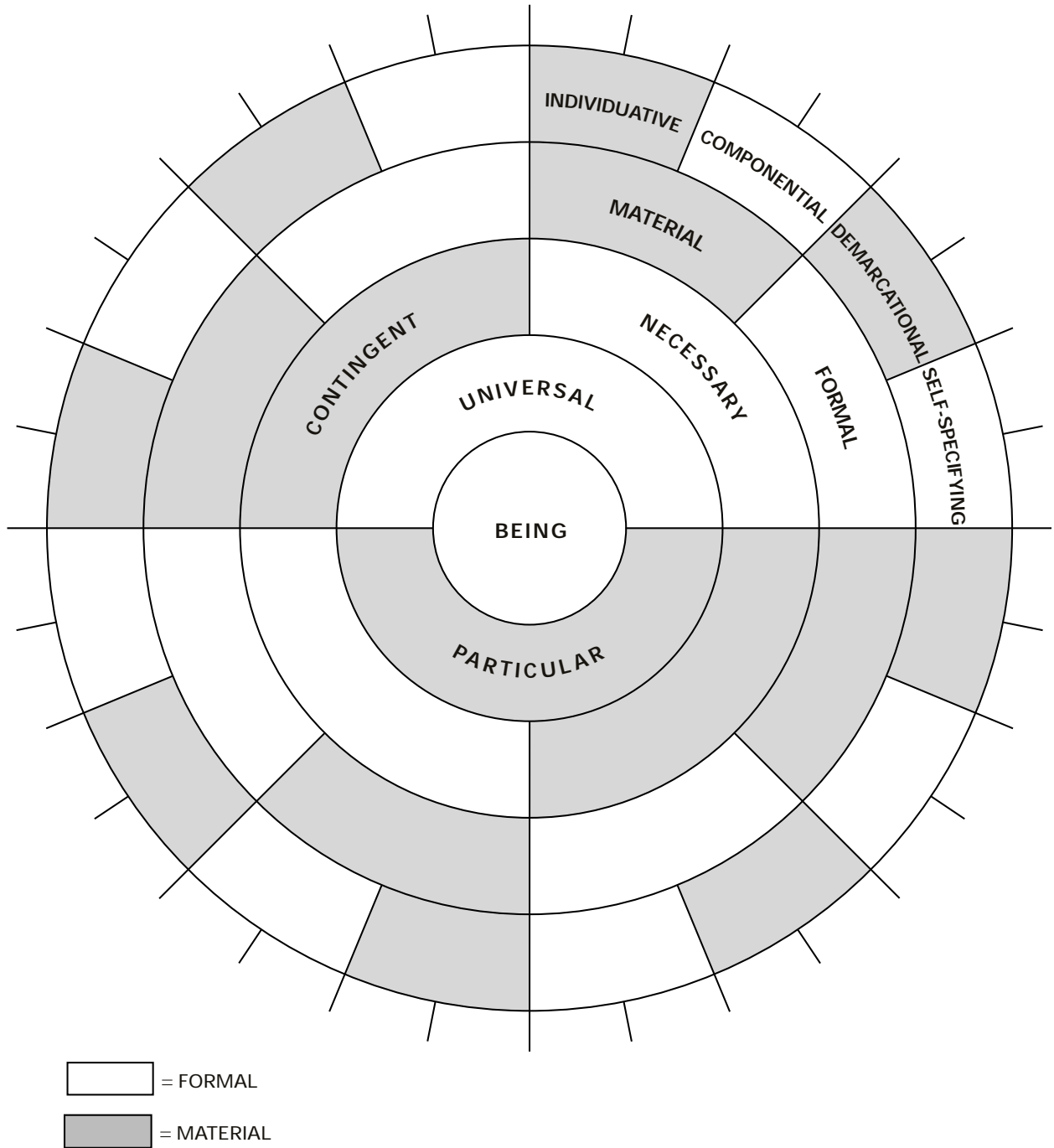
Formal Necessary Universal Being.

This will be another very general aspect of form distinct from the self-specifying aspect. Now form or the what-it-is-to-be of a thing sets off or demarcates one kind of thing from another. This Demarcational aspect of form, its making a thing with form be of one kind as opposed to another is, along with the Self-specifying aspect of form, a fundamental aspect of form. This is what distinguishes Formal Necessary Universal Being from Self-specifying Formal Necessary Universal Being. The first but not the second has Demarcational Formal Necessary Universal Being as an immediate sub-kind.

Corresponding to these two divisions of Formal Necessary Universal Being 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 it makes up. Which of these is the more formal aspect of matter? Recall our requirement that the formal aspect of a Necessary Universal should be such that it applies to itself. So this settles the issue: Componential Material Necessary Universal Being is itself a component.

So we have discerned the following very abstract structure at the heart of Being:

DIAGRAM 2



How then are we to proceed in filling out the Sub-categories of Contingent Universal Being? So far the only hints we have are these:

- 1.They are to stand to each other as matter and form.
- 2.They are to lie at the same level of generality as the Material and Formal aspects of Necessary Universal Being.

Let us then consider for a moment the provenance of the idea of matter and form. The original Aristotelian application of these ideas was to particulars, and had to do with the fundamental aspects of particulars corresponding to the answers to certain basic questions concerning those particulars. Along with these two basic questions:

What is it to be that particular? (form)

What composes or makes up that particular and so individuates it from particulars of the very same kind? (matter)

Aristotle distinguished two other fundamental questions, which point to two more causes or explanatory factors: efficient causation and finality. In order to have a comprehensive understanding of a particular, we must come to know:

What are the various causal transactions in which the particular is involved? (efficient causation)

What purpose accounts for the particular's existence? (final causation)

An even more striking claim can now be made. These modes of understanding not only apply to and exhaust the nature of particulars; *they apply to and are reflected among the Categories themselves*. Before showing that, let us be quite explicit as to how we construe Aristotle's four causes or explanatory factors.

Consider how each of these explanatory factors is apparent in Aristotle's primary case of an artisan who shapes bronze into a statue. The kind of thing which has been made is a statue, something whose conditions of persistence through time require that it remains a statue and hence more or less in the shape of and with the powers characteristic of a statue. In specifying the kind of thing in question what we crucially invoke is a *form*, a unified aggregate of powers, something potential-

ly in common to many things. Such things would be genuinely of a *kind*, alike in an objective way, which our schemes of classification must respect. What individuates the statuesque form common to many statues is the *matter of the statue*, in this case the specific quantity of bronze from which the statue was originally made. That quantity of bronze individuates the form common to many duplicate statues. It is what makes this statue a distinct statue from its duplicates. Some think of the bronze statue as a matter/form or *hylomorphic* compound; bronze in the form of a statue, or equivalently, that statuesque form embodied in that bronze. On this view the compounded particular is made up of *a component form* and *constituting matter*. Yet this conception is actually rejected by Aristotle himself, and on compelling grounds. The form is not another component along with the matter. It is a principle of organization or unity that is embodied in the matter and as a result explains why that matter so organized makes up a further thing distinct from it. For if the form were another component we would be left with the question of what unites the form and the matter into a thing distinct from either and distinct from the mere sum of form and matter.

Aristotle also makes an observation that qualifies his use of the statue as a paradigm example. Artifacts exhibit a derivative or merely analogical sort of form because they have no internal principle which makes certain changes mere alterations, and which would be destroyed when the artifact ceases to exist. Contrast the primary case of living things which have a capacity for various life functions that organize and maintain the constituting matter in such a state as to continue to provide a basis for that very capacity. This is form in the primary sense, an active principle of organization responsible for the unity of a hylomorphic particular.

So far we have elaborated something like Aristotle's account of hylomorphic particulars. Famously, Aristotle adds that hylomorphic particulars stand in two other fundamental explanatory relations, the relation between particulars and their efficient causes, and the relation between particulars and their final ends, purposes or goals on the other. To revert to the example of the bronze statue, we may inquire after what it is in virtue of which this bronze came to have this statuesque form, or equivalently that in virtue of which the hylomorphic compound that is the statue came to be. The answer has reference to the artisan: he is the agent or *efficient cause* of the statue's coming to be.

We may also ask why has the artisan caused the *matter* that is the bronze to take on the *form* of a statue? What was the end or purpose or *final cause* of his

doing this? Perhaps we may suppose it was his desire to provide aesthetic delight. This was the end he had in view, and which guided his forming of the bronze. Indeed, it is the content of the artisan's end which partly explains why what he made counts as a statue whose point or purpose is to give aesthetic delight, rather than a bludgeon or a paperweight, with their very different purposes.

This brief and simplified review of Aristotle's four causes was in the service of an answer to the question of what Categories lie at the same level of generality as the Material and Formal aspects of Necessary Universal Being, and so are the candidates to be the Categories of Contingent Universal Being.

For if it is granted that these questions:

What is it to be that particular? (form)

What makes up that particular and so individuates it from particulars of the very same kind? (matter)

What are the various causal transactions in which the particular is involved? (efficient causation)

What purpose is the particular taken up in? (final causation)

apply to and have real answers in the case of each particular thing then this cannot be an adventitious, contingent feature of things but must rather be part of what it is to be a thing or a being, i.e. it must lie in the nature of Being itself. So we can expect that the aspects which ground the four basic kinds of understanding will appear in the Categorical division of Being itself. The four causal template must fit at some point in the Categorical division of Being.

For these reasons, we locate the Teleological and the Efficient as the sub-Kinds or sub-Categories of Contingent Universal Being. After all, any instances of teleological or efficient relations have to be instances of the necessarily existing Category that is Contingent Universal Being. It is clear that the Category of the Teleological is the Category that stands as form to the Category of Contingent Universal Being. For as we shall see, it is itself a teleological Category, embedded in a purposive relation which the yet to be articulated category of the General bears to the Category of the Necessary. Moreover, it is natural to think of efficient causal relations as constituting teleological connections, as matter does form.

How then do the Categories of the Teleological and the Efficient subdivide? The teleological operation of a particular has to do with that aspect of its function-

ing by which it achieves what it is directed towards. Now in one sense, the actualization of any *disposition* of a particular is a type of directed functioning. For a disposition is conditional power directed at an outcome, which it will produce only when an antecedent condition is satisfied. Thus the disposition to digest food is the conditional power directed at the outcome of digestion when the antecedent condition of swallowing the food is satisfied. Likewise the disposition to see things in the environment when the lighting is adequate is a conditional power directed at the outcome of seeing things. Such dispositions of a hylomorphic particular together constitute a pattern of functioning that is directed at the end characteristic of all the particulars of the same kind. This end sets a norm or standard by which we can say that the thing is healthy or defective of its kind. In this way, the dispositions of a thing constitute and help realize a norm or standard that the thing can also be said to be directed at. So a natural, merely dispositional, directedness comes to be the basis of a norm-governed, teleological activity. We move from a world in which there are merely particulars with directed dispositions to a world in which such particulars are better and worse of their kind, a world in which directedness is governed by norms.

Here then we have two sides to teleological functioning, the one merely Dispositional and the other strictly Normative. These two sides of teleological functioning stand to each other as matter and form, in that the merely Dispositional constitutes the Normative. Accordingly, we should take the sub-division of the Teleological aspect (of the Contingent aspect of the Universal aspect) of Being to be given by the Sub-Categories of the Dispositional and the Normative, with the first being the matter of the Contingent, and the second its form.

How then does the division of the Category of Efficient Contingent Universal Being proceed? The efficient causal operation of a particular has to do with how the particular stands in a pattern of causes and effects. The totality of causes and effects can be conceived in two ways; as a *general* pattern of causal regularities, a set of laws or law-like generalities, or on the other hand as a dense network all of whose nodes are *singular* causal transactions among particulars. The general pattern gives the form of the efficient causal functioning of particulars, while the singular causal transactions taken together exhaust its matter, that which constitutes and realizes the general pattern. So it is a law-like generality that potassium explodes when it contacts water. This law specifies the form of a whole class of singular connections between events of potassium coming into contact with water and events of potassium exploding. The law-like generality tells us that

events of the first sort cause events of the second sort. Just as we can think of the form of a hylomorphic particular as maintaining its matter in a certain viable shape, and its matter as in turn constituting its form, we can think of such law-like generalities as shaping or determining which singular causal transactions take place and also in their turn being constituted by such singular causal transactions.

Here we have a hylomorphic solution to an old problem about law-like generalizations and the particular singular causal connections that make them true. On the one hand the generality—

Pieces of potassium explode when they contact water.

explains the singular causal statement:

That piece of potassium exploded when it contacted water.

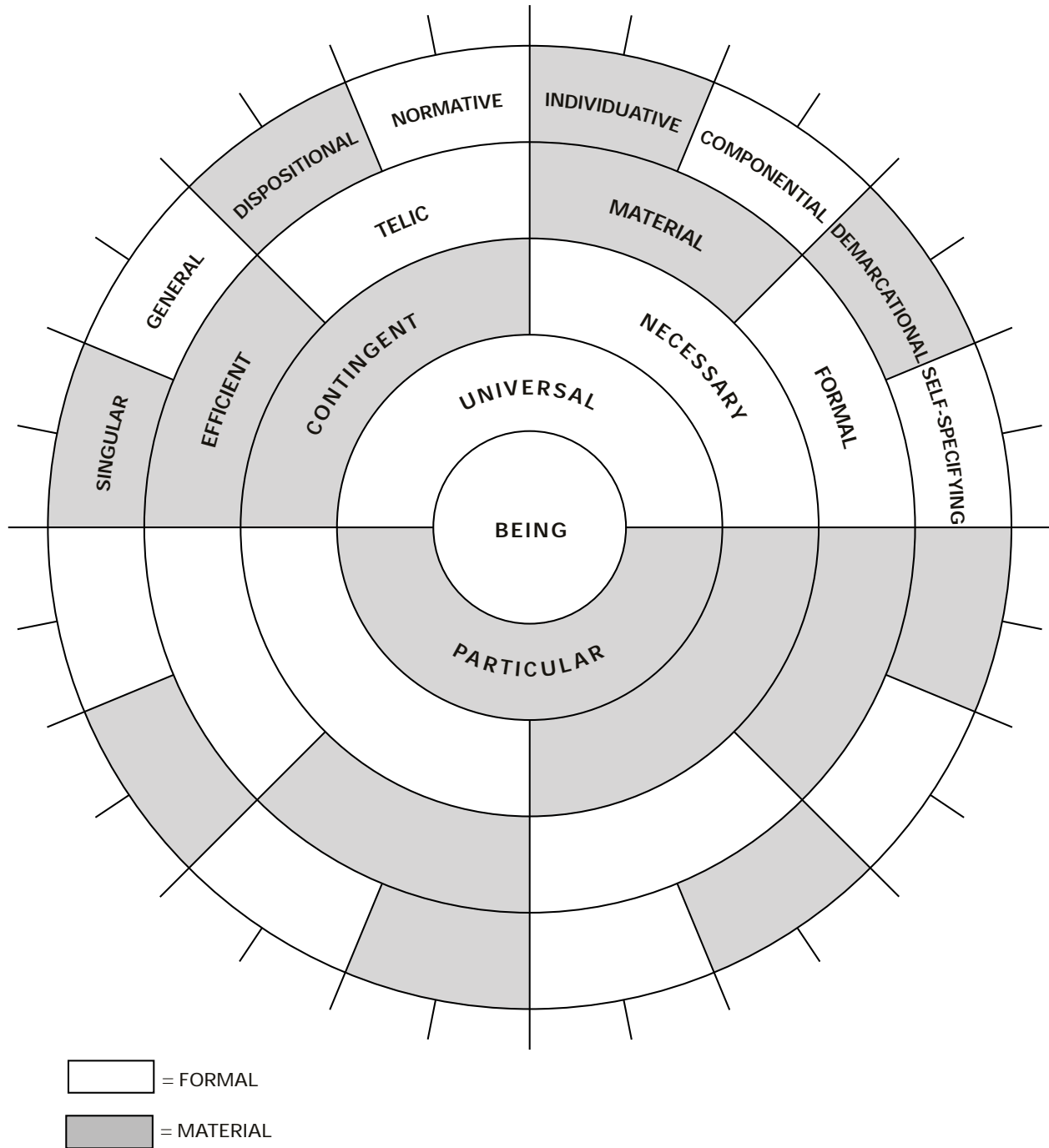
On the other hand the generality seems to be *made true* just by a host of singular causal connections such as the one just cited. So the puzzle is this: We seem to be explaining a singular causal connection in terms of a generality which is no more than a conjunction of singular causal statements including the very one we are explaining. Yet a conjunction $P \& Q \& R \& \dots$ is itself impotent to explain Q . For it simply entails Q in virtue of including it as a conjunct.

Thinking of the law-like generality as form-like and the singular causal connections as matter-like shows us the way out of the puzzle. Form is an active principle of organization that delimits the possibilities for material change. Likewise, a law-like generality is not a mere conjunction of its instances, it too represents a formal constraint on what singular causal transactions *can* take place. It is not a mere agglomeration of singular causal claims, no mere sum of this matter.

Our solution to the puzzle of explanation implies that we should take the subdivision of the Efficient aspect (of the Contingent aspect of the Universal aspect) of Being to be given by the Sub-Categories of the Singular and the General. The second is the formal element of the pair. For the Category of the General is itself general, and so exhibits self-application, the hallmark of form.

Our emerging structure now looks like this.

DIAGRAM 3



Particular Being

In articulating the Sub-categories of Particular Being we are guided by the general picture for which we initially argued. Particular beings exist for the sake of the understanding or comprehension of Being Itself. From this point of view, the totality of particular being is to be thought of as exhibiting a material aspect—the vast spatio-temporal realm of both kinetic and stable phenomena—and a formal aspect based in and developing out of this material aspect—the very coming to understanding or comprehension of Being Itself. Thought of in isolation, the vast spatio-temporal realm of kinetic and stable phenomena is a certain way surd, for it is not comprehensible in terms of a point or purpose. By contrast, the comprehensible aspect of Particular Being is the form of this spatio-temporal realm, namely the way in which that realm is taken up in the process of coming to understanding. This suggests a Categorical division of Particular Being into the Comprehensible and the Spatio-temporal. Clearly by our criterion of taking the formal aspect to be self-specifying, Comprehensible Particular Being is the formal aspect here, for it itself is Comprehensible, in the sense of subsuming a point or purpose which mere Spatio-temporal Particular Being does not.

The same criterion requires that we find in the Categorical division of the Spatio-temporal an aspect which applies to itself and so is the formal Sub-category of Spatio-temporal Particular Being. We have already suggested that the Spatio-temporal divides into the Stable and the Kinetic, understood respectively as Categories subsuming relatively persistent spatio-temporal items as opposed to more or less instantaneous changes. The Stable is thus the obvious candidate to be the formal aspect of the Spatio-temporal. For it applies to itself since it is an unchanging universal and so a paradigm of stability. (Notice that we do not require as part of the doctrine of the self-predication of Stable of the Category Stable Spatio-temporal Particular Being that the other attributes of the Category also apply to the Category. This would be absurd. In the present case that would amount the requirement that the Category Stable Spatio-temporal Particular Being be Particular and not universal. In general it would amount to the absurd claim that the form of a Category that was itself a material Category would satisfy this material condition.)

Can we carry this systematic Categorical Division still further? Concentrate for the moment on the Category of Stable Spatio-temporal Particular Being, a Category of particular items that are extended in space and persist through time.

There seem to be two very different ways in which spatio-temporal particulars can be related to time. They can be all there at each time at which they exist, in the sense of having all their parts there at each time, or they can be merely partly there at each time at which they exist, in the sense of having *varying* parts over time. So a true atom or simple might be, all of it, present at each time at which it exists: what-it-is-to-be-the thing in question—its identity—continues through time. Such continuing things are subsumed under the Category of Continuing Stable Spatio-temporal Particular Being. Their identity continues through time, so they are wholly present at each time at which they exist. Notice that this very Category satisfies this condition. For as a Category it is a Necessary Universal and so exists necessarily and at all times. But as a Universal it is wholly present at each time at which it exists. It thus has a continuing identity. So the Category of Continuing Stable Spatio-temporal Particular Being is a formal Sub-category, since it specifies or applies to itself.

What then is its material counterpart? 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. Their identity over time is best thought of sequentially, i.e. as consisting in different things at different moments of time. It is in this way a merely Aggregative rather than a Continuing identity. The stability of a merely aggregative spatio-temporal item comes from its aggregating together the various different conditions that make up the item over time. Clearly Aggregative Stable Spatio-temporal Particular Being is not a formal Sub-category, since it does not specify, or apply to, itself. For as a Category it is a Necessary Universal and so exists necessarily and at all times. But as a Universal it is wholly present at each time at which it exists. It thus has a Continuing and not merely Aggregative identity.

Similar remarks apply to the Categorical division of Kinetic, a Category that subsumes more or less instantaneous changes. Among such changes, there are those that are part of a pattern and those that are random or without any larger significance. This suggests the Categories of the Random and the Patterned as the division of the Kinetic, with the latter being the formal aspect since the Category that is Patterned Kinetic Spatio-temporal Particular Being is itself part of a pattern.

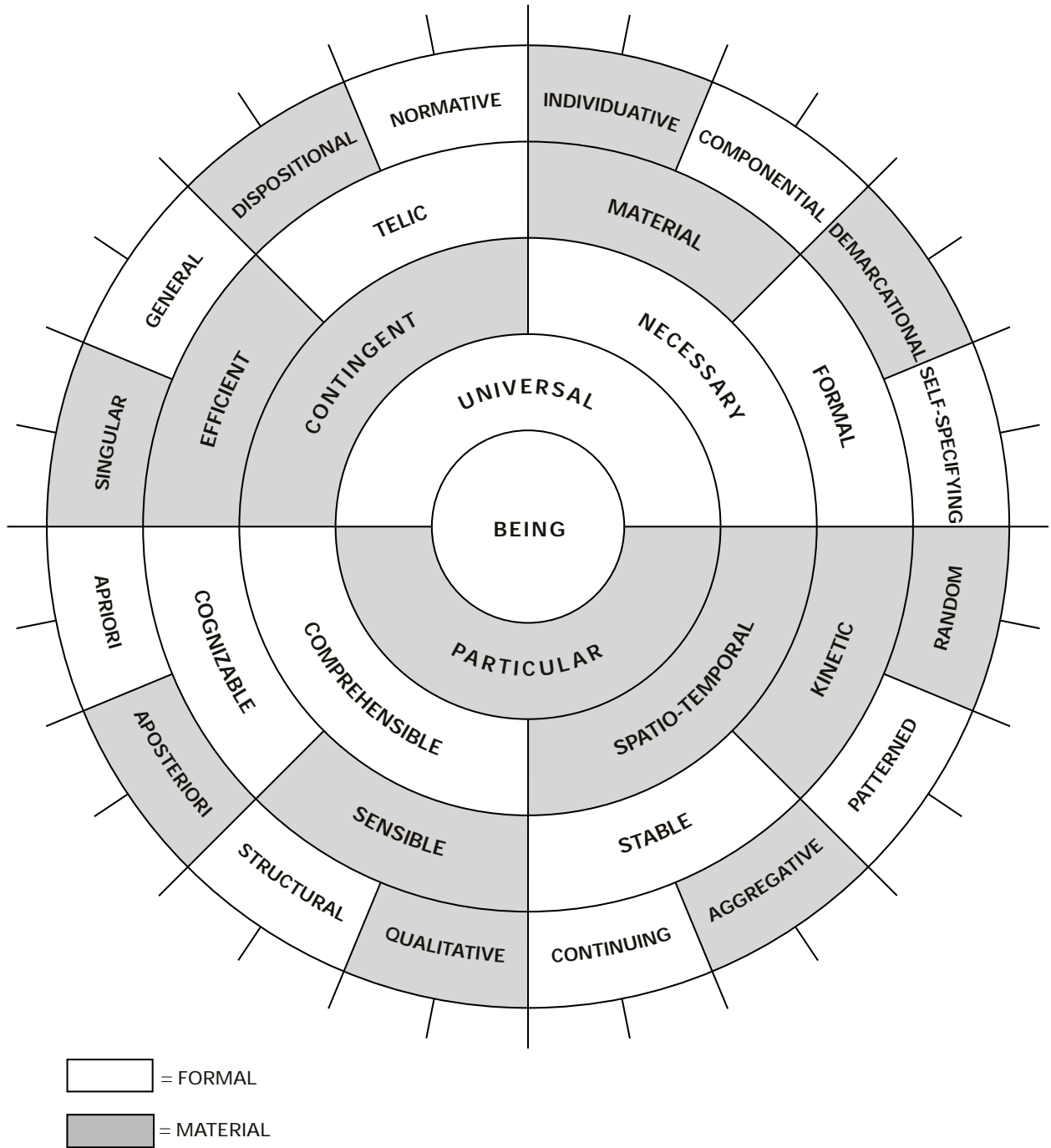
Let us now turn to the formal aspect of Particular Being, the aspect we picked

out as Comprehensible Particular Being. How does its division into Sub-categories go? There are two very general ways in which things can be comprehensible. They can be the sort of things that can be immediately given to the senses—i.e. they can be Sensible—or they can be immediately given to cognition—i.e. they can be Cognizable. Clearly of the two corresponding Categories, it is Cognizable Comprehensible Particular Being that applies to itself. As a Category, it is not given to sense but to cognition.

Notice the particular way in which Categories are given to or grasped by cognition. They are graspable in a way that is logically *prior* to any empirical knowledge of the detailed instantiation of Being in beings. Such empirical or *posterior* knowledge is the province of the particular sciences, while it is metaphysics that explores the realm of prior or, as it is typically styled, *a priori* knowledge. Here then we have a fundamental division in the ways in which things are cognizable—in a prior or *a priori* fashion as opposed to a posterior or *a posteriori* fashion. This suggests that Cognizable Comprehensible Particular Being divides into A Priori Cognizable Comprehensible Particular Being and A Posteriori Cognizable Comprehensible Particular Being. Of these two, it is the latter which is the formal Sub-category, for it is itself graspable *a priori*, as we have just demonstrated by our *a priori* “deduction” of this Category.

This leaves the specification of the formal and material aspects of Sensible Comprehensible Particular Being. When we think of the Sensible—what is given to the senses—in the most general or abstract way it is then very natural to distinguish the qualities given to the sense in question and the arrangement or structure of those qualities which the sense in question also takes in. So when we see a blue square and a red circle the qualities taken in are redness, blueness, circularity and squareness. But there is a certain arrangement or structure also sensed, for otherwise what we see could not be distinguished from a red square and a blue circle—a different structure embedding the same qualities. So the Sensible—what is given to the senses—divides into the Qualitative and the Structural. Both of these Sub-Categories are essentially located in and so pertain to a structure, the structure of the Categories themselves. So the Structural applies to itself and so is the formal element in the pair. Thus we arrive at the following Categorical Structure of Being.

DIAGRAM 4



The Principles Behind the Articulation of the Categorical Structure of Being

It may now help to step back and be explicit about the structuring principles on which we have relied. As well as drawing on specific insights into the material and formal sub-divisions of the Categories, we have so far been relying on three very general principles or “Axioms” to guide us in the articulation of the structure of Being. They are:

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

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.

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

At this point we wish to introduce another Axiom that will serve to further constrain the structure we are developing.

The reader will recall the complaint made about Hegel’s system of Categories, namely that the system simply sets out vertical or “downward-connective” relations among Categories, relations between Categories and their respective sub-Categories. We too have explored such downward relations under the heading of the material and formal aspects of a given Category. These, we argued, exhaust the sub-Categories of a given Category. But in diagramming our Categorical division of Being in the way we do, we imply that there are significant relations among Categories which do not stand to each other as sub-Categories or super-Categories or in the ancestrals of these relations. Recognizing these other “cross-connective” relations makes for a distinctive insight into the structure of Being itself.

We now make a radical suggestion that will take some space to fully explain. We maintained that Aristotle’s four causes correspond to four fundamental modes of understanding that apply to particulars and universals alike. We have seen that the material and formal modes of understanding are not only reflected as Categories in the Categorical division of Being, but are also the crucial vertical structuring relations in that division. We claim that something similar applies to the efficient

and teleological modes of understanding. They are not only properly reflected as Categories in the Categorical division of Being. *They are also the crucial “cross-connective” structuring relations in that division.* To formulate this as an axiom:

Axiom 4. (Axiom of Connective Relations) The connective relations among the Categories are none other than analogs of the four causal relations—being the matter of, being the form of, being the efficient cause of, and being the purpose of.

At this stage the reader may well ask “But what could possibly be the counterpart among universals of efficient causation among particulars, let alone the counterpart among universals of final causation or purpose?” A very legitimate question.

“Causation” Among Necessary Universals.

Notice first off that we cannot say that the counterpart of causation for universals is the relation that holds among universals when their instances stand in the corresponding causal relation. For the counterpart of the relation of efficient causation is to be a structuring relation holding among the necessary universals making up Being itself. Being necessary universals these universals would exist anyway, whether or not they had instances to stand in causal relations. In searching for the counterpart for universals of efficient causation among particulars, we want a relation that would hold among the relevant universals anyway, whether or not there were instances of these universals.

Before we turn to universals, what in fact is the relation of efficient causation among particulars? Some say that one particular event, state or substance is a cause of another when the first is *sufficient for* the second, thereby capitalizing on the idea that the cause creates, brings about or generates the effect. Others emphasize the fact that the effect owes its existence to the cause, insisting therefore that if the cause had not occurred the effect would not have occurred, so that the cause is *necessary for* the effect. Neither the first relation of being sufficient for nor the second relation of being necessary for makes any sense as applied to necessarily existing universals. Since no one such universal could fail to exist, no other such universal is necessary for its existence. Since no such universal could fail to exist, every universal is in a trivial sense sufficient for the existence of every other, since for any

two arbitrarily chosen necessary universals u and u' there would be a true conditional of the form: *Necessarily if u exists then u' exists*. So the relations of being a sufficient condition and the relations of being a necessary condition make no interesting discriminations among pairs of necessary universals and so neither could be the counterpart of causation among such universals.

This is, after all, no real problem since it seems clear upon reflection that neither relation is in fact the relation of causation among particulars. When it comes to necessity, we can see that the relation of being necessary for the effect is not the relation of causation just from the fact that the non-occurrence of every possible preventer of the effect is also necessary for the effect. To say that each such non-occurrence is a cause would be hopelessly to obscure the difference between an actual operating cause, which brought the effect about, and all the merely possibly preventing non-occurrences that did nothing at all. To say that the effect would not have occurred without the cause is to say something very weak, certainly very much weaker than the claim that the cause *brought about*—a rough synonym for “caused”—the effect.

When it comes to sufficiency we can see in the case of parameter-constraining functional laws, such as $PV = RT$, that a change in one parameter causes a change in the other, while the law entails that each change is sufficient for the other. So for example an increase in temperature T might cause and be sufficient for an increase in the pressure P of the gas (under conditions of fixed volume V). But given that $PV = RT$, the increase in pressure under conditions of fixed volume is also sufficient for the increase in temperature. So being a cause of a particular event is not the relation of being sufficient for that event.

These brief remarks suggest that causation among particulars is a basic relation which can only be understood by using equivalent notions: the cause is ontologically prior to the effect in the sense that the cause *brings about* the effect, so that the effect in this way owes its existence to the cause. What is the analog of this ontological priority for universals in general, and more specifically for necessary universals?

Universals do not bring each other about, but they do exhibit relations of ontological dependence and priority. For one universal can be part of what it is to be another universal and so can properly enter into the account of the nature of the second. Take some examples where the defined universal is contingent. To be a

bachelor is to be a male *of marriagable age but unmarried*. To be an angel is to be a creature that *is sempiternal*. To be a man is to be an animal that *is rational*. These definitions exhibit the form of analyzing what it is to be a kind or species in terms of a more inclusive genus and a *differentia*, a feature that marks the species off within the genus.

Now the genus and the species seem interdependent, for just as the species can be defined in the manner above in terms of the genus, the genus can be defined as a disjunction of its constitutive subspecies, as in: To be a creature is to be a man, or a dumb animal or a plant or an angel or... . On the other hand, although the species is defined by way of the differentia, the differentia is not definable in terms of the corresponding species. The differentia is in this sense ontologically prior to the species. *This ontological priority of the differentia to the species is the counterpart of causation for universals. The species is in this way ontologically dependent on its defining differentia. The differentia is in this sense the ground or cause of the species.* 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.

But just which relation among the Categories is the relation of being the differentia of? Return to an example given earlier: To be a man is to be an animal that is rational. This definition displays what it is to be of the kind or species Man in terms of a more inclusive genus, Animal, and a differentia, Rationality, a feature that demarcates the species off within the genus.

Now we argued that the genus Animal and the species Man are interdependent, for just as the species can be defined in the manner above in terms of the genus, the genus can be defined as a disjunction of its constitutive subspecies. On the other hand, although the species is defined by way of the differentia, the differentia is not definable in terms of the corresponding species. The differentia is in this sense ontologically prior to the species. The species is in this way ontologically dependent on its defining differentia.

Clearly the differentia cannot be a sub-species of the Genus. For if it were, then the differentia—say Rationality—would have to be at the same level of specificity as the species which it partly defines, in this case the species Man. Then the relevant genus for Man, namely Animal, would include among its sub-species Rationality and Man, a motley pair indeed. Worse, Rationality, now considered as

a sub-species along with Man, would itself have a definition in terms of the higher genus Animal and some differentia, call it X. But if the genus includes the differentia of each of its sub-species as a further species then the genus *animal* would have to include among its sub-species Man, Rationality, X, the differentia of X, the differentia of the differentia of X and so on ad infinitum. This is a patent absurdity. The sub-species of a genus must all be at the same level of specificity. It is thus clear that a genus does not include the differentia of its sub-species among those sub-species.

We can now state a very general problem which arises for any Category theory which begins with a single dominant Category and proceeds by appeal to differentia to divide it into sub-species and sub-species of sub-species and so on. Walter Stace, discussing Hegel's dialectical method in *The Philosophy of Hegel*, puts the problem this way:

The more general and abstract concept is always prior to the less general and abstract concept. And this principle not only decides for us that the first Category is Being, but also determines the order of the subsequent Categories...Therefore the logic will proceed from the *Summum Genus*, Being, through further and further specifications, to the least abstract category of all, whatever that may be. Our method will be to proceed from the genus to the species and then, treating the new species as a genus, to pass from it to a further and lower species, and so on. But we can only proceed from the genus to the species by adding a differentia to the species....To get from genus to species we have to add differentia. We have therefore to show that the genus contains the differentia. *But the genus is expressly defined as excluding the differentia.*

W.T. Stace *The Philosophy of Hegel* (Dover, 1955) Sections 121-2

Stace's plausible suggestion is that Hegel's logic is structured around a particular "solution" to this problem. Hegel, like Spinoza before him, was impressed by what we would describe as the Demarcational aspect of Form. For Hegel, to define is to demarcate, to mark off a thing from its opposite. But then Hegel proposed that a definable Category must in a certain sense imply the existence of its own opposite, as the source of the demarcation or boundary between the two. His idea was then that this opposite may be extracted and made to do the work of the differentia, thus converting genus into species. This is the deeper idea behind the

claim that Hegel denied the law of non-contradiction; he did not assert contradictory statements, but rather claimed that, as a condition of definition by genus and differentia, Categories and their opposites must in a certain way live parasitically off each other. So beginning with Being, Hegel proposed to define that aspect or sub-species of Being which is Becoming by appeal to the co-present opposite of Being, namely—what else would you expect?—Non-Being. Becoming is thus defined as the sub-species of the genus Being that involves Non-being. This is a very abstract way of saying that in order to become, a thing must exist but also include some potentiality or not-yet-ness, which its becoming can realize or fill up.

Among the many difficulties with Hegel's solution to the problem of locating the differentia, the first is just that it actually negates the very idea of a *Summum Genus* or first Category. By his own account a Categorical explication properly begins with the co-equal, inter-defining pair Being/Non-Being.

There is however a different solution to the problem of locating the differentia. To be sure, the differentia cannot be a sub-division of the genus at the same level as the very species which that differentia defines. It must be more specific than the species and so at a lower level of abstraction than the species. For the differentia defines or generates the species from the genus, which is inevitably more abstract than the species.

Consider how this idea applies to the Categorical division detailed here, The *Summum Genus*—Being—divides into two “sisters”—Universal Being, the formal aspect of Being—and Particular Being, the material aspect of Being. (It would not be unfair to think of this as an application of a hylomorphic version of the Hegelian idea of co-equal Categorical Opposites) Thanks to the Axiom of Dichotomy, which tells us that each Categorical Genus has just two sub-species, one differentia is sufficient to generate this division into sub-species, since once we have one Sub-Category demarcated we know that its opposite is the Category which is the other hylomorphic “component” of the Genus in question.

Now although the Categorical Sub-species of a given Categorical Genus are by definition on the same level of specificity, there is also an important sense in which the material element of the pair is more determinate than the formal element. So it is natural to suppose that this material determinacy is in its own way prior to the more determinable formal element. Accordingly, at any level of Categorical division, *the differentia in question is the differentia of the quasi-material member of the Categorical pair.*

But where does this determinacy of the material member of the Categorical pair come from? Remember that the form of definition is

(Unspecific) Genus + (specific) Differentia = (moderately specific) Species

Accepting that it is the quasi-material member of a Categorical pair which is defined in this fashion, we have

Genus + Differentia = (Material) Species.

So the differentia not only has to add specificity lacking from the Genus, it also has to add the determinacy characteristic of the material element of a Categorical pair. Thus the differentia must itself be a quasi-material Category that is more specific than the Category which it is defining.

There is one remaining piece required to solve the puzzle. We know that the differentia of a Category cannot be a sub-species of the Category. For the sub-species of a given Category stands to it as an analog of matter or form, not as an analog of the relation of being the efficient cause of, which as we argued above is the relation of being the differentia of. *This means that in order to locate the differentia of a material element in a Categorical pair we must look to another material Category which is not only more specific than the elements in the pair, but is not a Category found in their sub-division.* Take for example Universal Being, the “material” element in the Categorical pair which make up Being. The next level of specificity involves the Categories: Contingent, Necessary, Comprehensible and Spatio-temporal. Two of these—the Comprehensible and the Spatio-temporal—are ruled out because they are Sub-Categories of Particular Being. The Necessary is ruled out since it is a formal Sub-Category. The remaining Category—the Contingent—has then to be the differentia of Particular Being. For it is

- a. a “material” Category
- b. at the next level of specificity
- c. not part of the Categorical division of what it differentiates.

And the result that the Contingent is the differentia of Particular Being looks right. 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.

The upshot is that we are now in a position to solve the problem that so distorted Hegel's system. We can give a general specification of just which Category is the differentia of a given Category. Here it is.

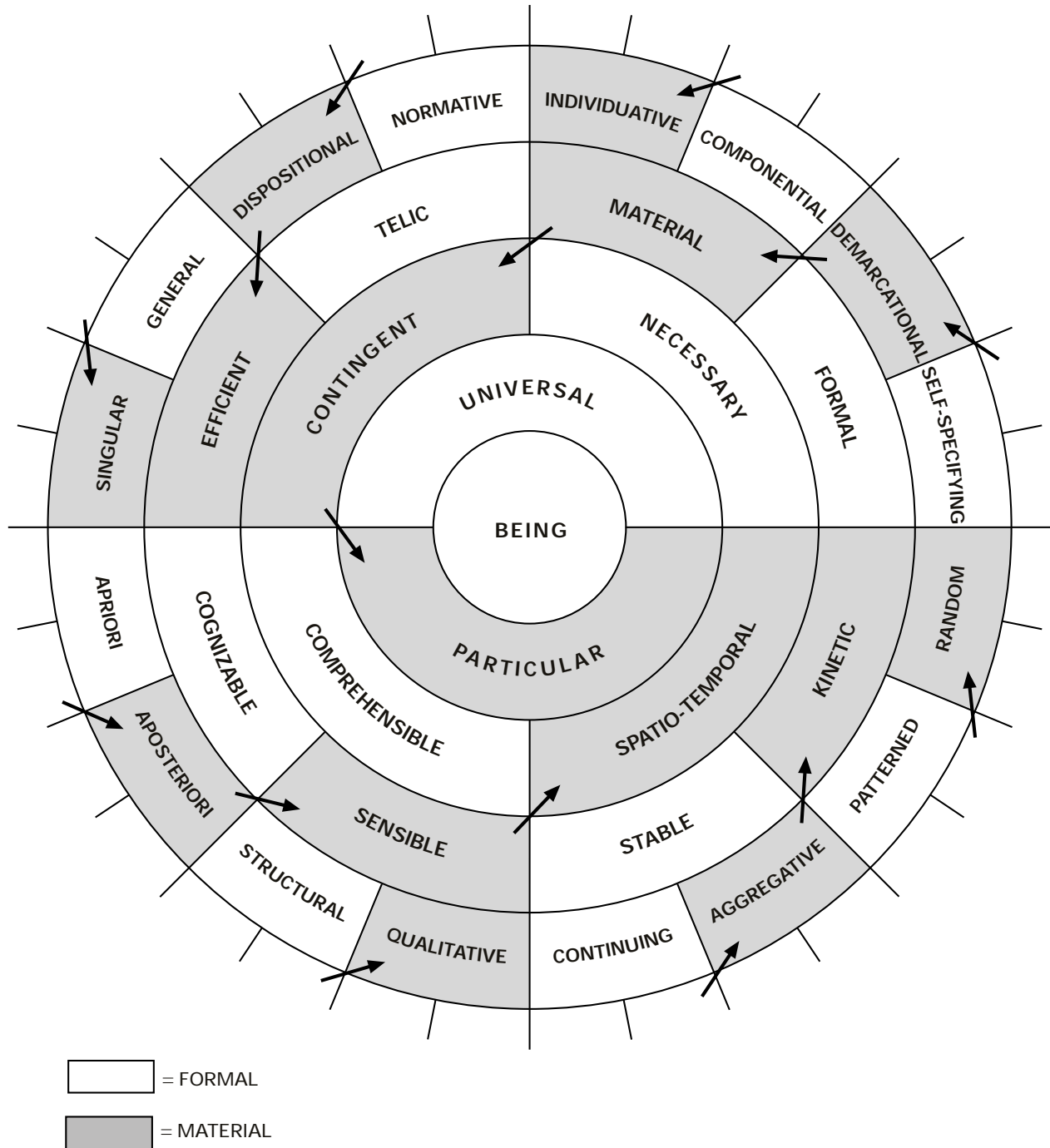
a. Only material Categories have differentia.

b. The differentia of a given material Category is found in this way: Go to the genus above the given Category. Then descend to the sister of the given Category, which together with the given Category exhausts that genus. *The material Sub-category of the sister of the given Category is the differentia of the given Category*

In terms of our diagram, the examples of the relation of being the differentia of—the counterpart for necessary universals of the relation of being the efficient cause of—are marked by arrows.

DIAGRAM 5

→ = IS THE DIFFERENTIA OF



Purpose As A Relation Among Necessary Universals

There remains a final question to be addressed by way of a preliminary motivation for Axiom 4

(Axiom of Connective Relations) The connective relations among the Categories are none other than analogs of the four causal relations—being the matter of, being the form of, being the efficient cause of, and being the purpose of.

What could it possibly mean to say that one universal finds its culminating point or purpose in another?

This is after all not so puzzling, since arguably the *primary* use of statements of purpose is to assert a purposive relation to a universal. Purposes are goals. If talk of goals is too redolent of deliberate or intentional purposes pursued by a mind, then a purpose is an end to which an agent, an activity or a process is directed. Between the directed agent, activity or process and the achieved end falls the shadow of contingency. Failure is possible; purposes may not be achieved. So to ascribe a purpose to something is to relate it to an outcome—the end—that may or may not be achieved. It is confused to think of this end as a possible particular. Someone aims to run a four-minute mile. Suppose he succeeds, then it makes no sense to ask: Was that the particular four-minute mile he was aiming to run? (The runner might not be that picky; any four-minute mile will do for him. But even if he were picky and a particular unstylish four minute mile would not satisfy him, his end would still be universal and not particular; it would be the universal that is the act-kind: his running a *stylish* 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 success. The end is a universal that in all likelihood will never be instantiated. Not only is the end a universal, but in many cases such ends are assigned to whole kinds or universals. So it is with the ends in which we are interested, the ones associated with form, ends which specify the dominant purpose of the things whose form is in question. So Aristotle held that the dominant end of Man is contemplation, where it makes no sense to ask, "Which man?" or "Which act of contemplation?" Here is a typical attribution of purpose where the primary terms of the relation are universals. So it is with the claims concerning purpose that we will make when it comes to the structure of Being.

But just which relation among Categories is the purposive relation of being directed at? We have articulated the Categorical division of Being and illustrated how the Categories in question are connected by counterparts of the relations of being the form of, being the matter of and being the efficient cause of (= being the differentia of). Now, the Axiom of Connecting Relations requires that we also discern the holding among the Categories of the purposive relation of being directed at. This is the crux of the matter. Our extended argument has been that once this is done, we will *find in the structure of the Categories themselves* a vindication of the central claim argued for earlier. The purpose of the instantiation of Being in beings, that for the sake of which all beings exist, is that Being should be understood.

In order to properly locate the purposive relation of being directed at, let us dwell for a moment on the notion of teleological directedness. We argued earlier that the very idea of a disposition, a potentiality to produce an outcome under certain conditions, already incorporated the notion of directedness. The disposition is, at least conditionally, *directed at* the kind of outcome it is a disposition to produce. We also maintained that the formal aspect of the idea of directedness was captured by the idea of a norm or standard of correct functioning. This is the idea that a certain outcome, at which a thing is directed, is right, fitting or proper for the thing to produce. Thus we have the idea of something being directed at an end which sets the standard of right functioning for that thing. So we say that the function of the eye is to see and that the function of the bird's wings is to enable it to fly. An eye that could not see would be defective of its kind, as would wings that did not enable its owner to fly.

The characteristic mode of functioning that allows us to evaluate a thing as defective or successful of its kind derives from its form, the aspect of a thing that *demarcates* the thing or sets it off from other things. As a thing of a specific kind, an eye has the very same end as all other things of that kind. The end or proper function of all eyes is to see. A particular eye gets to have this end because of the form it shares with all other eyes. So our first principle is that *finality derives from form*.

Secondly, when we say that a thing's purpose or end is to X (see), the X-ing (seeing) in question is a universal, which is capable of having many instances. Moreover, this end will be merely determinable, allowing this or that more specific realization in different types of cases. (Think of the enormous range of types of things that one can see.) It is in that sense more form-like than matter-like, although in this case we are talking about an end as an outcome of a certain form rather than

an object of a certain form. So finality—having some outcome as an end or purpose—is not only grounded in form, but the outcome itself should be thought of as a formal universal, something which can be particularized in different material embodiments of the same specific type. Hence our second principle is that *finality is directed at form*.

The third principle for which we shall argue will be this: The merely determinable or form-like universal, to which finality is directed, is always less specific than the form in which finality is grounded. Seeing is the final end of the human eye. The human eye has a certain specific form that developed for the sake of seeing. Now there are detailed aspects of the form of the human eye which make it differ from, say, the eye of a bird or of a bee. So it is said that the human eye is “trichromatic” or organized around three systems of cones, while the eye of the bird is organized around four such systems, and the eye of the bee is hard to classify in this respect. These different kinds of eyes have different forms or organizing structures and yet they all have the same purpose or final end: to (enable the animal in question to) see. Despite specific differences in form, a common end is served. Nor is this an idiosyncratic feature of the eye and seeing. It is a banality that there is more than one way to skin a cat. In the present context this banality amounts to the observation that things with different specific forms can serve the same end. (The converse does not hold, things with the same specific form cannot have different ends, at least when those ends are intrinsic or determined by form, rather than by the external purposes to which things are put.) But if form determines finality, and the same final end can be served by many different forms, then the common end cannot be as specific as the various forms which serve or aim at it. *Thus the end is less specific than, i.e. more general than, the form from which it derives.*

So far then we have established that finality—having some outcome as an end or purpose:

- a. derives from form,
- b. is itself formal in character,
- c. is more general, i.e. less specific than, the form from which it derives.

Turning now to the Categories, this implies that if one Category is to be directed at a second Category as the first Category’s end or purpose then:

- a. the first Category will be a formal Sub-Category of its Super-Category or Genus,

- b. the second Category will also be a formal Sub-Category of its Super-category or Genus,
- c. this second Category or the end at which the first Category is directed will be the more general of the two.

We are now in a position to locate the relation of *being directed at* in the structure of the Categories. We know that the final end of a Category cannot be the Category of which it is a sub-species. For the sub-species of a given Category stands to it as a counterpart of matter or form, and so not as a counterpart of the relation of being directed at that category as its final end. *This means that in order to locate the end of a formal element in a Categorical pair we must look to another formal Category which is not only more determinable or less specific than this formal element, but is also not the Category which has this formal element as its sub-species.* Recall for example that Being divides into the material Sub-Category of Particular Being and the formal Sub-Category of Universal Being. At the next level, we attain more specificity with the Categories: Contingent, Necessary, Spatio-temporal and Comprehensible. Consider now the Category of the Comprehensible, which is the formal Sub-Category of Particular Being. What is the Category of the Comprehensible directed at? We know that it has to be a Category that is less specific than the category of the Comprehensible.

This leaves two candidates: Universal Being and Particular Being. It cannot be Particular Being, for two reasons. First, this is the material Sub-Category of Being, and finality only holds between *formal* Sub-Categories. Secondly, the Comprehensible stands as form to Particular Being and nothing can be both the form of and directed at the same thing. The remaining Category—Universal Being—has then to be the Category that the Comprehensible is directed at. The meaning and significance of this claim will be explored in detail below.

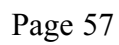
We are now in a position to provide a general specification of just when one Category is directed at another Category as its end. Here it is:

- a. Only formal Categories have ends to which they are directed.
- b. If a given formal Category has an end then it is found in this way: Go to the genus above the given Category. Consider the sister of the genus. Is this sister a formal Category? If so, then this sister of the genus of the

original Category is what this original Category is directed at.

That is to say that *the end of a formal Sub-Category is the formal sister of the genus of that Category*. In terms of our diagram, the examples of the relation of being directed at are marked by bold arrows.

→ = IS DIRECTED AT



Let us now explicate the specific claims represented in Diagram 6. Beginning in the left upper quadrant, the diagram embodies the claim that the General is directed at the Telic, which in its turn is directed at the Necessary. The General is that aspect of the Efficient that is concerned with efficient causal law. This realm of general law constrains the possible patterns of efficient causal interaction, thus preparing the way for teleological connections to emerge. For one thing happening for the sake of another is a relation that can only be instantiated against the background of General regularities ordering nature. Moreover, this emergent Teleology finds its end or purpose in the Necessary, which then gets comprehended as a result of the final achievements of Teleology.

In the upper right quadrant of Diagram 6 we have the claim that the Componential aspect of Matter is directed at Form. That is to say that Matter in its role of component of the hylomorphic particular, finds its point in sustaining Form. Matter is not merely arbitrarily located varieties of kinds of stuff governed by natural law. Contrary to the Reductive Materialist, Matter is there for the sake of Form.

In the lower left quadrant, we have the claim that the Structural aspect of the Sensible exists for the sake of the Cognizable. This is the very plausible idea that the point of sensing structure is to provide the materials for Cognition. This fits with a picture of the mind as a set of abilities in which the lower abilities such as sensing are for the sake of the higher such as cognition. This is of course very different from the picture provided by a reductive empirical psychology where all of our mental capacities are on the same level, so that nothing is made of mind being for the sake of anything that transcends individual human interests. But throughout we have emphasized that the mental is a late manifestation of an inherent purpose in the very structure of things.

We now come to a sequence of teleological connections that is the most important of all. Indeed, it is a pictorial representation of the culmination of our whole argument.

Diagram 6 displays this series of claims: The Patterned aspect of the Kinetic is directed at or exists for the sake of the Stable, which is directed at the Comprehensible, which in its turn is directed at Universal Being—the form of Being itself.

Here is a teleological arc that sweeps across the whole of the Particular aspect of Being and finds its culmination in the fact that the Comprehensible is directed at the Universal aspect of Being. As is depicted in our diagram, the Universal aspect of Being resolves, via the Contingent and the Necessary, into the four aspects of Being that ground the four fundamental kinds of comprehension or understanding, namely the Efficient, the Teleological, the Material and the Formal. The emergence of Stable Spatio-temporal Particulars out of Kinetic Pattern thus finds its completed purpose in the Comprehending of the Universal aspect of Being.

Our name for this long teleological arc *from* the Patterned aspect of the Kinetic aspect of Spatio-temporal Particular Being *to* Universal Being itself is *Coming to Understanding*. It is the thing for the sake of which there is Patterned Kinetic Spatio-temporal Particular Being. 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. This then is the detailed content of our fundamental claim that Being is instantiated in contingent for the sake of understanding.

Our method of deriving this result may be distinctive, our insistence on the four causes as the structuring relations among the Categories may be surprising, and our emphasis on Being Itself as the pivotal Category in terms of which all other Categories are to be explained may be controversial. But our destination will now seem utterly familiar to anyone who is fortunate enough to recall Socrates' speech from Plato's *Phaedrus*:

The place beyond heaven, none of our earthly poets has ever sung or will sing its praises enough! Still, risky as it may be, I must attempt to speak the truth about it, especially since Truth is my subject. What is in this place is without color and without shape and without solidity. Found there is the Being that really is what it is, the subject of all real Knowledge, the soul's steersman, which is visible only to intelligence. A god's mind is nourished by this pure Knowledge, as is the mind of anyone that is concerned to take in what is appropriate to mind. Such a person is delighted at last to be seeing what is Real and watching what is True, and so feeds on all this and feels

wonderful, until the circular motion brings it around to where it started. On the way around it has a complete view of Knowledge. This is not the knowledge that is close to change, the knowledge that becomes different as it knows the different things that we consider real down here. This is instead the Knowledge of what really is what it is. And when one has seen all things as they really are and feasted upon them, one sinks back inside heaven and goes home... Now this is what it is to participate in the life of the gods.

Phaedrus 247c –248a.