CHAPTER NINE
THE MATCH OF MIND AND WORLD

9.1 Abstract Entities and Ideal Objects

It is one of the most interesting, but perhaps unappreciated, facts about the world that our minds, and presumably other minds, can understand the world and the things that exist within it. I am not speaking of the fact that the universe is so well described by mathematics, physics, etc., though that is certainly included in the above consideration. Also, I am not just speaking of the fact that the universe in general seems to be understandable to the mind, though again I am including that fact. What I am speaking of here is something more basic than these contemplations. Beyond the explanatory details of physics, beyond the ponderings about the universe, beyond the ability to understand all kinds of different things (physical, phenomenal, ideal, and even oneself), is the very astounding fact that there is such a thing as *understanding* at all.

Both understanding and minds, I will argue, are therefore primitive terms.[1] This is not to say that they cannot be broken down into elements. For example, suppose that I understand that my computer is refusing to cooperate with me, which happens fairly frequently. In this case, there are three fundamental parts. The first is me, the second is the computer in its uncooperativeness, and the third is my understanding of the uncooperative computer. All three parts, the subject, which is a mind or self, the object, and the act of understanding are necessary, and are necessarily contained in the act of my knowing about my uncooperative computer.

In chapter six I dealt with the knowability of the sensory aspects of our knowledge, the propositions that are involved with them, and abstracta as ideal objects in the mind of God. I will add further thoughts here to continue and broaden the discussion. I will argue that everything we know about, and everything that exists, whether physical or not, is essentially understandable. Which is to say that, regarding everything in the actual world that we understand, since we understand these things in the actual world, W, then it is part of their essence that they are understandable. This follows straightforwardly from the Brouwer axiom, which is,

(9.1) If P is the case, then it is necessarily true that P is possible.[2]

So, to put it in the relevant context, if we can understand something, then it is necessarily true that it is possible, at least under some certain sets of circumstances, to understand it.

Take some physical object, say a particular lamp. In *W*, the lamp is placed close to me. I can observe and remember the lamp, including truths about it—its properties and its background, for example. With this, I can understand the lamp, at least in part. I understand that it is a lamp, that it is partly made of ceramic material, that it is a thing used to create light, that it is not part of the Eiffel Tower, etc. Indeed, if one also counts negative propositions and relational propositions, an infinite number of propositions can be derived from any particular object in existence, whether physical, phenomenal, or ideal.

The primary point to consider now is understandability being part of the essence of things. The important point here is that not only are objects, events, and properties intelligible, but they are also *essentially intelligible*. The very nature of *being* includes intelligibility.

What is meant by *essential property* is the following. As was shown in chapter six, according to the Brouwer axiom,

(9.2) *F* is an essential (or *E*) property of *x* if and only if *x* belongs to (is a property of) *x* in every world in which *x* exists.

Therefore, if some object *G* in the actual world *W* is knowable, it is a property of *G* that in *W* it is knowable. Granting the truth of the Brouwer Axiom, it is also a property of *G* in every world in which it exists. That is, since it is the case that *G* is knowable, it is necessarily true that it is possible to know *G*. Given some possible world, *W'*, wherein *G* exists but where there is no one with the capacity to know *G*, *G* is still knowable in the sense that in every world wherein both *G* exists and there are beings capable of knowing *G*, *G* is knowable. If the God of classical theism exists, necessary and omniscient, then there are no such worlds such as *W'* where there is no being who can know things; rather all possible worlds have a being who can know things like G existing *in them*. Since propositions like *G* are knowable in *W*, and in every other world in which it exists, they then have the property of being knowable essentially.

Since "knowability" is, therefore, an *essential property* of very many things—indeed, I will argue, all things—it follows that a fundamental and universal (or at least very widely held—I will say *all* for now) component of being is that it is intelligible. All of the things that we think about, and many more that will never be thought of (again, with the exception of God thinking about them), are essentially intelligible. Reality is therefore, by itself, essentially related to consciousness; it is part of the very nature of being that it is knowable.

One view that I strongly wish to distance myself from is the view that reality is limited to what we human beings can know. This view may sometimes be labeled *idealism* or *positivism* or something else. That is not what I will be arguing. I am arguing for the match of consciousness in all of its possible forms, which is had by all sorts of logically possible beings, and not just of human beings. There are countless things that human beings do not know, and never will—but I hold that they still exist in some determinate manner.

So far I have been assuming that all being is in fact knowable. But how do we know that this statement is true? What reasons do we have for thinking that all reality is knowable? Of course, one way of arguing this would be to presuppose the truth of some version of classical theism, wherein God is omniscient, knowing the truth of every proposition in every world. If God is omniscient, then by definition he knows everything, and therefore everything is knowable. However, I will also investigate whether or not there are other reasons for accepting the thesis that everything is knowable, based on the nature of what it means to exist.

Immanuel Kant once argued that there were some things, the *noumena*, or things-in-themselves that were unknowable to us, because of the manner in which our minds were constructed.[3] Thus, for Kant, there were things, countless things really, whose natures are forever beyond our grasp. For him, all that we can know are the phenomena, never the things in themselves. Although I do not think that many philosophers now hold to Kant's particular thesis regarding the *noumena* and phenomena, his position must be taken into consideration. In fact, there are other ways of assuming that not all of reality is knowable. For example, Heisenberg's uncertainty principle holds that the position and momentum of a subatomic particle cannot be known simultaneously. This is not quite the same thing as being unknowable, but perhaps it is significantly close to it. At any rate, it might be argued that there are subatomic particles that are so small, and so different from the macro world we live in, that they are forever unknowable, because of the way that our minds are constructed. How do we know that this is not true?

However, even were this true, by itself it would not give us a reason to think that the noumena or the subatomic particles could not be understood by minds constructed in some other manner than human minds. Why could there not be minds for whom direct access to all objects is possible? If the concept of an omniscient God is coherent, there is, by definition, a mind that can know the truth about all objects and their properties. One might argue against this: that merely raising the possibility of minds that can know does not show that there are such minds, but merely renders agnosticism about the question. I think there are considerations that will be able to move the debate beyond agnosticism on this question.

Suppose that the argument given above were put in the opposite way. That is, what would it take for something to exist and not be knowable for some possible mind? It is hard to see what it could be. There is an inconsistency in Kant's reasoning. He maintained that the noumena were unknowable, but that we know that the noumena exist. If we know that the noumena exist, then we do know something about them, which, even if it is not much, is not nothing. Not only do we know that they exist, but that they exist in some manner so as to be legitimately called noumena. If we can know something about the noumena, it is hard to see why we, or someone, can't know other things about them than their mere existence.

What kind of thing, using the term very broadly, could exist that was intrinsically unknowable to any possible mind, even that of an omnicompetent God? All things that exist must exist in some manner. They are subject to the logical laws of identity and non-contradiction. Everything that exists or can exist has the property of being self-identical. This by itself indicates that since everything that could exist necessarily exists in accordance to the laws of logic, then everything that exists is at least knowable in those terms. There are philosophers today who embrace what is sometimes called dialethic logic, where in certain cases real contradictions can exist in reality. However, even those philosophers who embrace this idea seem to think that at least we can understand the contradictions—that both sides of the contradiction, so to speak, are intelligible. If both of the propositions in the alleged contradiction were not intelligible, then they could not be understood, in which case, one could not derive a contradiction? However, I strongly hold that dialethic logic should be rejected, though I cannot discuss the matter in any detail here.

Since I hold that everything that exists or could exist is necessarily bound by the basic laws of logic, it then follows from this proposition that every possible thing is constituted of determinate parts of properties. What about them could thus be unknowable or unintelligible to any possible mind? Again, it is difficult to see what it could be. I believe that this consideration at least puts the burden of proof on those who deny that all being is knowable. (An interesting point might be that even were it true that not all being is knowable, how could we even know this?)

There is another possible objection to this, which comes from quantum mechanics. According to mainstream interpretations of quantum mechanics, "[A]n object can be shown to be wholly in one place or, by a different choice of experiment, could have been shown to have been distributed over two locations."[4] So, it might be argued, some things—subatomic particles specifically—are not determinate in the manner in which they exist.

In response to this, I think that it can be argued that what exists is determinate—but that some things, like subatomic particles, exist in different determinate manners according to how they are observed. That is, they exist in

some determinate but probabilistic way until they are observed, but the act of observing them causes them to become determinate in more ways. Subatomic particles exist as "probability" fields (whatever that completely means) before being observed, and are determinate in the characteristics of a probability field, but when observed become nailed down to one location. The whole of quantum physics is quite odd, but there seems to me to be nothing that says that there exist things at the subatomic level that are intrinsically unknowably or are truly indeterminate.

A related challenge is the following: Heisenberg's Uncertainty Principle states that no one can know both the position and the momentum of a subatomic particle at the same time. So, it might be argued, though one could know either of them, one could not know them together simultaneously. It might then be argued that some things are unknowable as a whole, even though the parts might be knowable, and that this therefore contradicts the position that I have been defending.

I do not think so, though to overcome this, I may have to appeal to the concept of an omnicompetent God. Regarding the position and momentum of particles, we approach the matter as observers. God, on the other hand, is thought of as creator and sustainer of finite beings such as particles. Given this form of theism, particles exist in the manner that they do because God causes them to exist in that manner. God is thus not an observer to something foreign to him, but rather the actualizer of them. Given this, on classical theism, it seems that everything could be known at once. Or, given some other version of theism, as long as the God being considered has the same functioning as the classical God, full knowledge is possible.

What I am arguing is that all being is essentially thinkable, in the very broad sense that it can be understood by some possible mind, even if only by the mind of God. It will still be the case that there are things that will be forever unknown to us, or to any other finite minds. In a very real sense, what I am proposing is therefore a sort of anti-verificationism; as what I hold is that all being is intelligible, and therefore meaningful, and thus is by its nature knowable to some possible mind.

Another way of thinking about the above is the following: it should be acknowledged that the real is rational and that nothing that is really irrational, that does not follow the laws of identity and non-contradiction, could possibly exist. From this it follows that only the rational, that which exists in accordance with the laws of logic and in terms of a determinate self-identity, can exist in any possible world. This being the case, I can see no reason why, for any fact or state of affairs, there could not exist some mind that could comprehend them. No matter how complex or obscure the fact or state of affairs that we humans, for example, cannot understand, it always seems that one can conceive a greater mind that could understand them.

It further seems that the concept of beings that are intrinsically unknowable to any mind may well be incoherent. First, if there are beings that are in fact intrinsically and totally unknowable, they can have nothing to do with us, or any other sentient being for that matter. If they did exist, then at the least we could know that there was some remote cause of some phenomenon that affected us. Even if there were such beings, they could not have any real existence at all, for to exist is to have a property that is intrinsically knowable; that is, we can understand to some extent what it means for something to exist.

Besides that, it is unquestionable that there are many, indeed countless beings, both actual and possible, about which we can know *something*. Since this is the case, all of these beings are intrinsically and essentially knowable. If they were not, we would not and could not have any interaction with them. This fact leads us to examine the relationship between being knowable, and the other characteristics of being. To sum the matter up, I see no real alternative to the position that for any possible entity, property, or event, there could possibly exist a mind that could comprehend it. Leslie Armour writes, "I take it that any suggestion that we cannot talk sense [that is, speak intelligibly about reality] cannot be entertained since the result would be self-contradictory. The denial would involve an implicit assertion of what it denied. I do not believe that any of the weapons in the logician's armoury . . . will enable us to avoid taking talking sense as an essential axiom. . . ."[5]

Finally, I will give a related argument supporting my position from Bernard Lonergan. He writes the following,

> Now being is completely intelligible. For being is the objective of the detached, disinterested, unrestricted desire to know; this desire consists in intelligent inquiry and critical reflection; it results in partial knowledge inasmuch as intelligent inquiry yields understanding and critical reflection grasps understanding to be correct; but it reaches its objective, which is being, only when every intelligent question has been given an intelligent answer and that answer has been found to be correct. Being, then, is intelligible, for it is what is to be known by correct understanding; and it is completely intelligible, for being is known completely only when all intelligent questions are answered correctly.[6]

What Lonergan seems to be arguing here (and his argument is much longer and more complex than I can explain in detail here) is that, by nature, human beings desire to know what being is. One may keep asking questions, and when one question is answered, another will arise to take its place. There are different ways to state the argument.

For example, one may ask what material objects are composed of. A response may be that they are composed of molecules. Then one may ask what

molecules are composed of, and the response may be that they are composed of atoms. The questioning can continue—atoms are composed partly of electrons. Electrons have certain fundamental properties. And, one may then persist with the queries as to why electrons have these properties. The point is that an infinite number of questions may be asked about *Being* in all of its forms. For every question that may be asked, the answer may be intelligible or it may not be intelligible. However, since they are both answers to the same question, it is difficult to see how there could be at least two conceivable answers, one of which is intelligible and the other, which is not. It is also difficult to see how intelligibility could be related to, or even grounded in, something that is essentially unintelligible to all possible minds. How can there be a coherent relationship between something that is intelligible and something that is not? For this reason, and others, Lonergan's argument shows that Being is by nature that which is intelligible.[7]

It is therefore true that all being is, by nature or essence, and therefore necessarily, understandable by some subject or possible subject. This has several important implications, one of which is essential for understanding the nature of being itself and the mind's place in reality, which I will attempt to bring out in detail below. This includes the fact that whatever else they may be, physical entities are by nature things that are completely intelligible, and thus, like everything else, graspable by conscious minds.

What then is the nature of physical objects, abstract objects, and phenomenal or ideal objects? It is the relationship between these various kinds of objects that, when properly understood, will bring all the world together into one understandable system of reality and thought. For though they are very different kinds of being, they all belong to the same reality, which contains the actual and the possible, with necessary relationships holding between them, and thus must be part of the same reality.

First, there are abstract entities or ***abstracta***: things like numbers, universals, propositions, sets, and so on, that I have also called ideal objects when properly understood. To reiterate, part of what was discussed before is the nature of abstract entities like those listed above. Besides the debate between the realists and anti-realists or nominalists, there is the question as to what abstracta would be if they were to exist: ontologically dependent or independent beings. In Plato's theory, forms were independent beings. Modern theories of abstracta which likewise pose abstract entities as being ontologically independent of any other being are often called versions of Platonism. Alvin Plantinga writes,

> 'Platonism' is often used to name the view that among the furniture of the universe are such abstract objects as propositions, possible worlds, numbers, and properties. Your true Platonist,

> however—Plato, for example—doesn't hold merely that these things exist; she holds that they exist *independently* of everything else. Hence they exist independently of minds and their noetic activity; they aren't in any way dependent upon mind. This is realism run amok; and it is this that the impulse towards anti-realism is an impulse *against*. It is worth noting that Platonism properly so-called has been a rare bird in our philosophical tradition. Plato, as I say, was in at least some moods a Platonist. Bertrand Russell was too, at least for a while, and so was the young Husserl, although he outgrew it. No medieval philosopher was, I think, a Platonist, and neither was any modern philosopher before Frege, if indeed Frege was a Platonist.[8]

Although many philosophers believe that there are abstract entities of various kinds, other philosophers disagree. This is one of the ancient battles in philosophy, between the realists about abstracta on one side, and anti-realists called nominalists on the other side. J. P. Moreland divides the nominalists into moderate nominalists and extreme nominalists. Extreme nominalists "[d]eny the existence of properties altogether."[9] Moderate nominalists believe "that properties exist and are abstract particulars."[10] The essential difference is that realists hold that there are abstract universals such as properties that would exist even if there were no concrete existence, while nominalists reject this and propose a theory wherein those kinds of objects do not exist.

Realists argue, for example, regarding universals, that when two objects are of the same identical blue color, that said color blue must exist and be instantiated in two different physical objects. Though a property of two numerically different objects, it is in a real sense the same color blue. Further, realists hold that even were there no blue objects in the universe, blueness would still exist as a permanent possibility of color instantiation. Even if some possible world never has any blue colored things in it, the mere fact that there are other possible worlds wherein blue things do exist, shows that blueness, as opposed to a blue physical object, exists, and exists necessarily whether it is instantiated in some physical object in some particular possible world or not.

Edward Feser gives a list of arguments for the reality of abstracta, which because of its length, I have outlined in the endnotes.[11] It seems to me that a strong case for the realist position regarding universals and other abstracta has already been made, and therefore I will not attempt to make an argument for realism here. However, by realism, I do not mean Platonism. Indeed, what I am calling realism here is called anti-realism by Plantinga. The version used here is a kind wherein universals such as properties are abstract entities which can be exemplified in the spatio-temporal world. However, what the abstract enti-

ties are, are ideal objects in the mind of God. But they exist eternally and necessarily, just as Platonic abstract entities are also supposed to do. They just do not exist independently.

This point seems clear. Given classical theism, God is essentially omniscient—he knows the truth of all propositions. Further, given God's necessary existence, he exists in all possible worlds and knows everything in every world. This being the case, he essentially knows all abstracta. For example, he knows all green objects in all possible worlds, as well as the concept of greenness itself. Also, his knowledge of almost everything would be the same in all worlds. The only knowledge that would be different would be relative to the world that was actual.

That is to say, in *Wa*, which is our world, the actual world, God would know that Cleopatra actually existed. In some world *Wb*, where Cleopatra never existed, he would know that Cleopatra exists in *Wa,* which would not be the actual world in *Wb*, of course. In *Wb*, God would know that Cleopatra could have existed, but didn't.

Thus God's knowledge of abstracta like numbers, worlds, and universals would be the same in all worlds. Given this, it seems that God's knowledge of these ideal entities would be necessary and eternal, for they would all exist as ideas in the divine mind. And this sounds a lot like what abstract entities are. As stated above, the main difference between this and Platonism, is that the *ideal objects* would be dependent, rather than *dependent entities*, as they are in Platonism. This is actually an advantage, for it now becomes much easier to explain how the various ideal objects can be instantiated in the concrete world, either physically or phenomenally.

It might be of some interest to see how, in fact, the argument would be adjusted given nominalism. On a basic nominalist system, universals as such do not exist. So, if there are two things with the same color, say two red apples, there is not, in contradistinction to realism, that color red being instantiated in two places. Rather, there are two individuals who have an exact similarity between them regarding color. That is, on this theory, there is not one redness that is instantiated in two different places, but two different reds that are exactly similar to each other.

The relevance to the matter at hand is, however, how this picture of universals fits in with the concept of abstract entities and God's knowledge of them. It seems to me that given nominalism, what one would have to say is that God would know every possible world, the different properties that would exist in them, and their relationship to each other. That is, in the case of the two red apples, God would know of their existence, of the nature of their red color, of the *exact similarity relationship* between them, and that this would be sufficient. After all, there is still a different relationship between the reds of the two apples and the blue of a blueberry, for example. There is an *exact similarity*

relationship between the two reds, while there is none between the reds of the apples and the blue of the blueberry.

This being the case, God would know all the exact similarity relationships that there could be, and the relationships that did not have exact similarity. God's knowledge of these exact similarities, and their natures, would still serve as a ground for the ideal—and thus derivatively for the instantiation of concrete entities bearing the same properties. God would know all of the possible exact similarity relationships, and would serve as universals, and thus as one form of the ideal objects. Possible worlds, as objects as thought, would be another form of ideal objects, as would other abstracta. Functionally at least, it seems that this would be the equivalent to realism regarding universals, and therefore the basic picture of God and ideal objects would not change.

There are also arguments that are given against realism regarding abstracta. Chris Swoyer briefly writes on both the advantages and disadvantages of believing in the existence of abstract entities, "The primary philosophical attraction of abstract entities is that they seem to offer so much explanatory power."[12] Moreland makes the same basic point, stating, "[T]hree phenomena have been most important in the debate: predication, exact similarity and abstract reference. In each case, the realist appeals to what appear to be obvious facts, claims that they have a straightforward and powerful way of accounting for those facts and then challenges the extreme nominalist and moderate nominalist to come up with an equally plausible analysis."[13] For example, the mere fact that two objects have the same color red can be given a "powerful, direct"[14] explanation on a realist basis, because, given realism, both objects are exemplifications of the abstract property of redness.

Thus, I do not think that the essential points that I am making would change in either case. That is, I believe the argument can be made no matter what stance one holds toward abstracta. The question would still remain: how do universals (however they are thought of) exist, how are they exemplified, and how can we know them in themselves?

Swoyer also gives reasons for disbelieving in the existence of abstracta. He writes, "Few philosophers like ontological bloat."[15] Regarding this, some philosophers think that additions of abstracta give us a bloated ontology—that in addition to the physical universe, we now also have an infinite number of abstracta existing somehow, related to each other and to us somehow, most of which we will never know exist.

Swoyer lists another, perhaps the greatest, difficulty that can be given against the existence of abstract entities. He writes, "Epistemology is the Achilles' heel of realism about abstracta. We are biological organisms thoroughly ensconced in the natural, spatiotemporal causal order. Abstract entities, by contrast, are atemporal, non-spatial, and causally inert, so they cannot affect our senses, our brains, or our instruments for measuring and detecting."[16]

This is a fundamental issue, because it can be argued that everything in the universe, both physical and phenomenal, is, in fact, constituted by abstract entities. Take, for example, a bouncing green ball, with a 3-inch diameter. The ball is constituted of the universal property of that color green, the universal of being 3 inches in diameter, the universal of being bouncy, and the universal of being a ball. Take any object, either physical or phenomenal, and one will see that it contains various properties, as well as an identity of being a particular kind of thing. Indeed, everything about the object can seemingly be an exemplification of a universal. If we cannot know abstract entities or universals, how can we really understand anything?

I will argue that the way that these problems can be solved, at least partly, is indicated by the intrinsic knowability of all objects. What I will propose and describe is a theory that is a form of realism that I have above called ***theistic conceptualism***. This is not a new theory; indeed many philosophers over the centuries have held to it. First, the different aspects of the theory (regarding the different kinds of being of which reality is constituted) must be explored in depth. Then they must be brought together in such a way so as to show an integrated reality.

First, I will reconsider the concept of abstract entities, and also that of ideal objects, which I considered above in chapter six. Husserl wrote,

> There are, in fact, merely certain necessary and valid connections among 'objectless ideas', whose analogy with truths governing ideas having objects, has prompted this talk of objects merely presented which do not genuinely exist. Ideal objects, on the other hand, exist genuinely. Evidently there is not merely a good sense in speaking of such objects (e.g. of the number 2, the quality of redness, of the principle of contradiction, etc.) and in conceiving them as sustaining predicates: we also have insight into certain categorical truths that relate to such ideal objects. If these truths hold, everything presupposed as an object by their holding must have being. If I see the truth that 4 is an even number, that the predicate of my assertion actually pertains to the ideal object 4, then this object cannot be a mere fiction, a mere *façon de parler*, a mere nothing in reality.[17]

In the above, Husserl is defending realism regarding abstract entities. He seemed to regard them as essentially ideal objects, as things that can be known, which is the reason for the shift from calling them abstracta to ideal objects—which are abstracta as essentially objects of thought. He considers them to be real because they can be understood at different times and places. The number 4 is the same for everyone, and is necessarily a number that is evenly divisible by 2. A shade of the color red has necessary relations, standing between two

other shades of red. All of this, and countless other things can be understood by rational minds. They exist as really, though in a different manner, as physical objects do.

Dermot Moran writes regarding this, "It is simply a fact that these ideal meanings (*Sinne*) present themselves to us as something that is subjectively grasped: '. . . ideal objects confront us as subjectively produced formations in the lived experiencing and doing of the forming.' This is their 'being-for.' They are always truths *for* some possible mind, subjective acts are 'constituting acts' for these ideal objectivities."[18]

So, granting some version of traditional realism toward abstracta or ideal objects, they are essentially transcendent to time and space, and yet can be exemplified in the spatio-temporal universe, and are available to our minds, and presumably to the minds of many other rational creatures. How can this be? That is, how can these abstracta become available to finite minds?

One traditional way of approach to this question is *empiricism*. Another traditional answer is *rationalism*. The debate between empiricism and rationalism is one of the oldest in philosophy, and is still going on. Thus, it is far too large a subject to investigate fully here.[19] All that needs to addressed here is the following. Suppose that Mary the escapee from the black and white room sees two identical blue objects, and in fact sees blueness for the first time, and then thinks of the nature of blueness. It is apparent that she learns of the phenomenal nature of blue from sense perception, while she comes to understand the property of blueness with her intellect, and that it is closer to green than it is to red, two colors that she has seen before. There is the original sense perception of course, but also the *a priori* of intellectual insight. Still less does it tell one that, if one accepts traditional *realism* regarding universals, that a blue object is a complex object composed of a universal, a nexus of exemplification, and an individuator, which is like a bare particular, or some equivalent to it. Laurence Bonjour therefore seems to be right when he states, "The indicated conclusion is that a viable non-skeptical epistemology, rather than downgrading or rejecting *a priori* insight, must accept it more or less at face value as a genuine and autonomous source of epistemic justification and knowledge. This is the main thesis or epistemological rationalism. . . ."[20]

If what is most fundamentally meant by rationalism is that we must have intellectual insight when we cognitively grasp the nature of an entity, then we must be rationalists. However, even if is correct, the problem still remains as to how one comes to know the different abstracta, or different ideal objects, as objects of knowledge. There is no question that most of what we come to learn has its origin in sense perception. A weak rationalist will admit that all knowledge has a sensory starting point. As I said, we only first learn about blueness by seeing blue things.

How would nominalism affect the argument that I have been making about universals? In these theories, abstract entities such as properties or universals, do not have existence as entities outside of the spatio-temporal universe. The answer I give is that while the ontology would be different, the basic problem of how abstract entities enter the mind of finite creatures such as human beings as ideal objects still remains to be answered. Given, for instance, a version of moderate nominalism, properties are abstract particulars, and the question still remains how an abstract particular can be grasped by the mind of a finite being as an ideal object. For the sake of simplicity, I will discuss matters from the position of traditional realism.

9.2 Possible Worlds

This leads to another question beyond the issue that we have been examining: how can abstracta become exemplified in physical objects? Suppose that up until time *t* in some possible world *W** there were no blue objects. Then, due to some sort of chemical change that never happened before *t* in *W*,* an object colored blue first appears in that world. Then suppose that we take a traditional realist view of colors. In this case, blueness is a necessary abstract entity, even when there are no blue physical things in existence. How does it happen that the physical world can have blueness instantiated in it—given that blueness, like so many other constituents of reality, is an abstract entity, transcendent to space and time essentially, existing in physical objects only contingently, and usually thought of as not entering into causal relations? How does a blue physical object come into existence, exist at a certain part of space-time, and enter into straightforward causal relationships? Given the tremendous gap between the abstract and ideal on the one hand, and the physical, how is the gap between them to be bridged?

I will briefly sketch an outline of what I think are the relationships between the different kinds of beings.

(9.1) Abstract entities exist necessarily, aspatiotemporally, and acausally.
(9.2) Physical objects exist contingently, spatiotemporally, and causally.
(9.3) In some sense, however, physical objects are partly constituted or composed by abstract ones. In other words, take a blue ball. The ball is constituted by the color blueness, the geometrical shape of sphericity, the number 1, as being one ball, and as existing in different propositions—such as "The blue ball is on the table," etc.

It should be apparent that most of the same factors that allow us to know abstracta are what allow us to know physical objects, and vice versa. Physical objects are in some sense partly composed of, or to put it differently, are exemplifications of, abstract entities, and are thought of as ideal objects when they

are understood by conscious minds. Physical concrete objects are themselves also things that are understood by minds, as they are composed of abstracta concretized, or physicalized, so to speak. In short, abstract objects existing in themselves, and also when they are instantiated in or as physical objects, are intrinsically and therefore necessarily intelligible to minds.

The primary point is that abstracta exist necessarily in themselves, but when they also are instantiated physically, they are the same with the addition that they are in one unusual sense of the word *indexicalized*. What I mean by this is that they exist at a certain time and place in a certain possible world, such as in the actual world, with relationships to other physical objects, properties, and events in that same world. If that world is actualized, then they are actualized with, and in it. So it is in the actualization of possible universes that the relevant abstracta are automatically actualized.

Alexander Pruss holds that there are five versions of how to think of modality, which is directly relevant to the issue of possible worlds. He lists them as: *Narrowly logical*, the *Lewisian account*, the *Platonic account*, the *Aristotelian-essentialist account*, and the *Aristotelian-causal account*. Although his main interest is the Principle of Sufficient Reason, his work may be adapted to the issue at hand. I will separate the Lewisian account from the rest, and discuss the four other accounts first, examining the Lewisian version last.[21]

Listing the versions of modality in accordance to Pruss's list, they may be briefly described thusly. With the ***narrowly logical version***, logical necessity is equivalent to *provability*. This seems inadequate, for it would limit necessity to what we can prove, and it seems obvious that there are many necessary truths that are beyond our ability to prove, or that we have no knowledge of at present, and doubtless never will. For instance, it seems to be necessarily true that there either are, or aren't, seven consecutive sevens somewhere in the decimal expansion of pi. However, this may be forever beyond our ability to calculate, as some mathematical truths are, as the decimal expansion of pi is infinite, and hence unknowable to us. So, it seems impossible that necessity should be contingent on the reasoning powers of human beings or of some other finite creature. It seems that the only way that this view could be made plausible would be to say necessity is whatever God can prove as necessary, as God is by definition omniscient and supremely rational. So to make the narrowly logical view plausible, theism would have to be assumed.

The ***Platonic version*** holds that possible worlds are abstract entities. Thought of like that, possible worlds are entities that stand as necessary abstract objects that could have been actualized, though, necessarily, only one of the possible worlds is indeed actualized. Assuming that this is the case, then every object in every world exists as an abstract entity in each possible world(s). Thus, they are all abstracta which are part of a larger abstract entity—the possible world.

This theory holds that abstracta are entities, which if they exist, are infinite in number, and exist eternally and necessarily in many different kinds of necessary eternal relationships. Some of these objects, possible worlds, are constituted of other kinds of abstracta. For example, in some possible world there are blue objects, loud noises, a total number of volcanoes, and the whole world is describable by propositions, themselves infinite in number. It is also true that not all abstract entities are contained in possible worlds. For example, the universal of blueness exists in all possible worlds, but is not itself intrinsically a component of all possible worlds. It exists as a first order universal in itself, and a second order universal when instantiated in a possible world if that world is the possible world that is actualized.

Pruss criticizes this version.

> Why is there this apparent coincidence that anything made possible by this-worldly powers and capacities and dispositions happens to correspond to a proposition in the Platonic realm that has a certain abstract property? The Platonist is unable to explain this coincidence between powers in our universe and abstract facts about the Platonic realm, given the lack of causal interaction between the two realms.[22]

One response to the above objection would be to again appeal to theism. If abstract entities are ideal objects existing in the mind of God, and if God is the creator of the actual world, then one can see how there would be a match between the possible world considered as a possible world, and the actual world which is that possible world instantiated. God, being by definition a perfect being, does everything according to a rational plan, and being omniscient, knows all possible worlds exhaustively, and thus can actualize one of them according to his plan and knowledge.

The third theory in Pruss's list is the ***Aristotelian-essentialist theory***. Here, what is being held is that a sentence is necessarily true if and only if it is always true. By itself, this is unsatisfactory, as it does not differentiate that which is necessarily true from what just happens to always be true. As Pruss writes, "If it should turn out that the past, present, and future of our world contain no golden mountains, that would say nothing about whether golden mountains are possible."[23] After listing other objections to the theory, such as that it makes it virtually impossible to draw a boundary to what the essences of things are, that just the right properties are included, Pruss goes on to write, "The Aristotelian, however, cannot tolerate this, *unless* the Aristotelian is a theistic Aristotelian who accepts that all essences have some kind of an existence in the mind of God. Thus, unless one accepts theism, the theory seems to be unsatisfactory."[24]

The final non-Lewisian theory is the ***Aristotelian-causalist account*** of modality. Here the crucial idea is that a state of affairs *S* is possible if and only

if something exists at some time that has the power to bring about *S*. This view seems to have the problem that it is logically possible that some things could have existence—subatomic particles quite different from any that actually do exist, for example—but which cannot be derived from the causal powers of anything that exists at any particular time in the actual world. The only way out of this that I see is to include God as necessarily existing, since by definition, God is omniscient and omnipotent, he can create any object or state of affairs that does not include or entail a contradiction. So, to make the account work, God is necessarily brought in again. Pruss agrees with this, and writes, "[T]he main alternatives to this [Aristotelian-causalist] account of modality are unsatisfactory and/or require something like theism anyway."[25] In a later work, Pruss combines Aristotle's causalist view with Leibniz's theory of possible worlds existing as ideal objects in the mind of God, arguing that only this can give a satisfactory explanation to the notion of possible worlds.[26]

This brings us to the only real non-theistic theory, that of David Lewis. Up until now, it has been a part of the discussion that only one of the infinite number of possible worlds can be actualized. However, this is not universally agreed upon, for David Lewis has put forth a theory of possible worlds in which all of them are actualized. Pruss makes the following observations regarding Lewis's theory of what possible worlds are,

> A Lewisian world is, by definition, a maximal physical spatiotemporally connected aggregate. Every way that a world could have been is a way that some existing, physical world really is. This I call Extreme Modal Realism. According to the Extreme Modal Realist, there are infinitely many existing island universes, and unicorns and witches do exist, but not in our world. What makes it true to say that something could happen is just that it does happen in one of these island universes.[27]

For Lewis, all possible worlds are equally real. The actual world is merely the world in which we exist. All of the inhabitants of all the different possible worlds would, in those worlds that have inhabitants, on Lewis's scheme call the world in which they exist the actual world. Of course, not all worlds have inhabitants, but nonetheless, for whatever does exist in those worlds, they exist in the actual world. Lewis's view is thus that, in a very real sense, everything exists. All possible worlds are equally real; though obviously one cannot move from one to another, save in thought.

Since for Lewis, all worlds are equally real, it is also true that they are necessarily real; none of them could fail to exist. This is to say that there are no "possible worlds" wherein some of the possible worlds fail to exist. This sounds contradictory. I think that Lewis gives the wrong name to possible worlds. It would be clearer if he called his possible worlds "universes." A

possible world is everything that would exist, even if there were in that world universes separate from each other so that nothing could possibly reach any of them from any of the others—if that particular possible world were the one that was instantiated. In Lewis's model of possible worlds, and using his terminology, every world is instantiated, and therefore, using my preferred terminology, given Lewis's theory there is only one possible world, wherein every possible universe exists, and therefore every possible concrete entity exists. The importance of this is not merely a matter of terminology. This will be spelled out in more detail later on.[28]

For Lewis, then, since all possible universes exist and necessarily exist, there is really only one possible world—this world. In this possible world, all possible universes exist. This includes universes inhabited by talking donkeys and dragons (to use Lewis's favorite examples), universes where instead of human beings there are those little fuzzy monsters that they have on Sesame Street, and an infinite number of other universes. Given Lewis's theory, all of these had to exist, had to be real, and are equally real as our universe it. There are, given Lewis's EMR no possible worlds where this universe is the only one that exists, or where there are 23 existing universes, etc. To be possible therefore, given EMR, is to be real. The possible is the same as the real, though what *is* actual differs from world to world. Actuality is thus an indexical term. I will explain.

We use the word "actual" to refer to the world in which we live. The same could be said for all other people living in other possible worlds. So, for us, *W*, the world which we inhabit, is the actual world. For anyone living in some other possible world, the world in which they live is the actual world. So given EMR, actuality really turns out to be an indexical word like "here," and "now," and "I." This leads us to two questions to explore. First, is EMR a plausible theory of possible worlds? Second, what implications does EMR have for the theory of reality that I am expounding, and vice versa?

EMR has received much criticism. At the very least, it seems very counter-intuitive, which Lewis himself would have agreed with. There are, however, more problems with it other than mere counter-intuitiveness. For example, if EMR is true, then as Stephen Barr writes, "If all possible universes exist, then there is a universe where *The Wizard of Oz* is a true story, and another where Kermit the Frog is a real person. It is not surprising that very few people have ever adopted modal realism."[29] Indeed, EMR does lead to some strange conclusions. There are even stranger stories than *The Wizard of Oz*, or stranger beings than Kermit the Frog whose existence seems to be logically possible—and which would be real in one of Lewis's universes. This is not decisive against EMR, for Lewis could simply agree with the existence of odd worlds and beings, and go on his way. However, I believe that there are stronger reasons to reject EMR.

One of these is also pointed out by Barr. If all possible worlds are real and actual for the people living in them, then it would seem that

> [U]niverses would also exist that obey a set of rules most of the time, yet suffer occasional or frequent exceptions to them. There would also be universes that obey different rules at different times, and yet others that are so haphazard that hardly any general rules could be found to apply to them. Indeed, one would expect universes which are as consistently lawful as ours to be extremely exceptional.[30]

This being the case, if EMR entails that most universes or worlds are not consistently orderly, then it is an unsolvable mystery as to why ours is orderly, and why it remains so. Countless worlds would have the same history as ours up to a certain point, and then become chaotic or have some other set of natural laws. In EMR, the probability that we would live in a world where the laws are consistent is extremely remote. Since we do, EMR is also extremely unlikely itself, and is refuted by a *modus tollens* argument.

As stated, on EMR, *to be possible is to be real*. That is, the mere fact that some physical situation is possible means that it will be actual in some possible universe, and since on EMR all possible universes are equally real, it will be real *simpliciter*. However, why should this be the case? Why does just the possibility of something existing mean that said thing exists? This seems to entail the view that possibility is identical with reality. Lewis would perhaps respond by arguing that, given the more common position, it is also hard to see why, out of all the infinite number of possible worlds that could exist, the actual one is the world that does. I will investigate this below. However, we can certainly conceive of the difference between a universe's being possible and its being actual, and we can easily conceive a universe as being possible but not real, as not being instantiated at all. The burden of proof would be on Lewis to explicate why there cannot be things that are merely possible.

As I have argued, it seems extremely unlikely that EMR is true. Indeed, I tend to think that it is incoherent, though I will not argue this here. One added burden that an EMR theory of reality must hold to is that classical theism is necessarily false. In classical theism, God is a necessary being, existing in all possible worlds, and sovereign over all of them. That is, the classical God is free to choose to create or not create whatever he wants to. God decides what is actual and what is not. In EMR, since all possibilities are considered to be actual, God does not have control over them. Either they exist without being caused by God, or else God necessarily, by his nature, creates all possible universes—in which case his freedom is denied, which is contradictory to classical theism.

This later situation by itself causes at least two additional problems. First of all, if God necessarily creates all possible universes, then he must create universes that are truly awful—universes chock full of completely virtuous and innocent creatures who are in totally pointless agony for trillions of years or more. This seems incompatible with God's goodness. After all, the problem of evil with the amount of evil in the universe is generally considered the greatest objection to theism; and there are an infinite number of infinite possible universes, that are much worse than ours, that on EMR are really existing. So, it seems impossible that the classical God would create those universes.

Second, to say that God necessarily creates all possible worlds, no matter how terrible or boring they would be, has the effect of making God impersonal. It seems obvious that a personal being is in some sense greater than an impersonal one—a human being is greater than a rock or an electrical current. If God necessarily created all the different possible universes, he would create things automatically and without choice, which is different from the free choice that the God of classical theism has always been thought of as having. The concept of a personal God is greater than that of a merely impersonal "God," or the "One" or "Absolute," as it is sometimes called, which is without knowledge or will and which merely emanated creation. It would be a nonconscious being, and as such could not be considered the greatest of all possible beings.[31] This again contradicts the concept of God that has been held by classical theists.

Thus, EMR entails that classical theism is false. Many, if not most, philosophers will not object to this of course, but still, it takes a great deal more work to also have to demonstrate the falsity of classical theism than just having to argue that all possibilities are actual by itself. Ironically, it seems that theism is needed to make the first four theories work, while the fifth of EMR entails the falsity of theism. However, EMR seems false, so some theistic theory is left.

It therefore seems that some version of the ***Leibnizian theory*** that possible worlds are ideal objects in the mind of God is the best solution. Pruss argues that it is superior to all other theories.[32] I will not argue this at length, but assume the truth of some version of Leibniz's theory. I shall show that one reason for thinking it true is that this gives answers to many of the problems with which we have been dealing.

I have argued that there is only one possible world that is actual, although it is possible, perhaps even probable, that there is more than one universe in the actual world.[33] At the very least, there is nothing that I have argued that rules out that possibility. However, though many universes might exist, not all of them would. For example, it seems to me to be very unlikely that universes with Kermit the Frog and Miss Piggy would be actual, unfortunate though that

may be. Further, there does not seem to be any incoherence between classical theism and a many-universe reality—as long as it is God who chooses which universes are to be actual, rather than all of them necessarily existing, whether he wants them to or not. Indeed, some have thought that there is a natural affinity between theism and the multiverse, or world with many different existing spatio-temporal universes inaccessible from each other, as it might take many created universes for God to be able to express all of the different things that he wants to express—again, both ethically and aesthetically.[34]

Assuming that only one possible world is actualized, this leaves us with several puzzles. One puzzle is why, out of all the infinite number of possible worlds, the actual world is actualized rather than any other. Another puzzle is what it means to be actualized. In a sense, everyone knows what it means to be actual—that Barack Obama is actual while the Scarlet Pimpernel is not. Unless we adopt David Lewis's theory and terminology, or something like them, there is a very large difference between the actual world and all of the others.

However, this may give us a clue as to the difference between the ideal and the physical. Given classical theism, all possible worlds exist as intelligible ideal objects—and they are intelligible because they are known to God, as they exist as ideal objects in the mind of God. In addition, there is something that is added to the actual world. It is no more intelligible than the other possible worlds—for they are all equally intelligible—completely knowable, and indeed completely known. However, the actual world has an additional factor—which is that of being actual. Even in this case, the concept of the actual world remains as a concept. That is, the concept or ideal object of the possible world that is actualized does not itself turn into the actual, physical and phenomenal world.

I argue that the additional factor that separates the actual world from all of the other worlds, given theism, is that of God's will. That is to say, though all possible worlds are equally intelligible, and therefore equally open to God's intellect, and indeed subsist in it, only one of them, the actual world, is the world that God wills to exist. *W*, the actual world, is actualized, which is to come to exist in a non-ideal manner, and is modeled after the concept or ideal object of it subsisting in God's mind. That is, rather than the actual world just being the concept of a possible world, there is an added factor to it that all other possible worlds necessarily lack, which is that this world alone is willed to be instantiated.

The question of why this possible world is the one that is actualized is a significant one. The reason is that it seems incontestable that the different possible worlds, and the objects of which they are composed, are contingent. They do not have to exist. If we reject EMR as we should, then there *prima facie* seems to be no necessity in one of them being actualized rather than another

one. Since this existence is a contingent one, its existence is actualized either as a brute fact, or as a matter of will. Which is to say, since which of the possible worlds are actualized is a matter of contingency, there are only three ways to account for it.

First, the possible worlds that are instantiated are so for no reason, or by brute fact. The second is that some particular world—the actual world—has necessary existence. The third is that the actual world is actualized by a necessary being—which I have argued at length can only be the God of classical theism.[35] The first option cannot account for the rationality of the universe, while the second one can. The second option cannot explain the contingency in and of the universe. The third gives insight into the relationship between the different kinds of being: physical, phenomenal, and ideal. Further, the mere possibility that a universe can be actualized, by itself does not seem able to account for the sheer actualization of the universe—that this world is actualized, while all the other possible worlds, which are just as possible as our own, are not. There is nothing about mere possibility that implies actualization. Therefore, theism has superior explanatory value compared to naturalism and physicalism, because it can readily explain things that they cannot.

If the non-theist takes an anti-realist view toward possible worlds—denying their existence as abstract entities, the problem still remains. In most thought on the nature of the universe, it is usually held that the existence and nature of the universe is contingent, and the physical cosmos could have been other than it is. This being the case, it seems that there is an infinite number of other ways that physical reality could have been, and thus the problem still remains of why the universe exists as it is actualized. There is no answer to the query of why *this* universe is actualized rather than one of the myriad of other possibilities.

(9.3) The Problem of the Interaction of Immaterial Minds with Physical Entities.

One objection to God as the cause of the universe is that we do not know how God could create a universe. Objections to the concept of God creating something come in several forms, but one of the most common is that causation by God would be very different from the causation that we know of in the universe. For example, one might argue that the world God would create would be atemporal, and not involve physical laws—that the concept of being a cause cannot be applied to God. Another objection is that God is, by definition, an immaterial being, and that the causation that we know of is all made by material objects. Bede Rundle writes on these matters,

> Not only is causation not a metaphysical concept in its application to events in the natural world; it does not appear to be metaphysical

> in the sense that it might apply *beyond* that world. I can get no grip on the idea of an agent *doing* something where the doing, the bringing about, is not an episode in time, something involving a changing agent and a change induced through its action.[36]

Earlier in the same work Rundle had written, "The idea that an ultimate source of being and becoming is to be found in the purely mental and non-physical is at odds with the conception of mind espoused by most contemporary philosophers."[37] In response, it is true that the concept of a purely mental and non-physical mind which is the source of being is at odds with what most contemporary philosophers hold. However, I have argued above at length that the majority of philosophers are wrong on this point; and also that, in any case, the concept of God is different enough from our own minds so that criticisms that apply to the latter do not automatically apply to the first.

There is another objection here, of how our minds, or God's mind for that matter, if immaterial, can have physical affects. Rundle is not alone in his objection to the problem of immaterial minds as being causes having physical effects or immaterial minds causing physical effects. Bruce Russell makes the same point about both divine and finite minds not being able to affect the physical. He writes,

> The traditional mind-body problem is the problem of how an immaterial thing, the soul, can interact with a material body. It makes no sense to say that they interact at a certain place, say the pineal gland, for an immaterial thing does not have spatial location. If God is an immaterial being, a similar problem arises. How can an immaterial being act on material nature? We might call this the mind-body problem writ large![38]

What can be said in response to Rundle's and Russell's objections? To a certain extent, what we have here are differing intuitions. They both, doubtless with many others, seemingly cannot grasp how God, an immaterial, non-spatio-temporal being can cause things. I myself on the other hand, along with many others, have no problem with the notion. The God of classical theism is, by definition, the greatest of all possible beings, which includes the concept of sovereignty. For such a being, all that has to be done is for him to will something to be, and it is. This is a conceptual truth; the only question here being: is the notion of such a God coherent? Merely arguing that it is not coherent with materialism is insufficient to refute it.

Indeed, it could be argued that we have more problems with causation other than God's. God's ability to cause is analytic to his nature as the greatest possible being. The real problem is why and how other things, contingent finite things, can cause anything.

There are theories of causation that in fact can accommodate the notion of God causing things. For example, Robert Koons puts forward a theory of causation where "[c]ausal connections and order should be defined without reference to space and time, permitting the construction of a non-circular, causal theory of spacetime."[39] There is no place here to go into Koons's theory, or others, in any detail, but there are existing theories that, if correct, can account for God, and indeed other non-physical entities and properties such as modal facts, as being causes of physical effects.

Further, it is not at all obvious to me that the concept of causation in its entirety is drawn from the physical world. A large part of it seems to me to be drawn from the knowledge of ourselves as *causers*. I will that the basketball go through the hoop when I throw it; and even if I miss (as is much more likely), it is still moved by my will somehow, though with many intermediate physical causes leading to the basketball going through the hoop. I can also will myself, at least to some extent, to cause myself to think about one thing rather than another. The point that I am making is that we seem to have instances of causation that are drawn from the personal and conscious realm rather than the physical one, and that it therefore seems, at least at first glance (and before we have been corrupted by the physicalist philosophy) that the conscious mind does cause things—all of the time. It might even be argued that we get the very notion of cause as the making of things to happen, as opposed to mere regular occurrence, from our own causing.

For what is rational thought other than moving from premises to conclusions via valid or strong arguments? This again, at first glance, seems to be an entirely conscious occurrence. As argued above, if we do not hold to the unquestionable ability of human persons to reason correctly, at least some of the time, we undercut the rational justification of our beliefs, including any theory that holds that rational thought is impossible or unlikely, or at least cannot be justified. I see no good reason to think that conscious minds cannot be a cause.

It should also be noted that, in regard to what Russell said about minds not being spatially located, that this can be understood in two senses. First, in the sense that immaterial minds or souls are not extended, do not have a shape, and are not impenetrable, then he is unquestionably correct. In a second sense, however, it can be argued, minds do have a location, that is, they exist in a certain place. In the case of humans, they are located where our brains are. By this I do not mean that minds are brain shaped, or anything like that. What I mean is that the causal connection between the brain and the mind is basic, and that minds "exist in" a space wherein they are causally active.

We are dealing here not just with our human conscious minds with this issue, but also with the divine mind. However, I do not see why this would cause a problem. Looked at analogously, God has a mind, as do we, and there

seems to be no reason *a priori* why, since we know and can act on physical things, God cannot also. We can, in some sense anyway, understand that the willing of our minds can cause things to be in a certain manner; so it seems that analogously God's willing could have a similar effect.

Rundle and Russell might object that we can understand how physical entities can cause other physical entities to exist in a certain manner, but not how immaterial entities can cause physical effects. When we play pool, we see the pool stick strike one of the balls, that ball moves and strike another ball, and so on. Things like this are indeed commonplace, and since we now know the basic laws of physics, it seems that we have an understanding of the matter, at both the level of common sense and the level of science.

In answer to this objection, it should be noted that the laws of physics, or most of them anyway, seem to be logically contingent; they could be other than they are. Scientists can describe how things would have been different had some of the laws and constants of nature been other than they are. Since they are contingent, they do not have the explanation for their existence within themselves. It is therefore something of a mystery why they do obtain in actuality. For example, when one pool ball is struck by another, why does not the second ball turn pink and start rotating in a counterclockwise direction? As materialist philosopher William Lycan writes regarding the interaction problem,

> I agree that the lack of a good model [of dualist interaction] is a trenchant objection and not just a prejudice. But it is hardly fatal as yet. For one thing, the lack results at least partly from the fact that we have no good theory of causality itself. The theories that have been called theories 'of causality' all seem to have been theories of different things, not of a single phenomenon with agreed-upon clear cases.[40]

This being the case, it does not seem that there is an unsolvable problem with conscious minds having a causal effect on the physical world. Though, for example, it seems contingent that when I decide to type a particular sentence, as I could have typed some other sentence or not typed at all, the same contingency also affects the entire physical universe. For, as I argued above, physical causation also seems to be shot through with contingency—the laws of physics seem to be logically contingent. We can easily conceive of a universe with the same physical laws but with a quite different collection of physical objects in it, so the ordering seems to be contingent also. It is therefore difficult to see how this particular aspect of the problem is especially a difficulty for conscious mental causation any more than it is for physical causation.

If there is a problem for dualism here, or perhaps more accurately a puzzle, it seems that there is a problem for all the different theories of consciousness and

the physical. For all theories of the mind-body problem have to explain why there are two seemingly different aspects of reality in the person, and how they relate. As was argued above, even eliminativists and reductionists should have to explain why we have the illusion of consciousness that we do. I submit that the physicalist theories of consciousness have as much of a problem of the causation between the conscious mind and the body as dualism does. The ultimate, and I have argued, inexplicable mystery for physicalism is: why does a purely physical universe produce something as different yet as inter-related as consciousness?

Still, it is an important question to ask: how could an immaterial entity (or property) causally affect the physical world? One major problem is the lack of spatiality and of physical contact between an immaterial mind or God and something physical. Again, this seems to be a matter of contingency. There seems to be nothing contradictory about there being nomological relationships between two objects, physical or not, such that they can causally affect each other, even at a distance. Indeed, though gravity is a mysterious thing, it seems to be the case that physical objects do affect each other at a distance. The EPR experiments, wherein what happens to one subatomic particle affects a related subatomic particle, even though they are widely separated, seem to show the same kind of thing.[41]

At a deeper level, as I argued above, though in some sense quite different, the physical and conscious realms of the universe are inextricably connected to each other. Consciousness exists in some manner, and in different aspects is caused by, or dependent upon, the physical. The opposite also seems to be true. As I have argued, it seems to be the very nature of consciousness to be able to comprehend the physical; therefore it is part of the nature of the physical that it can be comprehended by consciousness. Universals, and abstract objects in general, seem to be applicable to both the physical and the conscious realms. I believe that the problem of interaction is caused more by physicalist philosophy than by anything else.

What I mean is this. Materialists and naturalist philosophers take physical entities as their exemplary kind of being. Given this, it is difficult to fit immaterial entities like God or conscious minds into the picture coherently. This is one reason why these philosophies have such a difficult time with the mind-body problem; there just isn't any room for an immaterial mind within the grand story that naturalists and physicalists tell, so consciousness ends up being an unsolvable mystery or is inadequately essayed to reduce it to the physical in some way. Of course, the anti-physicalist cannot be cavalier about the whole matter; he needs to address the anti-dualist arguments and offer answers to them rather than just waving the theories away with charges of bias. I will therefore outline the major objections to dualism from a physicalist perspective, in order to show how a response may be made to them. William

Lycan, a physicalist himself, summarizes the physicalist case against dualism, especially of the substance kind, and also offers dualist responses to them. He writes,

(9.4) Immaterial Cartesian minds and ghostly non-physical events were increasingly seen to fit ill with our otherwise physical and scientific picture of the world, uncomfortably like spooks or ectoplasm themselves. They are not needed for the explanation of any publicly observable fact, for neurophysiology promises to explain the motions of our bodies in particular and to explain them completely. . . .

(9.5) Since human beings evolved over aeons, by purely physical processes of mutation and natural selection, from primitive creatures such as one-celled animals that did not have minds, it is anomalous to suppose that Mother Nature (in the form of population genetics) somehow created immaterial Cartesian minds in addition to cells and physical organs. The same point can be put in terms of the development of a single human zygote into an embryo, then a foetus, a baby and finally a child.

(9.6) If minds are immaterial and utterly non-spatial, how can they possibly interact with physical objects in space? . . . [This is the Rundle-Russell objection again.]

(9.7) In any case it does not seem that immaterial entities could cause motion consistently with any of the conservation laws of physics, such as that regarding matter-energy; physical energy would have to vanish and reappear inside human brains.[42]

The above, I believe, lays out the case against dualism with which most materialists would agree. Objection (9.6) that Lycan brings out has been dealt with, at least in part. To deal with the others I shall first make some reply to the other points that Lycan makes. Then I shall describe an alternate philosophy of reality wherein the objections are either greatly diminished, or disappear. In contradistinction to materialism, a theistic philosophy will hold answers to the above problems, as well as the problems that I have raised with materialist theories of the mind. To sum things up, Katherin Rogers simply writes, "The universe is 'mind stuff' from top to bottom."[43] With this, the large gap between the physical and the conscious is narrowed

If a substance dualist philosophy is adopted, the situation is quite different from that with materialist philosophies. For example, it seems to be the case that there is a relationship between conscious thought and physical objects at a distance. That is to say, I can think about the Andromeda Galaxy or about the existence of the Roman Empire long ago. In some sense they causally enter into my thought. I do not know about the Andromeda Galaxy directly. I learned of it from books. No matter how I came to know of it, I can analyze my knowledge of it, and perhaps deduce further facts about it from my

knowledge. That knowledge can be instrumental in further actions that I make, such as writing a paper about the Andromeda Galaxy. In other words, my knowledge of the Andromeda Galaxy, or anything else for that matter, can causally affect me.

As almost everyone agrees, there seems to be no insurmountable problem with the physical affecting the conscious mind. Why then should the opposite not be the case? Though mysterious to us, as is almost everything about the mind, there seems to me to be no reason *a priori* why conscious minds could not causally affect the physical—though the nomological structure of that causal effectiveness is doubtless logically contingent. This seems especially true when one considers that the physical and the conscious seem naturally to fit together.

There is even less of a problem for God's causal activity. After all, not only is God omnicompetent in the classical understanding, but in some *non-pantheistic* sense, everything exists in God. There is, therefore, no compelling reason to think that God could not control the physical objects that he has created and sustains in existence. As Katherin Rogers writes, "Anselm holds that the best analogy for the relationship of God to creation is to be found in the human mind as it sustains its ideas."[44] What I believe that she means by this is that God's maintaining the universe in existence is similar to a human mind's occurrently thinking something.

How do the noncausal properties of an immaterial object, or God, coherently act on spatially located physical entities? This objection will take some explanation to state clearly. David Lund puts the objection as follows,

> The problem giving rise to the objection comes into view when one considers whether there is a metaphysically possible world, W, containing two qualitatively indistinguishable subjects, S_1 and S_2, and two qualitatively indistinguishable bodies, B_1 and B_2, which are such that S_1 has (direct) causal relations (or, more specifically, causally interacts) only with B_1, and S_2 causally interacts only with B_2. If W is a metaphysically possible world (as it may well seem to be), its possibility would apparently threaten the intelligibility of a dualistic account of causal interaction. For if the causal properties of a thing are reducible to its noncausal properties (or, perhaps, supervene upon its noncausal properties without being reducible to them), then one might argue, as Sosa does, that two pairs of entities that are exactly alike in their noncausal properties cannot differ in the way in which they are causally interrelated. If Sosa is correct, then it would not be metaphysically possible for S_1 to interact only with B_1 and S_2 only with B_2, unless, of course, S_1 and S_2 are spatial entities differing in their spatial locations and

> thus in their noncausal properties. Since the dualist committed to the nonspatiality of S_1 and S_2 cannot maintain that they differ in their spatial properties, she might well be unable to acknowledge the metaphysical possibility of W even though its possibility may seem undeniable.[45]

In other words, what is it that allows the different subjects to each causally affect only one of the two identical bodies? Lund, a substance dualist, offers three responses to this problem. Two of them deny the coherence of the above supposition—that is, to deny that there is a metaphysically possible world such as that described above. The third argument that Lund puts forth is to defend the notion that there could be restricted scope covering laws, wherein one subject is paired with one body, even if that body is identical with some other body. That is, "There is, then, a set of scope-restricted covering laws that would secure the causal linkage between events in S_1's mind and events in B_1's brain, and a different set securing the causal linkage between events in S_2's mind and B_2's brain."[46] This link would be between the one brain and the one mind interacting with it. This would be especially true in an Emergentist dualist theory of the mind, wherein the soul emerges from the brain.

This last argument seems sound to me. There is an analogy from knowledge. Even were it the case that there were identical subjects and identical bodies in the universe, as Lund describes, it is still possible for a subject to have knowledge of only one of the bodies. That is, suppose that S_1, S_2, B_1, and B_2 exist as Lund puts forth in the scenario above. It seems that it could easily be true that S_1, for instance, could know about the existence and nature of B_1, while not knowing of the existence of B_2. Were this the case, then S_1, when thinking about B_1, would be concentrating on it, and knowing it exclusively, even though B_2 is identical with B_1. That is, there would be a relationship between S_1 and B_1, but no such relationship between S_1 and B_2. The same could, of course, be said about S_2 and B_2. This being the case, since there are exclusive knowledge relationships between the subjects and the bodies, it seems to be at least logically possible that there also be an exclusive causal relation between one of the subjects and one of the bodies.

By analogy, there does not seem to be any problem intrinsically with a conscious mind's being directed toward just one brain rather than all brains—to be causally effective on, and from just one's own brain and body and not from anyone else's. Though this is obviously a different kind of directedness than intentional thinking about an object, they are, nonetheless, similar in the sense that they are both consciousness directed to one physical entity rather than to all. A gravitational field must affect all objects within a certain area and distance from its source. Actually, it affects all objects within the entire universe—the gravitational force between two objects just decreases exponentially as the objects

are separated (so that beyond a certain distance the force is negligible). A conscious mind need not do so, nor does it usually act in that manner.

Here a problem that I raised in chapter three is relevant, that of matter seemingly being composed only of ***dispositional properties***. However, the same does not seem to be true of the conscious self. That is, we do have more than just dispositional properties. When the mind is actively involved in some task, such as grasping a concept, it understands that concept. The understanding of that concept is not merely dispositional; it is the *actual* conscious understanding of the concept by the mind. Further, just the having of consciousness is not itself dispositional; the mind possessing consciousness is an object, albeit an immaterial one, in and of itself. Given that these arguments are sound, phenomenally conscious minds can exist on their own, while matter cannot. Of course, by "mind", I primarily mean God's mind.

Further, theism solves the problem of how physical entities can exist with purely dispositional properties. The reason is that, given theism, they exist primarily for God, who creates and sustains them in existence—and they exist secondarily for finite minds, with whom the physical entities interact. The physical entities' dispositions are for minds—primarily God's, but also minds existing in the universe.

The next problem to be dealt with is that of ***energy flow***. If a conscious mind can causally interact with its brain, then doesn't this require a flow of energy to and from the mind to the brain, which would thus violate the first law of thermodynamics? There are several possible solutions. One is to say that yes, the first law really is violated, though only to a very small extent, possibly to such a small extent that it is very difficult if not impossible for us to measure. This may be the case, though there may be something dissatisfying about this answer.

However, it should be noted that conservation of energy is only valid within a closed system. That is to say, it is true only within a system that is not receiving energy from an external source. If the "world" of phenomenal consciousness can indeed impinge on physical entities, then the physical realm is not a closed system, and the law of the conservation of energy does not apply to it. Granting this, there is no reason to think that dualist interaction breaks the law.

Perhaps a better way of thinking about it is that the physical universe, with its system of laws, is really just a part of a larger system of laws involving conscious minds, the brain, and the laws that include the nature of their interaction. If this were to be the case, then there would be no violation in a larger sense, for the first law of thermodynamics would just be a sub-law, or a particular application of some higher law. This higher law would be one that would regulate the interaction not only of the physical with the physical, but with the other realm of being, that of the consciousness, and the selves who

have consciousness. This is, of course, merely a suggestion that would have to be filled out to be made plausible, but perhaps a complete science would include higher laws such as that.

Another possibility brought out by several philosophers makes use of quantum physics.[47] Since some variants of quantum mechanics hold that there are quantum phenomena that are genuinely indeterminate and that sub-atomic particles can go in more than one way without breaking any laws, it may be the case that the conscious mind works causally on the brain by affecting quantum phenomena to collapse in one way rather than another. If this be the case, then the conscious mind in mind-body dualism could affect the brain without there being any violation of the second law of thermodynamics. Stephen Barr argues that according to traditional theory, which he defends, it is consciousness that causes quantum collapse. He writes,

> In short, the observer cannot be considered part of the system that is being physically described and remain the observer of it. Just as you cannot be in the movie and watch it at the same time, you cannot be entirely part of the system and observe it too. You cannot be described completely by the wavefunction and also collapse it. In traditional quantum theory one is led to the following fundamental conclusion: *The mathematical descriptions of the physical world given to us by quantum theory presuppose the existence of observers who lie outside those mathematical descriptions*.[48]

If this is the case, then the conscious and the physical are inextricably tied together, and there is not a violation of the second law. Of course, this depends upon one interpretation of quantum mechanics and is highly controversial, but that does not mean that it should be ruled out *a priori*.

Further, it can be argued that in fact we do have empirical evidence that the conscious mind can causally affect the brain. Though controversial, as is just about everything in this field, Jeffrey Schwartz gives the evidence of how just thinking about things can alter the neuronal pathways in the brain. He writes regarding the mainstream approach that consciousness per se cannot affect the brain, and his own findings which contradict this,

> Epiphenomenalism is a perfectly respectable, mainstream neurobiological stance. But it denies that the awareness of a conscious experience can alter the physical brain activity that gives rise to it. As a result, it seemed to me, epiphenomenalism fails woefully to account for the results I was getting: namely, that a change in the valuation a person ascribes to a bunch of those electrochemical signals can not only alter them in the moment but lead to such

> enduring changes in cerebral metabolic activity that the brain's circuits are essentially remodeled. That, of course, is what PET scans of OCD patients showed.[49]

Finally, there is a legitimate question as to whether or not the first law of thermodynamics is really true—strange though that may be to hear. Robin Collins argues that physicists have abandoned the principle, at least in its relevant formulation, around one hundred years ago. He writes,

> The energy-conservation objection against interactionistic dualism fails when one considers the fact that energy conservation is not a universally applicable principle in physics and that quantum mechanics sets a precedent for interaction (or at least law-like correlation) without any sort of energy-momentum exchange, or even any intermediate carrier.[50]

Bell's theorem also seems to negate the validity of the law of the conservation of energy, specifically within the area of quantum physics. This theorem, which has been experientially validated many times, shows that there are interactions between particles at a distance that cannot be explained by local causation. This being the case, there are correlations, actions that are non-local that cannot be explained by energy transfer, and thus, the law of the conservation of energy does not obtain.

The basic reason that energy is not conserved and does not universally apply to special relativity is because there is no preferred frame of reference. Different frames of reference will show different amounts of energy in the same situation. This means that in a particular situation, wherein the energy of some material object is being measured, there is no one privileged frame of reference, all of these frames being equally valid. Since the different frames of reference will show different amounts of energy, one cannot meaningfully speak about the energy involved in that specific situation because there is no intrinsic, non-relational amount of energy.

With general relativity, the problem is more complex, but somewhat similar As Robert Wald states, "In general relativity there exists no meaningful local expression for gravitational stress-energy and thus there is no meaningful local energy conservation law which leads to a statement of energy conservation."[51] Again, since energy cannot be precisely determined, there is no meaningful law of the conservation of energy.

Thus, I do not see that there is any insurmountable problem with either God or immaterial minds or selves being causes. Materialists have a problem here because they start with a model of causation drawn from the physical. This distorts the manner in which immaterial conscious beings could operate, because they are quite different kinds of beings.

9.4 A Unified Solution—Phenomenology and Theism

There is one objection to Lycan's theories remaining—that of how immaterial minds could have arisen from a purely materialistic, chance mutation, version of evolution. Again, I think that the problem mainly comes from the adoption of a naturalist and physicalist worldview. Given a theistic philosophy or worldview, the whole problem becomes much easier to deal with, as we will now see.

The solution to all of the issues discussed so far is that abstract entities are essentially ideal objects, and thus are essentially objects for and of minds. I have already discussed the ontological status of possible worlds. It would thus seem to be a consistent move to say that all ideal objects have the same ontological status. If, as stated, ideal objects are things that must essentially subsist in minds, there must therefore be a mind in which they subsist. As we, or any other finite beings, cannot hold all of them, they must exist for, and subsist in, an infinite being, God. Therefore, all ideal objects subsist in God's mind, as he eternally thinks all of the ideal objects, giving them their being. Since God is transcendent, so are the ideal objects.

I am not here arguing directly for God's existence, though I think an argument for that could be constructed from the concept of ideal objects.[52] Rather, what I am doing here is proposing a model of how reality can be and I am attempting to show that this model answers questions that other theories—specifically naturalism and physicalism—cannot. Thus, this and the following considerations could be thought of as an indirect argument for theism.

How are our minds able to grasp ideal objects? This is perhaps the most difficult problem for the realist regarding abstracta. In fact, the problem is wider than merely the understanding of abstract entities. In understanding physical objects, we also necessarily grasp the properties that they have. Properties are universals, and given realism, are essentially abstracta. So, to understand the nature of physical entities necessarily involves understanding the nature of abstract entities. My answer is this: our minds are made in the image of God's; they are finite analogs of God's mind.

Minds are essentially things that are made to know and ponder truths; that is what they do, or at least a large part of what they do. It is not that our minds have to reach out to some transcendental universe in order to grasp abstracta. In a very real sense, abstracta exist in the same world that we do.[53] Minds are things that have essentially the power to grasp abstracta by their very nature. When knowing abstract entities, we know them as ideal objects, because that is what they essentially are—in nature they are irreal objects in the mind of God. Arguably, this view has been held by Aristotle, St. Augustine, and Leibniz, among others. To quote St. Augustine, "But we ought rather to believe, that the intellectual mind is so formed in its nature as to see these

things, which by the disposition of the creator are subjoined to things intelligible in a natural order, by a sort of incorporeal light of an unique kind; as the eye of the flesh sees things adjacent to itself in this bodily light, of which light it is made to be receptive, and adapted to it."[54]

Augustine is famous for his idea that God is the light that shines upon the forms so that our minds can grasp them. Ronald Nash gives what he thinks is the most likely and plausible interpretation of what Augustine meant regarding the form—or what I have called ideal objects. He writes,

> This is taken to mean that God has endowed man with a structure of rationality patterned after the divine ideas in His own mind. Man can know truth because God has made man like Himself. If this claim is true, it helps to explain how man can know not only the eternal forms but also the creation that is patterned after these forms. Man can know the corporeal world only because he first knows and understands the intelligible world. Man possesses as an inherent part of his nature forms of thought by which he knows and judges sensible things.[55]

Nash argues the following: human beings possess the forms, or ideal objects, only "virtually," or potentially. That is, we possess them in the sense that we can grasp them, though they may not be part of our consciousness at the moment. We become aware of them mainly or, some would argue, entirely through sense perception. Exposure to the external world "awakens" in some sense the ideal objects. Our minds can do this because God has made our minds to be finite analogs of his divine mind. Minds know things, because that is the kind of things that they are; minds are the kinds of entities that know things. While God's mind is infinite, ours are only finite. Our rational minds go on to grasp the nature of the ideal objects. Or, as Robert Adams writes,

> And that opens the way for another explanation of our knowledge of necessary truths: an explanation in terms of divine illumination. Suppose that necessary truths do determine and explain facts about the real world. If God of his very nature knows the necessary truths, and if he has created us, he could have constructed us in such a way that we would at least commonly recognize necessary truths as necessary. In this way there would be a causal connection between what is necessarily true about real objects and our believing it to be necessarily true about them. It would not be an incredible accident or an inexplicable mystery that our beliefs agreed with the objects in this.[56]

The objection might be raised that this commits us to the supposedly refuted notion that there are inborn ideas. Assuming that the philosophical

concept of inborn ideas has really been refuted, I do not think that by accepting Augustine's theory we are committed to anything harmful. One does not have to hold, for instance, that we are born knowing, for example, that Target is cheaper than Wal-Mart, or vice versa, or any other proposition. Rather, it is simply the fact that our minds are constructed in a certain manner such that we have the inborn ability to recognize and grasp different ideal objects. We *can* compare and come to know the truth of various propositions; we do have the inborn ability to grasp comparisons.

Further, we possess the ability to reason our way from the knowledge of some truths to other truths. As God knows everything in their necessary and logical connections, so also our minds can reason using the same necessary and logical connections to derive truths from other truths. This rational intuition, which Husserl called eidetic intuition,[57] is the thing that our minds do when they think God's thoughts after him. How the physical mechanics of all of this works, is, of course, a great mystery, as the mind is at once the thing most familiar to us, and also the thing that is the most difficult to understand.

It should also be noted that the theory given here explains why we have the same thoughts, that is, can think the same things. To put things simply, since all of our minds are made in God's image, as finite analogs of God's mind, we can think the same things as he does and the same things that other human beings do. God knows them eternally, we know them for a time; God is never mistaken, while we sometimes are; God sees things in all of their relationships, while we do not. Still, when God or anyone else thinks of the number three, they think of the same number three.

A further point can be mentioned here. One of the defining characteristics of abstract entities that is frequently held is that they are acausal. That is, they do not enter into causal relationships. This seems puzzling, for if they are acausal, how can human and other finite minds be aware of them? How can they be instantiated in physical objects, if they are acausal? Further, since many philosophers think that having causal power is the mark of the real, how can they *lack* causal power and be real? Thinking of them as ideal objects existing primarily in the mind of God solves these problems, or at least provides a way of finding a solution.

If God knows the ideal objects—and in theism they are considered to necessarily subsist in the mind of God—then there is no problem using them when creating the physical world. The physical world is a possible world that is actualized. It exists eternally as a thought in the mind of God, and therefore can be actualized by an act of God's will. Actualization means creating a universe modeled after the ideal concept of that possible world.

Further, if thought of as ideal objects, they can affect human and other finite minds also. For example, if an architect wishes to construct a building, some of the tools that he will use are various mathematical equations. In the

theory given, these equations are eternally thought by God. Since our minds are made in the image of God, they can also think some of the ideal objects that God thinks, including these equations. Using the equations, the architect makes creating the buildings possible. In a sense then, as ideal objects in the architect's mind, they are causally effective because, acting on the mind of the architect, they are then used to construct the building.

It might be asked if adopting this theory commits one to idealism. The answer may be yes, but if so, it is a harmless variety of idealism. Katherin Rogers writes,

> Theistic idealism is quite congenial to the most robust scientific realism, the view that the explanatory laws, principles and objects which are posited by the scientist to explain the observed behavior of 'middle sized' objects have objective existence. . . . All that the theistic idealist denies is that there is some underlying matter like Aristotle's prime matter or Locke's substance which is in principle imperceptible and unthinkable. If all contingent being exists because it is thought by God then if something is by definition inconceivable (*simpliciter*, that is, inconceivable by anyone including God) then it cannot exist.[58]

Only that which can be thought by God or anyone else can be real, and to be thinkable is to be intelligible. Only the intelligible is real. The only thing that I would add to Roger's account is that the universe that God creates is not just thought, but also the product of will. God wills that one world is instantiated, while others, which are just as intelligible, are not. Were reality to be equivalent to being thought of by God, then everything thinkable would be real. This position has been adopted by John Leslie,[59] but it leads to the impersonalization of God, and must be rejected by classical or traditional theists.

If it is objected that this leads to the world as being unreal, something just in our minds, it should be answered that this does not follow from the premises. It may be true of some forms of idealism, but not this one. Rogers writes, "God creates beings genuinely external to the limited perceiver by His own thinking. I perceive the tree *because* it exists, and not vice versa, and the tree exists so long as God is thinking it whether or not I or any finite mind ever perceives it."[60] This version of theistic idealism, or phenomenology as it would perhaps be better to call it, does not at all deny the existence of the world external to our own finite minds.[61]

Another advantage of this theory is that it ties all of the parts of reality together. God exists eternally, with all conceivable thoughts existing eternally in his mind. Included in these are thoughts about the infinite number of possible worlds that could have been actualized—or, in one case, was actualized. For reasons best known to himself, God chooses to actualize a possible world,

which is our world, though possibly with many universes included in our possible world. Finite minds, such as ours, being made in the image of God's mind, can know some of what exists. Both physical objects and conscious minds are therefore modeled after ideal objects. Phenomenal objects that exist in finite minds like those of humans (and presumably those of at least the higher animals) are also modeled after ideal objects.

This view has not gone uncriticised. Kant, in writing on a closely related matter, states, "A middle course may be proposed between the two above mentioned, namely, that the categories . . . [are] but subjective dispositions of thought, implanted in us from the first moment of our existence, and so ordered by our Creator that their employment is in complete harmony with the laws of nature in accordance with which experience proceeds…"[62] In the above, Kant is discussing the categories of thought that he posits as an explanation of knowledge.

Although I have been concentrating on ideal objects, the categories of thought would also have to be, in the theory that I am propounding, ways in which God thinks about things, and hence, ways in which our minds have been constructed to think about things. Kant rejects this, but his reason seems quite inadequate to me. He puts forth two objections. First that giving a theistic explanation of the match of mind and world sacrifices the necessity of judgments, as he thinks that it would be an "arbitrary subjective necessity."

This seems to be obviously false. Given classical theism, God is an omnicompetent being and what he does is not arbitrary. If God puts certain categories of thought in our minds, it is because they in some way match the way that God thinks about things—and thus have their own necessity. It is, on the contrary, Kant's theory that reduces necessity to arbitrary subjectivity—for on his view, we do not know the things in themselves; we only know the way that our minds present them to us. Here, theism seems to be by far a better theory than Kant's, even apart from the fact that the theistic theory enables one to actually know the things in themselves.[63]

The alternative to all of this is some naturalistic theory of the mind, usually conceived as a physicalist theory. As I have argued and will argue, it is difficult for naturalism and physicalism to account for any of the above concepts. These difficulties include:

* Why one possible world is instantiated rather than all the rest;
* Why this possible world is orderly;
* Why there exist phenomenal aspects;
* Why and how the ideal aspects are instantiated; and
* How the human mind can grasp ideal objects.

First, naturalism cannot provide a coherent account of why this possible world is instantiated and why it is an orderly world. If this world's existence is

logically contingent, as it certainly seems to be, then since, on naturalism, there is no cause of it, its existence is a brute fact, and its orderliness is inexplicable. I have already argued this point at length in another book.[64] One alternative thought open to the naturalist is to adopt something like David Lewis's "All possible worlds are actual" theory. For the reasons that were given above, and others, this avenue also seems very implausible at best. For one thing, since on it all worlds are instantiated, it would be the case that there would be universes like our own that were orderly up until three minutes ago that then became chaotic in various ways, and that these chaotic universes would far outnumber those that remained stable.

Second, in naturalism—especially in physicalism—there seems to be no explanation of why there are phenomenal aspects of the mind. By the phenomenal aspects, I mean things like qualia, and "raw feels" that we experience when, for example, we contemplate the truth of some proposition, or else believe it, desire it to be true, fear it to be true, are mystified by it, etc. Why do these things exist at all in a naturalistic, physicalist world? I have already dealt at length with this problem for physicalism in the chapters above.

Further, given naturalism and physicalism, there is the problem of why consciousness can grasp the existence of, and the relationship of, physical and phenomenal objects. The major point here is that theism is a personalist theory. In theism, a personal being, God, is ontologically ultimate. So, it is not surprising that persons exist, and so also aspects of reality associated with persons, like the phenomenal aspects of the mind—since on theism, God is personal, and we are made like him. In naturalism and physicalism, persons are neither the original nor the most fundamental parts of reality; rather, they are a rather strange phenomenon that somehow emerges from the physical universe during its endless, mindless, purposeless evolution.

In short, the existence of persons and phenomenal objects is naturally explicable in theism, but is difficult to fit into naturalism and physicalism. Why they exist and have the powers that they do, does not follow from naturalism and physicalism. In fact, it is even difficult to understand how they exist and how they could have arisen in the first place. This deals with the second objection that Lycan brought out: how could immaterial minds arise from a purely physical unguided process? The answer is, given theism, they didn't.

Third, theism has an explanation as to why there are abstracta or ideal objects. Again, in theism, with its most basic reality being the infinite person of God, there is a reason why there are ideal objects and why they are related to the physical universe. One can also see how they can be instantiated in physical things. In naturalism and physicalism, on the other hand, it is harder to see why they exist. It seems like a consistent physicalism would have no room for anything except physical objects. However, since several physicalists argue that their position is compatible with the existence of abstract entities, I will

accept that it is compatible. Still, given physicalism, it is much harder to see how abstract entities could be related to the physical world, or how the human or other finite minds could know them. In physicalism there is no bridge between the different realms of being.

The fundamental problem here is that, as stated, abstracta are eternal, necessarily existing, changeless, non-spatiotemporal, and generally held to be acausal in themselves. The physical aspects of the world, on the other hand, are temporary, change constantly, exist in space and time, and are involved in physical causal relations. The relationship between the physical and the abstract is therefore difficult to understand. Even worse is the problem of how, if minds are purely physical entities, they can even understand abstract entities. Given that God's mind contains all thought, and our minds are finite analogs of God's, it can be seen why the whole matter is so complex, and yet how our minds can know things. If, on the other hand, all that our minds are, are the firing of neurons in the brain in various patterns, how then may they grasp the reality and nature of the abstracta and their relation to the physical world? Given their very nature as tiny physical objects, how can neurons 'grasp' anything under any circumstances? Whence cometh the marvelous complexity that is involved in our becoming consciously aware of the universe around us?

Edward Feser writes about this relationship between materialism and the existence of abstracta, specifically mathematical objects,

> Among philosophers, mathematics has long been the paradigm of knowledge that is absolutely certain, and that is because the truths of mathematics are *necessary* truths, true in all possible worlds. For this reason, it seems clear that these truths cannot be truths about anything either mental or material: facts about the mental are facts about a subjective realm, but mathematics is objectively true, utterly independent of human interests; facts about the material world are facts about a realm that is constantly in flux, a domain of contingency, but mathematical facts are unchanging and eternal.[65]

Though Feser is speaking about the existence of abstracta being reduced to the material, I think that an even stronger argument can be made that there is a great difficulty for the physicalist in accounting for our knowledge of abstract entities. As he states, the physical, including the brain and the nervous system, are in constant flux. They essentially are material things moving around and changing in various ways. How can something that is essentially changing grasp the existence and nature of abstract entities? How can a pattern of neurons firing, no matter how numerous, be in any sense the same as a thought about a complex geometrical form? Not only is the brain in flux, but also none of any of the collections of the neurons in any pattern in the brain

can duplicate the geometrical form which is being perceived and/or conceived. How then does the brain grasp it?

The dualist has a different answer. When we think of a circle, though the circumstances regarding the circle may be quite different, and the aspects of the circle about which we are thinking may differ, the circle, the object of thought, is inherently the same.

I conclude that in physicalism, and especially in any reductionist form of physicalism, there is no apparent way that the brain can reach and understand abstracta, whatever abstracta ultimately are. This problem becomes even worse when it is realized that physical objects themselves are in a sense made of abstract entities. That is, there is a particular universal of blue in a book and that blue is also a universal that can be instantiated in countless other things. So, in recognizing that the book is blue, one is not only recognizing that that particular physical entity is blue, but one also is recognizing the concept of blueness. For this reason, as well as for the reasons given above, it is not even obvious that the physicalist can account for knowledge of *physical* things. Given some form of nominalism, there is still the exact similarity relationship between the different blue things—and it is difficult to see how the physicalist could grasp that universal.

Fourth, in theism, there is a coherent account of why human minds exist and why they are able to understand reality. Human minds are finite copies of God's mind. Since God is that in which ideal objects subsist, and the creator of both physical objects and minds, there is a unity between the different aspects of reality. That is why they all fit neatly together—because God is rational and good and he made the universe to be intelligible to the creatures living in it. In naturalism there is no such unity of the different kinds of existents or realms of being. If abstract entities are postulated to exist given naturalism, there is no causal connection between them and the physical world.

According to physicalism, there were no conscious minds or phenomenal aspects of reality at all for billions of years after the universe began. Then somehow, not only mysteriously, but also forever inexplicably as a sheer brute fact, the phenomenal popped into existence—a genuine novelty in the universe. This does not seem to be logically impossible on the face of it, but it leaves all explanations for everything very ad hoc. The existence of mind becomes inexplicable, not only how it came into existence, but why our thoughts have anything to do with physical reality, since on most physicalist theories the phenomenal as such is acausal and therefore useless.

The point of all the above discussion is that theistic dualism has a great deal of coherence and explanatory power regarding basic metaphysical issues, while naturalism and physicalism have little of either. Indeed, it is difficult to think of things that naturalism and physicalism can really explain from a metaphysical viewpoint. They posit brute fact nature and matter and the laws that

govern their behavior as the ultimate, and then they try to describe another kind of being—consciousness—in terms of them.

Everything that naturalist and physicalist theories do explain really are matters relating to the natural sciences. Theism can explain these just as well. For example, if in naturalism, one can explain how atoms or the physical brain work in purely physical terms, theism can explain all this just as well. There is no inherent contradiction between theism and the working of physical objects according to natural laws. The modern concept of strict natural law came out of the theistic Middle Ages. Indeed, theism can give an explanation as to why physical objects follow the natural laws, that naturalists ultimately cannot.[66] For example, consider *events* in their ontological nature. Several different philosophers, such as Lawrence Lombard and Helen Steward, have proposed theories of the nature of events.[67] Whatever the ultimate truth of the real ontological nature of events, there seems to be no real reason as to why a theist could not adopt it as well as a naturalist. Suppose, for example, that Lombard's theory, that an event is a change in some situation, is the correct theory of events. There seems to be no good reason why it favors naturalism rather than theism.

The same is true for physics. There seem to be few theories of physics that are not acceptable to theism per se. For example, both the Big Bang and the Steady State models of the universe seem to be coherent with simple theism, though perhaps not with every version of theism. The same goes for relativity, quantum mechanics, quarks, strings, multiverses, etc.[68] There seems to be no reason *a priori* why theism as such cannot adopt these theories as well as naturalism can. This being the case, physics, or at least some of it, is neutral between naturalism and theism. In some areas, such as the anthropic principle, it seems to me that theism has the edge.[69]

While *perhaps* naturalism and theism have equal explanatory value and coherence at the level of *physics* regarding some matters, it seems to me that theism has a vast advantage over naturalism at the level of *metaphysics*. At a metaphysical level, I believe that naturalism *as* naturalism has fundamentally no explanatory value or coherence. Rather, the popularity of naturalism has come mainly from its identification with the natural sciences. Naturalism is sometimes thought to be equivalent to the acceptance of the natural sciences as they are. Such identification is a category mistake, for naturalism, by itself, is a metaphysical position rather than a scientific one, even though metaphysically it is explanatorily quite empty. I hold then, that what the situation really is, is that *naturalism* is not a coherent metaphysical position, but *is rather an attempt to replace metaphysics with physics*.

Naturalism has no theory of being as such, but only of particular kinds of being—physical entities, properties, and events. Since it cannot reach back to anything more fundamental than those kinds of being, it can only try to explain

existence, that which exists or might exist, in terms of these physical beings. The existence of physical beings is, given naturalism, usually considered to be a brute fact. Their *existence simpliciter* and their continued existence over time is inexplicable given naturalism. For given naturalism, there is no way in which they are self-explanatory and there is no concrete entity that is more fundamental in which they can be explained.

On theism, by contrast, given that God exists as a necessary being, existing in all possible worlds, all of reality can be tied together. To summarize:

* God exists out of his own necessity,
* Abstracta are ideal objects in the mind of God,
* Both physical entities and conscious ones exist because God created them, and
* The physical and conscious entities work together because God, being rational, good, and omnicompetent, has created the world so that they do, and finite minds are analogs of God's infinite one.
* Intelligibility is the fact that the universe is the instantiation of divine ideas, and therefore the product of a rational mind, and thus knowable to rational minds.

Therefore, the whole system is unified.

The difficulties that naturalist theories face also include the other kinds of being: consciousness and abstracta. We have already seen the difficulties that naturalism has with abstracta, especially possible worlds. Given naturalism and physicalism, there is no way in which the existence of such entities as consciousness minds can be explained, because of the lack of relevant bridge concepts between the two realms of being. The existence of consciousness is thus also a brute fact and its relationship to the physical also so. This is the reason that so many physicalists have attempted to reduce or eliminate consciousness. Given physicalism, existence of consciousness as some sort of misconstrued or illusory physical items again is inexplicable. Why should even the illusion of such a category of being exist, and how can illusions as such exist without their existing consciousness?

Naturalism is thus by itself not a coherent or complete metaphysical position, and by its very nature it cannot answer fundamental questions. This is especially true of physicalist naturalism, wherein concrete reality is usually held to be the brute fact existence of physical entities, properties, and events. Since these exist for no reason, given physicalist naturalism, it is not surprising that the physicalist naturalist cannot give an explanation as to why anything in his system is the way that it is. In this view, concrete reality is ultimately a brute fact, and the way that every entity in it is arranged and put together in the system is merely a brute fact also. There will be no explanation forthcoming, because there *cannot* be an explanation. The only thing that is

necessary in the system is that entailed by the fundamental laws of logic, as they are necessary in every system.

Given the above, perhaps it would be better to consider naturalism to be a research program. According to Michael Rea, "a *research program* is a set of methodological dispositions."[70] This description seems to fit naturalism better than that of a complete worldview. Naturalists and physicalists approach reality from the point of view that everything must be made to fit into the view that what is ultimate is mindless matter in motion—and (with the possible exception of abstracta) that that is all there is. By doing this, they adopt a view that cannot, by its very nature, give ultimate reasons as to why things are the way that they are.

In a sense then, I think that to hold that naturalism should be considered as a metaphysical system is a category mistake. It is, rather, essentially an attempt to make the natural sciences into a worldview—which they cannot be. Naturalism cannot, by its very nature, explain either intelligibility in things, or the understanding of them.

In contrast, if we adopt the stance that *being* is essentially intelligible, then anything positive that naturalism has to offer can be had, and the problems of naturalism avoided. Natural and physical entities would still be intelligible, and thus understandable. There is no such thing as matter, if matter is understood as something that is intrinsically unknowable.

Rather, the natural and the physical are just parts of the broader realm of reality, in which being is that which is intelligible and therefore understandable, at least to God if not to us. *Being* exists in several different manners—abstract, physical, and phenomenal. Everything that exists or could exist is inter-related in the web of intelligibility. What actually exists depends upon the divine will, and thus all reality is traced back to one source. Thus, in contradistinction to naturalism, theism is a full-fledged metaphysical theory; a theory that unlike naturalism, can explain reality as it actually exists.