NATURE, GOD, AND CREATION: A NECESSITARIAN CASE

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To my love Sümeyye,

Without whose never-ending energy and inspiration, this dissertation would have never existed. She refreshed my mind and soul every day even though I was very often absent from home to complete this. If this dissertation makes any significant contribution to academy, my fellows should be thankful to her. As I always will be.

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The theistic doctrine of creation highlights the significance of the world's dependence on God. For this doctrine, a variety of justifications have been offered based on the ontological and epistemological commitments of a philosopher or theologian. In this dissertation, I defend the thesis that the theistic doctrine of creation is strongly justified when on the one hand the integrity of nature is established by affirming causal necessity while on the other hand the sovereignty of God is maintained by affirming divine simplicity, eternity, and immutability. To construct my argument, in the first chapter, I examine the Aristotelian roots of causal necessity and its development by Avicenna. I also consider objections to causal necessity raised by Hume and al-Ghazālī and some contemporary objections by David Lewis. In the second chapter, I identify three competing theses to explain the integrity of nature, namely, the regularism, the extrinsic necessitarianism, and the intrinsic necessitarianism. I conclude that the intrinsic necessitarianism is the strongest among them. In the third chapter, I make a case for the sovereignty of God by exploring the limits of the concept of the theistic God and claim that sovereignty is conditional on immutability, simplicity, and eternity, which qualify the divine attributes of knowledge, power, and goodness. In the last chapter, after analyzing strengths and weaknesses of theistic accounts of creation, I propose an account of ontological dependence by extending Avicenna's account of creation, which consists in God's conferral of existence, to His sustaining activity at all times during which an object endures.

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Introduction

This is a dissertation thesis in the field of philosophical theology. It is about God; hence it is theology, and this God is the god of theism. It is philosophical. By this, I mean, in what follows, I am not going to appeal any text which is believed to have religious authority. It is based on premises that can be accepted or refused by anyone regardless of their religious commitment. Thus, my arguments are intended to be philosophical, which makes them open to further analytical criticism.

In this dissertation, I am studying the accounts of creation and causation because I want to find out how God is related to the world in order to help my reader understand what the doctrine of creation would mean. My discussion of contending views on the relationship between God and the world inevitably considers the nature of causation. A number of questions arise concerning the compatibility of the concept of God with causation in the natural order. Other questions involve the coherence of the concept of God as creator, having to do with how an incorporeal and eternal being acts in the space-time reality.

Metaphysical commitments about reality and the efficacy of objects in nature play a significant role in characterizing the relationship between God and nature. Regarding nature, my dissertation is committed to scientific realism; the belief that interactions in nature are real. Regarding God, I do not attempt to prove there is God. Even though they are closely linked, I think, the question of the existence of God and the hypothetical question concerning how God is related to nature *if* He

exists can be investigated separately. I am particularly concerned with the latter question.

In modern philosophy of religion, one of the biggest challenges to belief in the God of theism is considered to be establishing His absolute sovereignty. Creation ex nihilo is a theistic doctrine about the origin of the world. In general terms, it proposes that the world is the product of God. On the other hand, in scientific understanding, it is affirmed that the world is governed and sustained by laws of nature. Here we can identify fundamental and related problems.

The God of theism is believed to have an all-encompassing knowledge of and unlimited power over the world. Correlated to this belief is that God must know about and have power over all changes in the world. This correlation is challenged by our seemingly efficient ability to explain the change in the world by assigning causal relationships between objects and exploring the laws of nature. If the world is governed by laws of nature, what could the role of God's action in the ordinary course of nature be? If there is no action we can attribute to God in the production of the world, is it still reasonable to talk about a creator God? If the world is governed and sustained completely by laws, would God's action be superfluous? On the other hand, it is also possible to attribute all the features of the world, including change, to God's creative power alone. But if this is true, what would be the use of science? If divine action provides sufficient reason for any change in nature, there is no explanatory room left for laws of nature. Can it be argued that both God and laws of nature are effective in the production of the world? Or, can it be assumed that there is a division of labor between God and laws of nature? If a kind of metaphysical

collaboration is proposed, would God in this proposal still be the god of theism? What is really at stake here is that whether one will have to sacrifice either God's active involvement or the lawful structure of nature in favor of the other.

The problem of creation is important in many ways. From popular discussions about evolution and creation to religious discourse on God's involvement in evil in the world, it is easy to see the tension between the absolute power that is attributed to God and the powers observed in the ordinary course of nature. The general tendency seems to be choosing one at the expense of the other. If the powers of nature are favored, it is believed that God's sovereignty loses a large rational ground. On the other hand, if the problem of creation is simply ignored by the philosopher, the result would be destructive from an intellectual point of view. If philosophy seeks answers to the questions related to the reality of the world, limiting oneself to what is explainable by empirical science will be nothing more than scientific dogmatism. If the philosopher's core objective is to explain the world, nothing should be considered to be beyond the limits of speculation. Thus, a proposal for the origin of the world and its fundamental structure must interest the philosopher in his intellectual journey into reality.

In this dissertation, I argue that creation ex nihilo and natural explanation are compatible and complementary for understanding the world. As a metaphysical explanation for the existence of the world, the concept of creation ex nihilo does not conflict with the scientific realist view that nature is an integral whole which consists in causally necessary structures. However, it is vitally important to identify what the creation ex nihilo thesis consists in. I propose that God's conferring of

existence and His sustenance of all necessary and contingent structures are sufficient to explain how God creates the world. In this way, I also propose that the causal necessity observed in nature does not pose any challenge to the sovereignty of God as described above. This proposal will simply be referred to as the Ontological Dependence account. Discussing strengths and weaknesses of the Ontological Dependence account, I conclude that creation ex nihilo is an explanatory model for the entirety of the world and complements the very idea of intelligibility, an idea which science, ancient or modern, takes it for granted and builds upon. In this sense, it is argued that causal explanation reveals what is in nature on the existential ground provided by creation ex nihilo.

In the first chapter, I take the task of investigating the concept of nature. This investigation involves evaluating different approaches to causation. The main objective in this chapter is to reveal whether we can determine if there is causal necessity in nature and, if there is, how we can know about it. After the Aristotelian roots and its Avicennan developments are explored, some objections to causal necessity offered by Hume and al-Ghazālī are considered. In conclusion, I defend the thesis that Aristotle's and Avicenna's arguments for causal necessity are not undermined by their opponents.

In the second chapter, based on the outlook we gained from the first chapter, I make a case for the intrinsic necessity view of nature which suggests that the integrity of nature can best be accounted by the existence of causal necessity grounded in the natures of objects. I discuss the alternative views of regularism and

the extrinsic necessarianism and conclude that both fall short of explaining nature's regular and uniform operation.

The focus of the third chapter is the coherence of the concept of God. Specifically, I explore the aseity and sovereignty features of the concept of God. I argue that if the aseity features -namely simplicity, eternity, and immutability- are successfully applied to the sovereignty features -namely omnipotence, omniscience, and omnibenevolence- the result is that God's sovereignty encompasses everything other than Himself, including all eternal and temporal beings. In this chapter, I try contend with some significant objections to specific attributes of God in order to show that the concept of God is coherent and powerful enough to justify the sovereignty of God.

In the fourth chapter, I explore various conceptions of the God-world relationship. To make my position clear, initially I contrast the theistic view of creation ex nihilo with ones that propose a concept of God who is not the ultimate source of everything. Plato's Demiurge and Aristotle's Prime Mover are distinguished from the God of theism on the grounds that neither is related to the world in a unique way. For the rest of the chapter, my focus mainly is on critically analyzing the medieval theories of Occasionalism, Conservationism, and Concurrentism; last two of which are versions of secondary causalism. I will discuss their plausibility from a theistic point of view as well as the point of view of a scientific realist interpretation of nature. Finally, I propose a version of secondary causalism which I call Ontological Dependence. According to this proposition, God

creates the world immediately and ultimately, and creation does not rule out the efficacy of causation in nature.

Before delving into details, some limitations of my research need to be acknowledged. First, this dissertation is decidedly focused on the God of theism, which means that alternative concepts of God and considerations related to them are ignored except for contrasting purposes. Second, although my interest is primarily metaphysical and occasionally epistemological, the questions I tackle here can also be asked in the discourses such as divine providence, divine action, and science and religion. However, I in no way intend to address the myriad problems broached in thesediscourses, each of which has distinct issues in their own right. Covering all related issues is well beyond the scope of my –in fact, any- project. Third, in dealing with these problems, some philosophers tend to put more emphasis on God's absolute dominion, while others would take pains to give more room for causal efficacy of nature at the expense of adjusting their characterization of God. Most philosophers, though, opted for a compromise between God and the world. Since I put more weight on surveying various accounts than engaging one of them in detail, only a limited number of representative names of the significant accounts is referred to in all discussions. Finally, it may be expected that a philosophy of religion dissertation thesis which deals with causation will address problems of free will, the possibility of miracles, or the problem of evil. Although my discussions of causation and divine sovereignty have implications related to these issues, I postpone examining implications of my account in these important topics for later research.

Chapter 1: The Integrity of Nature

In this chapter, I will argue that, first, the integrity of nature is indispensable intuition for rationalizing reality, and second, once we establish the integrity of nature, causal necessity in nature is entailed. For this, I will begin with elaborating the Aristotelian roots of the concept of causal necessity and its Avicennan development during the medieval ages. Then, I will consider Ghazalian and Humean objections against it and show that even though they are successful in casting an amount of doubt on the reality of causal necessity, their failure to account for the brute fact that nature is an integrated and intelligible whole leaves causal necessity as the most viable alternative in understanding of the reality of nature.

A. A Conceptual Analysis of Nature

I. Nature and Natures

Before talking about the integrity of nature, it is necessary to clarify what is meant by nature. And then, I will go on to explain what I mean by integrity.

The term nature has two overlapping, even slightly confusing meanings. First, it is used to describe a unique characteristic of a thing or an object. This usage is synonymous with the philosophical term *essence*. It is thought to be referring to the most important aspect or characteristic of a thing, signaling some of its aspects are only 'accidental.' The second use refers to the totality of the universe with its empirical as well as rational features. It is widely used synonymously with the term cosmos. These are tightly connected but still two separate meanings.

The Nature or essence of a thing is what makes a thing the thing it is, and information about this is indispensable for knowing it. Objects, animate or inanimate, are distinguished from each other by their natures. The nature of a tree is different from the nature of a cat so that we identify them as a tree and as a cat, respectively. We identify diverse natures of different objects even though we do not know what their natures are. For instance, nature of water is nowhere close to nature of the fire whether one knows or not the molecular structure of the water and the fire. The concept of nature is the key to our knowledge of objects because it is only possible through natures that we define, discriminate, and identify similarities and differences among objects. We drink water when we feel thirsty, believing that it is not like the fire. We start a fire when we want to cook, believing that the fire is unlike soil. The nature of mercury is known to be inimical to humans, while calcium is not. It is believed that they are different elements. And so on.

There may be mistaken judgments over natures of things, which may be corrected by investigation. Dolphins were long been thought to be fish until it was discovered that they are mammals. With this discovery, we learned more about the nature of dolphins. This is a good illustration of distinguishing the essential feature of an object, namely its nature, from its accidental features. Dolphins range in size from 2 to 5 meters long. Suppose, there is an oversized dolphin of 7 meters long called Jumbo. Researchers may classify Jumbo as belonging to rare kind of dolphin family. Or they may simply refer to Jumbo's development stages and say that Jumbo has an exceptional size. Whatever the case, Jumbo cannot fail to be a mammal because if it can, it can no longer be a dolphin. It is the fact that Jumbo's being a

mammal can be identified with producing milk or having three middle ear bones, depending on the decisions of the classifying researcher. However, it cannot be reasonably argued that Jumbo's nature is changed when we classify it in a different species after some investigation. Accordingly, Jumbo is essentially whatever he is regardless of our scientific classification. Then one can ask: can we classify animals who are 35 feet tall and include Jumbo in this species? This could only be inefficiently done because it would not tell much about the nature of Jumbo. By all means, size is an accidental feature of Jumbo, rather than being part of its nature.

In the last paragraph, Jumbo's nature is recognized with certain features of its body that are thought to be essential to its species. In this regard, the recognition is done by referring to some universal aspect of Jumbo's nature. Jumbo is a dolphin in respect to its giving birth and its ability to live in the water. In any case, it belongs to some natural family of mammals. There are other mammals whose natures are somewhat different from Jumbo's, but they still have some basic characteristic features shared with Jumbo. Jumbo has other features shared with even remoter species of animals, thereby including him in a wider natural family. Without a doubt, in the end, Jumbo can be said to be in a wider family of all animals, then of all animate objects, then of all physical beings. Since the last category consists of all physical beings, part of Jumbo's nature must have something to do with mass and volume. There may be even a wider family which may comprise of matter, energy and some other fundamental features. Thus, all objects form a whole through their shared features, the most common of which is their empirical detectability. This whole is also called *nature*. It is the total sum of all natures. Since this sum also

refers to a shared nature, it is safe to assume that everything in nature has something in common that put them together.

There is one more complication. As indicated previously, we may still be mistaken in classification. It can be the case that everything in nature shares not the feature F but the feature F*. But this will not alter the fact that nature refers to a whole family of objects which share a common feature. Regarding the difference between what is described as nature and what is nature, we have to identify a third meaning of the term nature. This will help distinguish between epistemic and ontological senses of the term. To repeat, epistemic nature is the one that we ascribe to what we think of the shared feature of all objects whereas ontological nature refers to the real shared feature. As illustrated with Jumbo's case, we might be wrong about ascribing this or that feature of nature as a whole, but it can never be the case that objects in nature fail to share a common feature. For clarity, I will use nature with capitalized N when this latter sense of nature is referred.[1]

Thus far, I argued that objects have natures and that the totality of their natures forms a universal nature, which in turn, points out the fact that every object in nature shares a fundamental feature. But the question arises as to whether it is the case that there is one shared feature, hence one Nature, instead of multiple universal natural features shared by a different set of objects. It can be suggested that there are more than one set of universal features that are shared by different

[1] No theological signification is intended.

sets of objects. A set of objects O may be sharing the universal feature of F while another set of objects O* may be sharing the feature F*. However, this can be plausibly responded by invoking the very idea of Nature itself. If there are more than one Natures, the fact that they share another feature 'being the most common feature for the definite set of objects' would defeat the initial assumption that there may be more than one Natures. They may refer to different natural traits, but they cannot escape still being Nature. Even if we assume that there are, then it could be argued that all Natures are pointing to a higher universal feature under the latest defined Nature. The consequence is that, by trying to assign a nature to nature, we can only add one more layer to the universality of Nature.

It should now be clear that there can only be one Nature. Moving on now to consider what I mean by integrity. Since we can only philosophize about one nature, which is the nature of the world, this nature must be *uniform*. It cannot be the case that water has nature consisted of x and y here, but it has nature consisted of x and z there. If we discover liquid which looks and behaves like water but has nature consisted of x and z, rather than x and y, it must be concluded that it is a different natural object. Alternatively, we can broaden our concept of water to include the newly discovered liquid, but still, the object that originally called water will be of different nature with its components of x and y and will be at least a species of the newly formed genus 'water.' Therefore, uniformity is indispensable for characterization of nature.

The same reasoning which is used to reveal the uniformity of nature is also useful for asserting the *reliability* of nature, the second indispensable aspect of nature. While uniformity refers to the synchronic aspect of nature, that is, at a given time *t*, all natural objects are concordant with each other, reliability can be described as the diachronic aspect. It is the assertion that all natural objects are concordant with each other at all times. No natural object *n* with essential components *x* and *y* at time *t* can turn into *n* with essential components *x* and *z* at time *t+1*. In addition, it can be maintained that the natural object *n* will have the same not only components but also structure as long as it remains as *n*. In summary, the integrity of nature can be articulated as a conjunction of the principles of uniformity and reliability.

As the last two paragraphs reviewed the key aspects of the concept of nature, one significant question arises regarding the transformation. Nature seems to be uniform and reliable, but it does not seem to be static. Quite the contrary, natural objects are observed to be in constant transformation. It was established that natural objects could not transform without changing to something else. Here, one could ask whether *n*'s transformation into another natural object *m* could violate either of the principles. The answer is in negative. It can be contended that the transformation in question is not the transformation *of* nature but *in* nature. To put it another way, natural objects that are in transformation do not become something else. They cease to be, and its components form another natural object. In fact, this seeming challenge can be turned into reinforcement of the account of reliability. A natural object *n*, when conditions are met, always transforms into the natural object

m. This model is evident in the case of a piece of wood when under suitable physical conditions, e.g., dry, transformed into ash and smoke by the fire. If the process of transformation is somehow halted, we reasonably check conditions if they are suitable. Given it is dry, if it does not catch fire as expected, it may be the case that the structure of the particular wood, say walnut, is more fire-resistant by nature in comparison to the particular wood golden birch, which is much more flammable by nature. In any case, the transformation of one object into another does not violate but bolster the principles of reliability and uniformity. In the final analysis, the integrity of nature is recognized.

Given the integrity of nature, the way to the intelligibility of it is introduced. When the piece of wood that I hold is not catching on fire, it would not be reasonable to rush to the conclusion that the nature of wood has been altered to resist the fire. It is reasonable to look for factors that are inhibiting ignition. It could be anything natural that prevents it from catching on fire, rather than a magician mocking me from the other side of the world by altering the nature of wood instantaneously. Nature is consistent in the sense that natural objects undergo a change in uniform and reliable manner. As we look for reliable and uniform factors or principles of change, we rationalize transformation in nature. To sum up, suggesting that there is consistency in nature ensures intelligibility.

The causes of the consistency of nature have been the subject of intense debate among philosophers for centuries. Does consistency imply a rule or law that natural objects always follow? There are two basic approaches to this question:

Regularist and necessitarian views of laws of nature. Since arguments for both views will be discussed in detail in the next chapter, a brief introduction will suffice here.

Following Hume's lead, regularist views suggest that laws of nature are simply products of the human mind. The regularists do not reject consistency, so the name regularity, instead, they deny the existence of laws of nature that somehow govern the universe. The regularists view that the world is as-is and we can merely describe the regular operations of the world as-is. Laws of nature cannot be governing the universe or implementing changes on natural objects. Even though natural events, they maintain, make sense as we seem them in regular exchange, citing regularities cannot justify the claim that objects must always behave as they do at the time when we are observing them. For the regularists, laws of nature are just statements or propositions to reflect what is observed to be uniform transformations between natural objects. They are merely products of human understanding of the world.

Contrary to the regularist claims, necessitarian views suggest that there is a necessary underlying structure beneath any natural change. For the necessitarian, laws of nature are not products of human understanding; they are operative principles of nature. Regularities, in this view, point out not only some universal statements but also the reality that is reflected by regularities. In nature, there are necessary connections between objects as well as impossibilities. If laws of nature were mere statements about the world, there would be at least ways to break, if not totally change, them. Hence, the necessitarians hold the view that necessity in

nature is the reason why there is the phenomenon of uniform and reliable transformation of natural objects.

The main area of contention between regularists and necessitarians seems to be that the former takes the integrity of nature to be a feature of human understanding whereas the latter understands the integrity as part of the reality of nature. As a result, the regularist world has an epistemic nature mentioned above, which is ultimately contingent upon human understanding, while the necessitarian world has an ontological Nature, which is necessarily grounded in reality. In the next section, I move on to present and discuss in detail the principal arguments for and against the necessity of nature. Then, I will defend the thesis that necessity in nature is indispensable for accounting its intelligibility.

II. Is necessity exclusive to logic?

Philosophers have sought to understand regularity in nature. To that end, they offered several theories that explain how the certain type of event C is always followed by another type of event E. Some of them argued that C necessitates E; that is, when there is C, E must follow C. This is called causal necessity. This notion has been challenged by those who argued that the necessity can only be a property of statements; that is, it is a matter of logic. They believed that the connection between C and E is contingent.

Necessitarians would argue that logical necessity is a feature of statements and their truth value depends on the fact that there is an underlying necessity in nature. Mere analytical statements are not adequate for judging truths about

anything. They would defend this thesis with the help of 20th-century philosopher W. V. O. Quine, who claimed that the analytic-synthetic distinction, which could be traced back to Hume and Kant, fails.[2] Analytical truths, which are necessary if they are true, are believed to be based on meanings alone, independently of the world and objects, whereas synthetic truths are thought to be based on what is happening in the world. He observes that analytical statements like 'no bachelors are married' can be reduced to a bare synonymy. In effect, unless we know from experience what either bachelorship or marriage means, we cannot judge the truth value of the statement. Appeal to dictionaries for definitions of the terms is not of help, Quine objects because dictionaries simply assume -based on the usage of the words- a prior 'synonymous' relation of the word that is defined with the definition. Quine suggests that truth value of a sentence, considered analytic or synthetic, must be revealed by the same reasoning that we use when we judge whether it is raining outside. No statement, in Quine's proposal, can signify meaning independently of the facts. In this case, a necessitarian would argue with Quine that since all our concepts including logical ones like necessity derive meaning from experience, logical necessity cannot be taken in isolation.

Another help comes from Saul Kripke, who draws a conceptual distinction between a statement's being necessary and its being a priori. For Kripke, necessity is a metaphysical feature of a proposition and it denotes that it is true in every

[2] Willard V. O. Quine, "Two Dogmas of Empiricism," *Philosophical Review* 60, no. 1 (1951): 35.

possible world. On the other hand, saying that a statement is a priori refers to an epistemic feature of them and it means that it can be known to be true independently of empirical evidence.[3] After stressing that it is very common in philosophy to overlook the key difference, Kripke proposes that there are also necessary a posteriori truths; necessary truths whose truth value is known empirically. He thinks, for instance, that identity claims, that contain proper names, are necessarily true if they are true: *water is H_2O*. Kripke's reasoning is as follows: if water and H_2O designate the same object, it is necessary that water = H_2O but this necessity is known through empirical evidence, rather than a priori reasoning. Thus, he concludes, there are a posteriori necessary statements. A necessitarian would definitely argue from this that necessity is not an exclusively logical concept.

III. What counts as a law?

The necessitarian may beat off the regularist's challenge that necessity is peculiarly a feature of statements. Nevertheless, this is not enough to prove that causal necessity is a real feature of nature. The necessitarian must also offer a positive account for establishing what counts as a law of nature. Is it universality, or conceivability, or possibility that mark the difference between a law of nature and a mere regularity? In this section, I will give three good reasons for supporting the existence of causal necessity.

[3] Saul Kripke, "Identity and Necessity," in *Naming, Necessity, and Natural Kinds*, ed. Stephen P Schwartz (Ithaca; London: Cornell University Press, 1977), 66–101.

The first reason is that there is a difference between necessary universal statements and statements that suggest a contingent universal case. Inferred from repeated observations, laws of nature are expressed in universal statements. For instance, the first law of thermodynamics states that the total amount of energy in a closed system remains the same, it cannot be increased or decreased. However, not all universal statements, even if they are true, are about laws of nature. Suppose that the world has unanimously opted for single-sex education. In such a world, a statement like no girl studies in a class where a boy does would be universal and true. Or, real cases such as there is no breathing dinosaur are universal and true. However, the necessitarian will argue, these universal statements are contingent and what they express cannot be the same as a necessary universal statement like no material object in the universe can travel faster than light.[4] While universal contingent statements may deliver information about how things are arranged or how something has accidentally gained a universal status, the information that objects can travel only slower than 300,000 km/s is universal and necessary. What is the difference? The necessitarian claims that in the case of the maximum travel speed of material objects, there is a causal necessity which precedes statements. It is embedded in the matter so that it cannot exceed this speed limit. The description of

[4] Popper illustrates this point with *Moa*, the last member of an extinct species of birds, who dies before the age of 50 where they normally live up to 60 years. For details see: Karl Raimund Popper, *The Logic of Scientific Discovery* (New York: Harper & Row, 1968), 428.

this universal feature of the matter is necessary only because it is derived from a necessary fact.

Second, in a similar fashion, the necessitarian claims that false (or imaginary) existential statements and metaphysical necessities can be expressed in the same logical structure even though the former ones do not have any truthmaker. In other words, there must be a reality behind a statement that indicates necessity, otherwise, it would be impossible to tell the difference between truth and falsehood of statements. For instance, the statement 'iron melts at 2,600°F' has the same logical structure as the statement 'iron melts at 2,800°F'. However, the first statement is false whereas second is true. If, the necessitarian reasons, iron did not have the necessary components and structure resulting in the process of melting at 2,800°F, either of the statements above would satisfy it regardless of the real nature of iron. In this case, it could be concluded that iron melts at either (in fact, countless other) temperatures; an evidently inconsistent conclusion. There must be a truthmaker relation of the statement with the real nature of iron that stands out from all other conceivable values. Moreover, one can even make a universal statement about imaginary beings. The statement that *all phoenixes have three livers* is a universal statement, but since there is no causal necessity for its truthmaker, it is impossible to judge its truth value.

A third reason positing causal necessity in nature concerns the difference between what can be done through natural means and what cannot. Necessities in nature let us know the limits of 'possibility'. It is possible that voice is transmitted

long distance through converting it into electrical signals; hence we have radios and cell phones. If there was no causal necessity in nature determining the wavelength in which sound can be transmitted, cell phones would be mere imaginary devices. By all means, we can communicate long distance through sound waves because the necessary structure of sound operates with a nature which makes it possible for it to work. The necessitarian will assert that while it is possible that sound can be transmitted long distance, it is impossible to transmit it faster than the speed of light. Why? Because there is causal necessity prohibiting sound waves to travel faster than their natural speed. Suppose, the necessitarian will hypothesize, an epidemic virus caused the end of the world before the discovery of radio waves. Then, even though it would be impossible for cell phones to transmit voice over radio waves because there would be no one to invent cell phones, the impossibility here would be merely accidental and would not evoke an impossibility in nature. The necessary nature of radio waves would be there, but there would accidentally be no one to discover what could be done with them. Thus, the necessitarian makes the case again for the two different senses of the word necessity through showing that possibility and impossibility have also two senses: One is determined by causal necessity, the other is a logical function of a true description (also known as conceivability).

This section has attempted to illustrate three reasons for the existence of causal necessity in nature. The first reason appeals to the difference between contingent and necessary universal statements about states of affairs while the second one is based on the difference between real universals and false/imaginary

ones. The third reason is built upon the difference between two senses of possible: one logical, another metaphysical. Yet the sense of the expression *causal necessity* is still not sufficiently clear. In the next section, to achieve some clarity, I will present the principal ideas that give a shape to the concept of causal necessity.

B. Aristotelian Roots of Causal Necessity

The Greek philosopher Aristotle (384–322 BC) is committed to causal necessity on two grounds that are thought to be metaphysically irreducible: change and natures. To evaluate his position, it is important to grasp not only details about his theory of causation but also the conceptual framework that supports it. This background includes his identification of four causes, with the special emphasis on efficient cause, as well as his ideas on actuality and potentiality.

Aristotle thought that scientific knowledge is to know causes that bring about a thing.

> "Knowledge is the object of our inquiry, and men do not think they know a thing till they have grasped the 'why' of it (which is to grasp its primary cause). So clearly we too must do this as regards both coming to be and passing away and every kind of physical change, in order that, knowing their principles, we may try to refer to these principles each of our problems."[5]

[5] Aristotle, *Physics*, 194b18-23. For this and all other references to Aristotle, the translations are taken from: Aristotle, *The Complete Works of Aristotle: The Revised Oxford Translation*, ed. Jonathan Barnes, Bollingen Series, 71:2 (Princeton, N.J: Princeton University Press, 1984).

He claimed that the question 'why' could be responded to in four distinct ways; each is indispensable for explaining the thing under investigation, and still, none of the ways is sufficient alone.[6]

These four ways constituted his famous doctrine of four causes: material, formal, efficient, and final. If there is anything to be explained, all four causes must be there. When you see a stone bridge, you know that its material cause, the cause out of which the bridge is made, is stone. The formal cause or explanation for it is the form into which it is made. In our example, it is bridge-ness that was in its mason's mind before and during its construction. This mason, therefore, is the one who efficiently builds stone into a bridge. He is the efficient cause, the one by which the bridge is made. The final cause is the intention to let people cross the river. The final cause is the reason for which in the first place the mason bothered to build a bridge. In Aristotle's explanation, both accidental (in place, quality, and quantity) and substantial (generation and corruption) change only occur when all four causes are present. If we fail to know even one cause out of four, our explanation for the thing in question –be it natural or artificial- will be imperfect or, worse, wrong. In other words, the item in question will be less intelligible.

[6] Mortimer Jerome Adler, *Aristotle for Everybody: Difficult Thought Made Easy* (New York: Macmillan, 1978), 41.

A crucial point to notice is that the concept of cause is used in this theory. All causes are used in complementarily ways to explain the object or event in question.[7] They are identified so as not to leave any 'essential' information about the coming to be of this specific object. For instance, without the knowledge of the material, our knowledge of the bridge will be incomplete. So, by material causes, Aristotle does not mean 'matter is acting on something.' He means that it is an essential part of explaining the existence of a stone bridge. In this respect, there is no rivalry among four causes.

That being said, the efficient cause is the most important of all for explaining the natural motion because it initiates the motion.

> "[n]either the wood nor the bronze causes the change of either of them, nor does the wood manufacture a bed and the bronze a statue, but something else is the cause of the change. And to seek this is to seek the second cause, as we should say, - that from which comes the beginning of the movement."[8]

It could be the case that one has enough stones (material) and that he knows what bridgeness is (form), and he has reasons to build a bridge (finality), but in order for there to be a construction, an efficient cause, 'the builder', must be present and actively initiate becoming the bridge. The efficient cause is the one that *moves* the potentiality of the bridge into actuality.[9] Since for Aristotle *"The fulfilment of*

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[7] Sarah Broadie, "The Ancient Greeks," in *The Oxford Handbook of Causation* (Oxford University Press, 2009), 21–33.

[8] Aristotle, *Metaphysics*, 984a27.

[9] Thomas M Tuozzo, "Aristotle and the Discovery of Efficient Causation," in *Efficient Causation: The History of a Concept*, ed. Tad M Schmaltz, 2014, 23–47.

what exists potentially, in so far as it exists potentially, is motion -namely, of what is alterable qua alterable, alteration",[10] this is not merely a conceptual claim. It is suggesting that the builder must actually move things around in order to bring about a new substance by changing either the place or mixture of materials in the form of a building.

The last point brings us to where in nature, Aristotle thinks, necessity resides. In the case of a building, the efficient cause, namely the builder, does not have to build it. It could be the case that he chose to build it or to leave everything as they are so that there would be no building. By contrast, for non-human natural objects, there is no option. An object C brings about a change in the object E if C is efficient to move and if E is suitable to be moved. In Aristotelian terminology, this relationship is explained by the terms of actualization and potentiality.

> "We maintain that one and the same 'matter' is equally, so to say, the basis of either of the two opposed things - being as it were a 'kind'; and that that which can be hot must be made hot, provided the heating agent is there, i.e. comes near."[11]

All objects are believed to have active and passive powers which enable them to change under certain circumstances. Water, on the one hand, has the power to make things wet. On the other hand, it could be heated by fire. The former is an active power while the latter is a passive power. Notice here, both active and passive powers are powers in relation to something else. More importantly, both are

[10] Aristotle, *Physics*, 201a10-11.

[11] Aristotle, *Physics*, 324b7-9.

powers. In either case, one has to admit, water has powers or potentialities, regardless of their being active or passive. The Aristotelian argues that unless water has active power to make paper wet, and unless paper has passive power to get wet, there would not be any natural action resulting in paper's being wet. In this regard, water is the efficient cause which is necessary for the event to take place as well as the paper is the recipient which is necessary also for the event to take place. To put it another way, if there is a natural change (wetness), there must be an efficient cause (water) and a recipient (paper). Here is where necessity lies. It is impossible for water to actualize its power if it is not acting 'on' something else. Similarly, it is impossible for the paper to get wet if it is not acted upon by something else. The change from potentialities (or powers) of water and paper to the actuality of a wet paper is characterized by a necessitation relationship in which Aristotelians call water the cause and the wet paper the effect. Causal necessity, in this case, is a direct result of the Aristotelian idea of change, which is described as a move from potentiality to actuality.

One can object this characterization of necessity by claiming that in the case of water and paper, there are two separate powers that seem paired, but we should not rush to the conclusion that one necessarily acts on the other. This objection can be refuted by pointing out the fact that the necessity does not reside in the pairing of the separate powers; instead, it resides in the single change that objects bring about together. Differently said, it is necessary for water to get the paper wet when they meet when there is nothing else to prevent the change. So, the necessity resides in the very fact that there is a wet paper at the end of the process, a change in the

effect. Given the matching powers of water and paper and the fact that change is impossible without an effect being produced, it can be said that the cause necessitates the effect. We designate this as the active necessity with respect to its reference to the change in nature.

What's more, there is also a deeper sense of necessity in the Aristotelian view of nature. In contrast to the abovementioned active necessity, there is also necessity as potential with respect to its reference to the natures of objects (or substances in proper Aristotelian terminology). According to Aristotle, an object C brings about a change in the object E if C is efficient to move and if E is suitable to be moved if and only if C has the nature of moving E while E has the nature of to be moved by C. That is to say, it is due to the essential features of C and E that a change comes to be under certain circumstances. To demonstrate that there is necessity in nature, an Aristotelian would argue, there is no need to posit any extra entity or category. Natures are proper designations of the powers of things. Water has a nature to get things wet while the paper has a nature to get wet under certain circumstances. It is not reasonable to think water as acting on things to get them dry, or conversely, to think paper to get dry when we spill water on it. If water could be characterized with a power to dry objects, it would be a completely different object itself. So, the operation of objects in nature are not arbitrary but directly entailed by their essential features. In this case, necessity in nature can be explained by causal powers of objects that are grounded in their natures. For rejecting this necessity, one must reject natures for the objects. The obvious cost of this rejection is very high. It can be contested that if objects have no natures that are specific to each one

of them, it is not possible to know whether there is more than one kind of object. I am not sure how this view can reasonably be defended because the refutation does not even allow talking about nature of argumentation or proof. In this Aristotelian view, nature is so fundamental a metaphysical entity that it cannot be reduced to something else without loss. So, the necessity offered here is based on the fact that objects can be identified with distinct natures, which refer to distinct potentialities such as water-ness and paper-ness. As Nathanael Stein clearly stated:

> "Since these potentialities are themselves grounded in properties of the relevant particulars, these relations may be understood as necessitation relations between properties or universals. That is, the positive properties which correspond to having the potentialities to heat and to be heated are linked insofar as their presence in given particulars makes actual heating necessary under certain circumstances."[12]

Coupled with the active necessity with respect to change, the necessity described here as potential with respect to natures demonstrates that causal necessity is inevitable for the integrity of nature.

The complementarity between two senses of necessity is supported by Aristotle's distinction of necessary beings in:

> "Now things owe their necessity to something other than themselves; others do not, but are themselves the source of necessity in other things."[13]

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[12] Nathanael Stein, "Causal Necessity in Aristotle," *British Journal for the History of Philosophy* 20, no. 5 (September 1, 2012): 863.

[13] Aristotle, *Metaphysics,* v.5 1015b9-11.

It can be argued that the necessary beings that fall into the first category refer to change while those which fall under the second category refer to the agents of the given change who act by nature. Thus, causal necessity ultimately lies in the natures of agents:

> "Nature is a source or cause of being moved and of being at rest in that to which it belongs primarily, in virtue of itself and not in virtue of a concomitant attribute"[14]

Finally, it makes sense to ask which one of the necessities identified in this section is more fundamental. I would like to call attention to the fact that they are separate only conceptually. In fact, one can be considered as a derivative of the other. Considering the essential features of the objects, the change that is described in concord with these features can be said to follow from what is necessarily ascribed to the object in question. In other words, the essence of the object C entails both what C is and what change it causes on the object E. Hence, we have been talking about a single necessity with different respects, to change and natures. The utility of addressing two respects of causal necessity should not give us the false impression that there are two necessities at work. To clarify, here's an illustration by Olesiak:

> "[T]he growth of a plant from a seed to a mature individual is initiated by such a principle in the seed and is directed by the same principle in the tree that sprouts from it."[15]

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[14] Aristotle, *Physics* II.1 192b21-23.

[15] Jaroslaw Olesiak, "Nature and Necessity in Aristotle's Physics," *Studia Philosophiae Christianae* 51, no. 1 (2017): 57.

One may assume that causal necessity can be reduced to the natures of objects. If it is true, we must admit that all necessities are reducible to the most basic features of natural objects such as iron's atomic mass, which is 55.845. But this does not seem to be true. According to Aristotle, simple necessities in nature like iron's atomic mass is only part of causal necessity in nature. The necessity of the parts of a compound is not sufficient to explain all features of the complex processes. Iron oxide, for instance, has a different nature than iron, which is not merely a combination of the features of iron and oxygen when taken by themselves. It is true, the production of iron oxide depends *necessarily* on the features of iron and oxygen molecules; but the new complex whole, which is a new efficient cause, has its own nature, which denotes an additional necessity. Aristotle calls it the hypothetical necessity. In terms of the parts, the object is determined by the simple necessities embedded in its nature, while in terms of the whole, it depends hypothetically on the existence of something else.[16] This should be the aim of the passage cited above where it says "*things owe their necessity to something other than themselves."*[17] Hence, natures of complex objects are still necessary, that is, they are irreducible to something else, but this necessity is accounted by the unity of the given object.

On this account, it is difficult to see how the whole has construed the cause of the motion that has started by the efficient cause. In other words, an objection could

[16] Olesiak, "Nature and Necessity," 59.

[17] Aristotle, *Metaphysics,* v.5 1015b9-11.

be raised by stating that if the final cause of the object is governing the process of change from the beginning, then is it reasonable to think that what is produced in the end is the final cause. Even though the process is initiated by the efficient cause, the producer remains to be the necessity which is embedded in the final form of the object. In this case, the producer and the product of change seem to be identical. This question has long been discussed by Aristotelians and received extensive analyses of the relationship between efficient and final causes. One of the most sophisticated analyses has been offered by Avicenna, whose ideas on causation took the discussion to a whole new level.

A more pressing problem with the Aristotelian understanding of causal necessity concerns the attribution of powers to the natural objects. It is argued that whether causation is utilized to know the nature of the object or the natures of objects is used to determine causal relationships is obscure. The objection asserts that what comes first in terms of our knowledge of the object is not clear. If we know objects by their causes, the possibility that we might be mistaken in determining the real causes might also lead us to attribute false natures to the objects. This problem is a version of the problem of induction. A passage in *Posterior Analytics* supports the view that Aristotle allows hypothetical necessity to apply for most cases but not for all. The way we derive mathematical conclusions from necessary premises, which are a priori, is undeniably different from the way we derive conclusions from contingent premises, which are acquired by means of observation and generalization. As Owen observes;

> "the matter is complicated by his failure to maintain a sharp distinction between laws that provide a necessary (and even uniquely necessary), and those that provide a sufficient condition of the situation to be explained."[18]

The success of attaining certain knowledge by way of observation has been questioned by critics of the Aristotelian theory of causation. Yet Aristotelians like Avicenna defended this theory and attempted overcome its problems without giving up on the idea of necessity. The task of the next section is to analyze Avicenna's attempts.

In summary, we have seen in this section that for Aristotle, necessity stems from, but is not limited to, natures of objects. In any case, it is more than conceptual constraints. It denotes an important aspect of causality with respect to change and to natures of objects. Unless one advances a plausible argument for the claim that there can be action without effect, which would render action possible regardless of antecedent conditions, and unless one advances a plausible argument that there can be objects without potentials, which would render natures otiose, we are justified in believing that there is necessity in nature. This is so despite the problematic issues that we mentioned above. In the next section, I will present how this Aristotelian understanding of necessitation has been developed and how the particular problems have been addressed by Avicenna.

[18] G. E. L. Owen, "Aristotle: Methods, Physics, and Cosmology," *Complete Dictionary of Scientific Biography* (Charles Scribner's Sons, 2008), 253.

C. Avicennan Development of Causal Necessity

The Muslim philosopher Avicenna (c. 980 – 1037 AD) establishes his philosophy on top of the Aristotelian tradition but goes way beyond it in characterizing the nature of causality with modal terms. In fact, the typical feature of Avicenna's philosophy is its recognition of the distinction between essence and existence, on which he establishes a modal ontology. Even though the distinction is based on passages in Aristotle's *Posterior Analytics*[19] and *Metaphysics*[20], where the answer to the question whether *"a thing is"* is said to differ from the answer to the question *"what a thing is,"* its scope has been widened by Avicenna to cover almost the entire metaphysical landscape. As will be clear, causal necessity directly results from this distinction and gains an ontological status.

The starting point of Avicennan philosophy is to take existence as a brute fact.[21] It is important to note that the brute fact of existence is not referring to the existence of this or that thing. Rather, it is referring to the fact that there is undeniably at least one thing regardless of its mode of existence. That is, it could be mental or external, or in some other mode that we do not know of, but there is necessarily some existent beings. Even though this can be read as a parallel to

[19] Aristotle, *Posterior Analytics,* II B 92b10.

[20] Aristotle, *Metaphysics,* v.5 1015a20-b15.

[21] Avicenna, *The Metaphysics of "The Healing": A Parallel English-Arabic Text = Aš-Šifā': Al-Ilāhiyyāt*, trans. Michael E. Marmura (Provo, UT: Brigham Young University Press, 2005), 23.

Descartes' *cogito*,[22] Avicenna's emphasis on the primacy of existence is much stronger. Descartes takes it to be the case that one must be aware of his existence, whereas for Avicenna the awareness of existing is posterior to the existence of awareness. Notice, in Avicenna's reasoning, awareness is possible *only if* it exists. In other words, in order for something to be referred to, it must exist in the first place. This is the ontological priority of existence, which is the starting point of all metaphysical and physical commitments of Avicenna.

The ontological priority of existence led Avicenna to distinguish between essence and existence. The distinction was first introduced by Aristotle, but it matured into a fundamental ontological principle in Avicenna's metaphysics. The principle postulates that everything consists of essence and existence. The term essence refers to what a thing is without affirming whether it exists or not while the term existence refers to the fact that this thing actually exists. Avicenna contends that we can talk about the reality of a thing by virtue of its properties, but this does not entail its existence. For instance, the descriptive definition of a horse can be given without affirming that it actually exists. Thus, what establishes the existence of the horse is not its essence because the essence is not sufficient to bring it about that the horse exists. The horse's essence is indifferent to both its existence and non-existence.

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[22] René Descartes, *Meditations on First Philosophy: In Which the Existence of God and the Distinction of the Soul from the Body Are Demonstrated*, trans. Donald A. Cress, 3rd ed (Indianapolis: Hackett Pub. Co, 1993), 18.

Such an exposition as above is unsatisfactory unless it clarifies the relationship between existence and essence. "Generated" is:

> "[something] that has the possibility of being and the possibility of not being. It is not inasmuch as its being is possible that it exists, nor is it by virtue of the fact that the other has the possibility of generating it that [the other] bestows existence. This is because a thing's being generated by that which has the possibility of generating it is not due [to the fact] that [the former] has the possibility of generating it. For, its merely being capable [of generating it] is not sufficient for a thing's coming into being from it. […] if its mere capability to generate it [obtains], then the thing, even though not sufficient, would exist with it at one time and not exist at another, […] Indeed, sound reason necessitates that there should exist a state that differentiates between [the thing's] existence from it and its nonexistence [from it]."[23]

According to Avicenna, the concept of essence gives the hint of the ontological status of the thing in question: it is equally possible for the thing to exist and not to exist. It is thus a possible thing in itself. If it is possible in itself, then there must be a factor which is effective in the existence of the essence, so that it can exist rather than not exist. Avicenna employs the principle of sufficient reason[24] and holds that this factor is effective on the thing by necessitating it to exist. To put it another way, the thing that is possible in itself also becomes necessary through another. Thus, once the ontological status of the thing is established in modal terms, Avicenna's idea of the relationship between essence and existence is illuminated: it is of necessity.

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[23] Avicenna, *The Metaphysics of the Healing,* 126-127.

[24] Kara Richardson, "Avicenna and the Principle of Sufficient Reason," *Review of Metaphysics* 67, no. 4 (2014): 758.

The distinction seems to be designed to address the problem that I have stated in the last section. Briefly, the final cause seems to be both the producer and the product of the change. The problem cannot be merely prevented by identifying the final cause with the efficient cause because this would only lead to circularity. However, Avicenna responds to this problem by arguing that the existence and essence of the final cause are separate.[25] In this respect, the essence of the final cause is prior to all causes while its existence is a result of the causality of other causes. Here, it goes without saying that the problem caused by the fusion of production and the product of change by final cause is resolved.

From this perspective, it is not difficult to see that the characterization of the relationship between essence and existence by necessity results in the Avicennan innovation which has been very influential in medieval philosophy. Aristotle's four causes had already been under scrutiny for centuries. But with this characterization, Avicenna offered a single account of the efficient cause which is applicable in both physical and metaphysical investigations.

> "The metaphysical philosophers do not mean by 'agent' only the principle of motion, as the naturalists mean, but the principle and giver of existence, as in the case of God with respect to the world. As for the natural efficient cause, it does not bestow any existence other than motion in one of the forms of motion. Thus, in natural sciences, that which bestows existence is a principle of motion."[26]

[25] Robert Wisnovsky, *Avicenna's Metaphysics in Context* (London: Duckworth, 2003), 170.

[26] Avicenna, *The Metaphysics of the Healing,* 195.

It is clearly proposed in this passage that the efficient causes, or agents, give existence, be they natural agents which cause a change in matter determinately or rational agents which cause change indeterminately. The difference between first and second kinds of agency is only a matter of different agents instead of different relationships between agents and recipient of the action (the patient). Rational agents have the ability to do otherwise while natural agents do not. The point to notice is that this all-inclusive concept of agency helps Avicenna apply the same rational standards for both how motion takes place and how things come to be. In case of the physical agency, under appropriate conditions (such as place, void, time and the continuum), objects are necessarily moved by another object. This explains the existence of a particular motion. In the case of the metaphysical agency, essences are necessarily brought into existence by an agent whose essence is ontologically prior. In either case, the agent is the cause of being. Notably, the first kind of agency reflects the Aristotelian idea of causal necessity, as discussed above. It is centered on the concept of change. But the latter kind calls for more analysis. The idea is clearer with an illustration provided by Avicenna:

> "the mind is not repelled at all by our saying, 'When Zayd moved his hand, the key moved,' or "Zayd moved his hand, then the key moved"; but it is repelled by our saying, "When the key moved, Zayd moved his hand," even though [the mind rightly] says, "When the key moved, we knew that Zayd moved his hand.[…] It is not the existence of the second movement that causes the existence of the first, but it is the first movement that is the cause of the existence of the second."[27]

[27] Avicenna, *The Metaphysics of the Healing,* 126.

This illustration suggests that the movement of the key depends on the movement of the hand, even though both movements are simultaneous. Differently stated, if there were no motion of the hand, then there would not be the motion of the key either. Stripped of the illustration, the principle reads: if the agent did not cause, then the effect would not come to be. Thus, it would not be false to suggest that in contrast to Aristotle's causal necessity, which arises out of his understanding of natural change, Avicenna's causal necessity is an ontological principle which is designed to explain why there is something rather than nothing.

In addition, two features of the metaphysical agency (or the efficient cause of being) can be inferred from the illustration. First, the metaphysical agent is always simultaneous with its effect. Since the agent is bestowing existence, it would not be reasonable to suppose that the effect may sustain itself once it is brought into being.[28] Rather, as long as the effect exists, we would know that it is being necessitated because it is not an essence without existence. The contrasting view – which would state that once necessitated the effect can exist without constant necessitation– can only be established if the distinction between essence and existence is initially rejected.[29] Provided that the concept of essence is exclusive to a state in which no existence can be attributed, essences –of things- cannot remain in

[28] Kara Richardson, "Avicenna's Conception of the Efficient Cause," *British Journal for the History of Philosophy* 21, no. 2 (March 2013): 220.

[29] Michael E. Marmura, "Avicenna on Causal Priority," in *Islamic Philosophy and Mysticism*, ed. Parviz Morewedge (Delmar, N.Y.: Caravan Books, 1981), 74.

existence by themselves. In short, in Avicenna's view, there cannot be a temporal gap nor any sequence between cause and effect.

The second feature of metaphysical agency is that it does not have to indicate a single instance of causation. As the arm moves the hand, the hand moves the key, and the key moves the mechanism in the door lock. There are many instances of causation within a single act. Therefore, the act of bestowing existence is conceptualized as a causal chain. Coupled with the first feature, the metaphysical agency can be construed as simultaneous causal chain resulting in the necessitation of an object.

The emphasis on necessitation reveals that Avicenna's conceives the agent causation as the relationship[30] between the essence and existence of a thing (that is possible in itself and necessary through another) established by an ontologically prior agent.

> "The effect would then proceed from it necessarily, regardless of whether [the added existence] is a will, an appetite, an anger, or some external thing awaited for the existence of the cause"[31]

According to Avicenna, the existence of this agent is also necessitated by an even more prior agent, and so on. The causal chain terminates in the first cause, which itself is not caused. The first cause is an agent whose existence is not

[30] Olga Lizzini, "Causality as Relation: Avicenna (and Al-Ġazālī)," *Quaestio* 13 (January 1, 2013): 175.

[31] Avicenna, *The Metaphysics of the Healing,* 127.

necessitated nor needs necessitation because His existence and essence, in contrast to everything else's, are one and the same. Thus, the causal nexus includes everything that exists but the First Cause, which indicates that He is outside of the nexus.

Having said that, there seems to be an inconsistency in distinguishing between metaphysical and natural agencies after suggesting that Avicenna offers a single account of agency. Here, it is crucial to realize that the difference between natural and metaphysical agencies is a matter of degree, not of kind. For Avicenna, even though both bestow existence, the degree of their effects on the patient are not the same. On the one hand, if the effect exists because the cause prevents its absolute non-existence, then the agent's causation is metaphysical.[32] On the other hand, if the effect is that which exists after specific privation in the matter, then the agent's causation is natural.[33] It can be argued that the latter kind is subordinate to the former on the grounds that the latter agency is not possible without the former. Thus, both degrees of the agency are legitimately called agency even though one depends on the other.

What is more, natural and metaphysical agents differ in terms of their relationships with time. The natural agent does not have to coexist with its effect. Once the father impregnated the mother, the child's existence does not require the

[32] Avicenna, *The Metaphysics of the Healing,* 203.

[33] Avicenna, *The Metaphysics of the Healing,* 204.

father's simultaneous existence. The father's existence was necessary when he impregnated her, but he is not the cause of the existence of the baby.[34] He is the immediate cause of the sperm, but only the remote cause of the child's existence after fertilization.

Avicenna recognizes another difference between natural and metaphysical agents. He distinguishes between those agents who are also patients and those who are not. Natural agents are also patients because they are under constant change. The hand is the patient of the agency of the arm while at the same time it is the agent of the change in the key.[35] Against this background, Avicenna axiomatically claims that since the agency is inimical to patience, the agents who are also patients are not representatives of the true agency. On the contrary, the agent who acts upon patients but is not acted upon by another agent is the true agent. Avicenna reserves this unique place for the first cause, whose essence and existence are identical.

Let us take stock of what we have said so far. Avicenna's account of agency recognizes necessity as an indispensable feature of the reality of all beings insofar as they exist due to the distinction between essence and existence. This is true for metaphysical agents, who bring about effects after their absolute non-existence, and for natural agents, who bring about effects after special privation in the matter. The former kind of agency requires no pre-existing material to act upon, while the latter is possible only under appropriate conditions. Even though metaphysical and

[34] Richardson, "Avicenna's Conception of the Efficient Cause," 222.

[35] Avicenna, *The Metaphysics of the Healing,* 200.

natural agents differ regarding temporal relations with their effects, that is the metaphysical agent is simultaneous with its effect while the natural is not, both agents are said to bestow existence by necessitating their effects. Whatever is possible remains only possible unless it is necessitated, either naturally or metaphysically. Ontologically, since all causal series end in the first cause, the necessity of any kind is ultimately the result of the first cause's bestowal of existence. In conclusion, it is clear that Avicenna construes necessity as almost synonymous with existence.

If it is true that natural and metaphysical agents differ even though the meaning of agency remains the same, what are the metaphysical agents that Avicenna considers to be simultaneous with their effects and bestow them existence? Adapted from the Neoplatonist commentators of Aristotle, particularly al-Farabi,[36] Avicenna proposes that the first cause, whose essence and existence are identical, bestows existence only to the first intellect. This is the single immediate effect of the first cause because according to Avicenna causing multiple effects would result in the complexity of the first cause, a result which is deemed to be, in fact, argued for, false on the grounds that the first cause is ontologically simple. After the creation of the first intellect, the existence is being donated to a lower level of intellect, which in turn donates existence to an even lower intellect, and so on until

[36] Herbert A Davidson, *Alfarabi, Avicenna, and Averroes, on Intellect: Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect* (New York, N.Y.; Oxford: Oxford University Press, 1992), 74.

it reaches the tenth intellect, which is also called the Active or the Agent Intellect. The sublunary world is the product of the form-giving activity of the Agent Intellect. It gives forms to the matter which is prepared to receive the form by the natural agents. The forms of the world, thus, are all contents of this lowest intellect.[37] In this hierarchical account of the cosmos, all intellects are the efficient causes of the lower beings. Their effects are simultaneous and necessitated. Sublunary objects are only natural efficient causes, which may be separate from their effects in time, and which necessitate them only under suitable conditions.[38] Thus, the objects that are agents and patients at the same time are only capable of bringing about effects after certain privation, rather than preventing their absolute non-existence. To repeat, thus, they are only dependent kind of agents.

Another significant advantage of the hierarchical account of cosmos is that it enables Avicenna to maintain the integrity of nature despite the multiplicity of agents. As Avicenna asserts:

> "every existent has a species of relation and reference toward [the other] existents"[39]

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[37] This is called the emanation theory. In the original theory, all ten intellects were associated with the stars (in fact, they turned out to be planets) whose motions were thought to be perfect. Nevertheless, this should not concern us here because even though it describes inaccurately the physical cosmos, the metaphysical implications of the theory can still be defended as relevant.

[38] Avicenna, *The Metaphysics of the Healing,* 67.

[39] Avicenna, *The Metaphysics of the Healing,* 273.

For him, in Olga Lizzini's terms, nothing can be in ontological isolation.[40] In other words, existence is an encompassing term which entails that all its members are somehow related to some other member. We have seen above how celestial intellects (and their souls and bodies) are related to each other and, more importantly for our discussion, how the objects in the sublunary world, be it mental or external, are related with respect to their source and with respect to each other as well. Even the first cause is no exception, as Avicenna makes it clear when he describes divine attributes in the context of emanation: "[This is] particularly [true of] the existent from whom all existence emanates".[41] Therefore, Avicenna provides not only that nature is an integral whole but also that every existent comprising it has an ontological context.

Although Avicenna's proposal of the essence and existence distinction succeeds in not only accommodating Aristotelian ideas but also offering an ontological ground for causal necessity, it seems not as much successful in addressing the problem which I described in the last section, concerning whether causal features define natures or natures define causal features. As I stated earlier, this is a form of the problem of induction. How are we supposed to know essences of things by observation? We attribute essence to an object because of its causal features, but circularly, we also attribute causal features to an object because of its nature. Avicenna himself sees induction as problematic by acknowledging that the

[40] Lizzini, "Causality as Relation," 179.

[41] Avicenna, *The Metaphysics of the Healing,* 273-78.

generalizations made by observation cannot lead to certainty in knowledge.[42] However, he also holds the view that when the observation of particulars is combined with the discovery of 'hidden syllogism,' certainty can be achieved. In broad terms, the discovery of hidden syllogism refers to the cognitive process through which the observation of particulars is refined so far as to reveal the universality behind the reality of the thing in question. The remarkable move comes from the Neoplatonist side of the Avicennan metaphysics, according to which the discovery of the hidden syllogism is a process which is directed by the Agent Intellect, which is also the source of the forms of natural objects. When your mind is connected to the Agent Intellect, the knowledge of the essence of the thing becomes evident because the sources of both the knowledge and actual forms of an object are the same. Despite its remarkable success in connecting knowledge with the object known, unfortunately, this argument still does not help to prioritize nature (essence) of an object over its causal features or vice versa concerning our knowledge. Therefore, the epistemic problem of prioritizing natures or causal features, which Avicenna inherited from Aristotle, is left in part unresolved.

So far, it has been shown that Aristotle's causal necessity depends on his analyses of natural change, and ultimately the nature of things, whereas Avicenna has ontological reasons to support the view that there is causal necessity in nature.

[42] Jon McGinnis, "Scientific Methodologies in Medieval Islam," *Journal of the History of Philosophy*, no. 3 (2003): 307.

In the section that follows, I present the harshest attack on causal necessity which is made by al-Ghazālī and then discusses its success.

D. The Ghazalian Attack on Causal Necessity

The famous passage in al-Ghazālī's The *Incoherence of the Philosophers* reads:

> "The connection between what is habitually believed to be a cause and what is habitually believed to be an effect is not necessary, according to us. But [with] any two things, where "this" is not "that" and "that" is not "this" and where neither the affirmation of the one entails the affirmation of the other nor the negation of the one entails negation of the other, it is not a necessity of the existence of the one that the other should exist, and it is not a necessity of the nonexistence of the one that the other should not exist—for example, the quenching of thirst and drinking, satiety and eating, burning and contact with fire, light and the appearance of the sun, death and decapitation, healing and the drinking of medicine, the purging of the bowels and the using of a purgative, and so on to [include] all [that is] observable among connected things in medicine, astronomy, arts, and crafts. Their connection is due to the prior decree of God, who creates them side by side, not to its being necessary in itself, incapable of separation."[43]

This passage is the beginning of the chapter which aims at establishing the possibility of miracles. Al-Ghazālī is primarily concerned that if causal necessity in nature is acknowledged, God's suspending or overwriting causal interactions will be impossible. This is because al-Ghazālī believes that necessity and impossibility are only logical terms. Hence, he claims that, unless there is a logical inconsistency in thinking about the cause X's not bringing about the effect Y, the relationship between the cause X and the effect Y cannot be considered necessary. This is true

[43] al-Ghazālī, *The Incoherence of the Philosophers = Tahāfut Al-Falāsifah: A Parallel English-Arabic Text*, trans. Michael E. Marmura (Provo, Utah: Brigham Young University Press, 1997), 170.

even if the effect Y immediately follows the cause X in all instances. If there is no necessary connection between any two objects, al-Ghazālī reasons, everything is granted with possibility by virtue of the agent's power. Thus, al-Ghazālī's criticism clearly presupposes that necessity is uniquely a feature of logic, rather than also of nature.

Despite its clarity in a negative stand against causal necessity, modern scholarship is divided over the positive interpretation of al-Ghazālī's own approach to causality. The disagreement stems from the ambiguous language of the same chapter, in which he investigates alternative approaches to the question of causality. Through the discussion, al-Ghazālī leaves some of the approaches without explicit endorsement or denial. The matter gets more complicated considering al-Ghazālī's warning that the discussion aims to attack the doctrine of the philosophers, rather than to establish his own. Still, relying on al-Ghazālī's other texts, on the one hand, scholars like Michael Marmura[44] attempt to show that al-Ghazālī rejects any kind of causal powers to objects. On the other hand, scholars like Richard Frank[45] and Frank Griffel[46] argue that al-Ghazālī admits the reality of secondary causes, which are thought to be operative in nature but dependent on divine will at the same time. A

[44] Michael E. Marmura, "Ghazālian Causes and Intermediaries," *Journal of the American Oriental Society* 115, no. 1 (January 1995): 89.

[45] Richard M. Frank, *Al-Ghazālī and the Ash'arite School* (Durham, N.C.: Duke University Press, 1994); Richard M. Frank, *Creation and the Cosmic System: Al-Ghazâlî & Avicenna : Vorgelegt Am 27. April 1991* (Heidelberg: C. Winter, 1992).

[46] Frank Griffel, *Al-Ghazālī's Philosophical Theology* (New York: Oxford Univ. Press, 2009).

satisfactory evaluation of their arguments is not the focus of my project. Rather, I will try to discuss the strength of the different approaches to causality that al-Ghazālī presented in the chapter. In due course, I will make references to either side of the argument to see if we can determine whether al-Ghazālī accepted the reality of secondary causality in nature.

Al-Ghazālī's argument takes the task of refuting causal necessity on two planes: epistemic and ontological. On the epistemic plane, he draws our attention to the conceivability of any event without referring to its cause or its effect. According to him, as long as one can think of fire without it burning a paper (or something else), it is possible that fire may not cause burning. Differently said, the event of the burning of paper is not logically entailed nor logically negated by the event of the fire's touching it. All we can see is two separate events occurring in sequence: fire touches the paper at time t and the paper burns at time t+1. With respect to our knowledge, the only accessible piece is the fact that there is a sequence of events. Other than this affirmation, al-Ghazālī asserts, there is no necessary connection between two events. That is, *"neither the affirmation of the one entails the affirmation of the other nor the negation of the one entails negation of the other"*[47] Therefore, he seems to make the case for taking all objects in epistemic isolation.

Equally important is al-Ghazālī's rejection of defining things by their causal relations. Addressing the core problem that I mentioned when I discussed

[47] al-Ghazālī, *The Incoherence of the Philosophers*, 170.

Aristotle's and Avicenna's metaphysics of causation, al-Ghazālī reflects that no causal feature necessarily defines any nature. By the same token, it is impossible to derive an object's causal features from its nature. Observation, he insists, only shows that two separate things come in succession, without either entailing the other. This is most obvious with his example of the separateness of burning from the contact with the fire. According to al-Ghazālī, the fire is before the burning of paper and totally separate from it. The burning of paper does not tell us about the nature of the fire nor does the knowledge of the fire lead us how it is going to affect a piece of paper. The reason why we connect these two is that we have a habit of mind that we expect –falsely- that whenever the fire contacts with paper, the burning occurs. This is, nevertheless, not a rational but a customary relationship owing to our observing that they always come in succession. So, it can be inferred from this that the succession of two events does not enable us to assign natures to objects or to attribute causal features to them.

One major drawback of this approach is that it cancels out all possible ways of distinguishing objects. We distinguish objects or characterize events by their respective changes. If the succession of two events (or objects) denotes nothing in reality, in other words, if the fire is not defined by its causal feature of burning the paper (or something else) when they contact each other, how can we ever talk about a distinct object called the fire from another object called the water? This approach has further unpleasant logical consequences. It does not allow one to distinguish the object A from the object B because A's nature is never known to be distinct from the nature of B, which is also unknown. For this reason, the statements 'A is B' and 'A is

not-B' may have the same truth value. In fact, since the two statements are contradictory, it will turn out that no statement can ever be claimed to be true or false. If a simple statement like this has no truth value, then, one wonders, how anything can be argued with reason. Thus, al-Ghazālī's insistence on epistemological isolation would cost him what he values most: logic.

On the ontological plane of the argument, in stark contrast to Avicenna's postulate that every existent is related to another, al-Ghazālī seems to hold that all existents are ontologically isolated: *"it is not a necessity of the existence of the one that the other should exist, and it is not a necessity of the nonexistence of the one that the other should not exist"* This statement amounts to saying that two things are never really related. Your arm and your hand are not related, but only together. Or, more dramatically, oxygen is not related to the functioning of the lungs nor are lungs related to the bloodstream in mammal body. In sum, according to al-Ghazālī, every existent should be taken itself as an object which is independent of any other object but dependent only on God's will. As we said earlier, by this way, al-Ghazālī aims at defending God's total power over everything. If every object exists independently, nothing else can be held accountable for its existence. If nothing is accountable, then the existence of the object could only be explained by the activity of a supernatural being: God.

Despite its theological strength, the argument fails to acknowledge the significance of dependency between objects that are essentially related. That is, some objects in nature are essentially connected and you cannot separate them in

reality without loss. Take for instance lungs. In general terms, the functioning of the lungs depends on the amount of oxygen. The mammal's bloodstream, in turn, depends on the functioning of lungs. Without lungs, bloodstream cannot occur because, ultimately, it is a function of lungs. In other words, since the bloodstream is essentially -not accidentally- related to the existence of the lungs, the claim that lungs can exist without affecting the bloodstream would be vacuous. Notice, the argument is not that bloodstream is not possible without lungs (because this can be done artificially, which signifies that you can bypass lung's function). Instead, the argument is that the natural object lung cannot be separated from its core function as a driver of mammal's bloodstream because it is essentially structured to perform this function. Similarly, the fire cannot be separated from what it burns because if there is nothing to burn there is no fire. In sum, the assumption that things are ontologically isolated fails to account for the relationships between objects in nature that are not accidental.[48]

The position that suggests epistemic and ontological isolation of the natural objects is commonly attributed to the Ash'arite theological school. As should be clear, their understanding of reality consists of unqualified tiny particles (atoms) that are accidentally connected by divine will.[49] In this respect, let alone the

[48] This objection can be summarized with canonical terms as: *it is impossible to be a cause without an effect.*

[49] Richard M. Frank, "Bodies and Atoms: The Ashʿarite Analysis," in *Islamic Theology and Philosophy: Studies in Honor of G.F.Hourani.*, ed. Michael E. Marmura (Albany (NY): State University of New York Press, 1984), 39–53.

necessity of causal connection, nothing is claimed to be real but the creation of all objects and events by God. Since they thought that the natures of objects could restrict God's freedom, they did not hesitate to reject any attribution of reality to them. Therefore, for the Ash'arites, things do not have internal principles that can allow them to operate as causes; God alone is the real cause. In effect, the isolative approach that is presented by al-Ghazālī reflects the theological concerns of the Ash'arites.

Nevertheless, al-Ghazālī does not appear to be fully committed to either kind of isolation. As Griffel stresses, instead of denying the reality of the connection between cause and effect, al-Ghazālī is referring to God as the connector.[50] The alternative position that establishes the connection by referring exclusively to the nature of things is still not accepted on the grounds that it would limit divine agency. Nevertheless, as long as the connection is established, thus, necessitated, with a reference to God's will, al-Ghazālī is willing to admit that objects are isolated neither epistemically nor ontologically. With this in mind, would it be safe to suggest that his objection is directed against the necessity of the causal connection? If so, how is it reasonable to accept the reality of the connection between cause and effect without admitting also its necessity? These are the questions that I am going to deal with next.

[50] Griffel, *al-Ghazālī's Philosophical Theology*, 213.

I. The logic of causal necessity

Under Al-Ghazālī's concerns, two presuppositions can be identified: (1) God is the ultimate power,[51] and (2) logic is universally binding.[52] Since neither presupposition is found in the causal relationship, al-Ghazālī seems to find it safe to claim that there is no necessary connection between cause and effect. I argue that both presuppositions have consequences that show that causal necessity is not incompatible with either of them.

One possible implication of the second presupposition is that if logic is universally binding, we have to admit that God is restricted by at least one thing: logical necessity. If you are a Platonist who admits that there is more than one uncreated, eternal principle, this consequence is not much of a trouble. However, if you are a theist, you owe an explanation as to whether this restriction runs against the presupposition (1). God cannot make it that I am 23 years old and not 23 years old at the same time. Al-Ghazālī defends his position by arguing that the references to these descriptions are contradictory, so its impossibility does not impose any restriction on God's freedom. However, this defense does not alter the fact that what is necessary for humans (like 2+2=4) is equally necessary for God and what is metaphysically possible for humans is equally possible for God. One can infer from these premises that conceivability is the standard for both humans and God. Ultimately, then, God and humans are restricted by the same intellectual standards

[51] al-Ghazālī, "The Incoherence of the Philosophers," 166.

[52] al-Ghazālī, "The Incoherence of the Philosophers," 175-6.

even though they differ in terms of creative power. Humans lack the power to bring about whatever they can conceive while God can bring about whatever He can conceive. As a result, we still have to admit that God is restricted by the rules of logic. Then, the necessity which is used in logic posits a restriction for God's power.

A necessitarian would then ask whether causal necessity could be considered likewise as logical necessity. If logical necessity does not diminish God's free agency, why would causal necessity do so? If God is allowed to be bound by logical necessity, His following of necessary blueprints of causal relationships should not be robbing of His freedom. The advantage of the necessitarian's argument is obvious. He acknowledges both the logical and causal necessities as legitimate and complementary grounds of reality. On the contrary, the regularist would need to give reasons why she accepts the logical necessity while rejecting causal necessity if her rejection is based on the supposition that God's freedom would be compromised by the assertion of necessity which does not depend on God's will.

An implication of the first presupposition is that God is the ultimate power behind causal change. That is to say, God and the world are positioned in a causal relationship as God is the cause while the world is the effect. Nevertheless, the positioning is problematic unless we know what causation entails. In other words, if the model after which the God-world relationship is construed is non-necessary, it is reasonable to argue that God's causing of the world can also be considered non-necessary based on the assumption that causation is not a necessitating relationship. In this regard, the necessitarian would argue that admitting causal

necessity will enable one to argue that God is the cause of the world. More significantly, a deist argument can be developed if the causation is deemed to be only contingent. It could run as follows: if the relationship between cause and effect is contingent, then the relationship between God and the world is contingent. It can be inferred that the world can conceptually be separated from God's power as the effect is conceptually separated from the power of the cause. In this case, the deist would argue, the spatiotemporal world can be considered to sustain itself without God's activity.[53] However, if causal necessity is acknowledged, the deist's argument would fail because causal necessity entails that the existence of the effect depends on the cause as long as the effect exists.

Furthermore, given their logical consequences, the first and second presuppositions together may result in a sophisticated form of the God of the gaps theology. If there is no causal necessity, the ordinary course of nature is explained only by constant involvement of God. Nevertheless, if one is committed to the idea that there is no necessary connection between cause and effect and also holds that there is only logical necessity, he could reject al-Ghazālī's first presupposition on the grounds that God is used here as a universal glue where no explanation is needed. As a result, he would find the skeptical alternative more reasonable.

[53] This argument can be considered a version of Hume's rejection of appeal to divine causation.

II. Al-Ghazālī's Reevaluation of Causal Necessity

Al-Ghazālī is not unaware of the problems of committing these presuppositions without qualification. First, as McGinnis notes, al-Ghazālī never explicitly endorses an Occasionalist account in this or another discussion about causal efficacy of the natural objects.[54] Even though he directs his objections against the philosophical notion of causal necessity on the grounds that it is not well-supported, his discussion does not undermine the possibility of scientific knowledge. If scientific knowledge requires ascertained necessary and causal relationships, how would al-Ghazālī justify this possibility? Second, also noted by McGinnis, al-Ghazālī's objections to causal necessity do not strictly follow the Ash'arite lines.[55] His modification of the notions of possibility and impossibility, arguably influenced by Avicenna's philosophy,[56] can be read as an attempt to make room for a philosophically defendable view of divine power. These two points, which I elaborate below, demonstrate that al-Ghazālī is also concerned with the integrity of nature when he argues for the absolute power of the creator.

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[54] Jon McGinnis, "Occasionalism, Natural Causation and Science in Al-Ghazālī," in *Arabic Theology, Arabic Philosophy. From the Many to the One: Essays in Clebration of Richard M. Frank*, ed. James E. Montgomery (Leuven: Peeters en Departement Oosterse Studies, 2006), 441–63.

[55] McGinnis, "Occasionalism," 445-447.

[56] Richard M. Frank, "Ghazali's Use of Avicenna's Philosophy," *Revue Des Etudes Islamiques* 55–57 (1987-89), 279.

The Occasionalist claims that there is no ontological or epistemological connection between cause and effect. In his mind, everything is in complete isolation and the only way to explain the apparently regular functioning of nature is due to God's constant creation instead of internal principles of change in natural objects. This view is vulnerable to Hume's criticism.[57] Its proposal that there is no causal relationship leaves no room to suggest a supernatural causal relationship between God and the world either because causation is shown to be grounded in human imagination. Anticipating this rather unpleasant consequence, al-Ghazālī does not commit to a fully Occasionalist view. Rather, he challenges the view that natural objects are agents in their own right:

> "As for fire, which is inanimate, it has no action. For what proof is there that it is the agent? They have no proof other than observing the occurrence of the burning at the [juncture of] contact with the fire. Observation, however, [only] shows the occurrence [of burning] at [the time of the contact with the fire] but does not show the occurrence [of burning] by [the fire] and [the fact] that there is no other cause for it."[58]

As is clear in the passage, al-Ghazālī does not think observation could prove that there is only one factor which would be taken as responsible for the act. In fact, modern science proved him right about this point by discovering that the fire is able only under the right circumstances to bring about the effect that is usually expected. Without oxygen, for instance, fire cannot burn a piece of paper. However, this is not

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[57] David Hume, *An Enquiry Concerning Human Understanding: A Letter from a Gentleman to His Friend in Edinburgh*, ed. Eric Steinberg (Indianapolis: Hackett Pub. Co, 1977), 46-47.

[58] al-Ghazālī, *The Incoherence of the Philosophers*, 167.

exactly al-Ghazālī's point. His point is that one can never make sure by observation that the cause of an action can be limited:

> "It is known that these [come to] exist with [the placing of the sperm], but no one says that they [come to] exist by it. Rather, they exist from the direction of the First, either directly or through the mediation of the angels entrusted with temporal things."[59]

In other words, he admits that we are not in a position to approve or *reject* all the components that bring about the existence of a single effect. The objection, then, is directed not against the view that certain effects are brought about by certain causes, but against the view that certain effects are brought about *only* by certain causes. In other words, al-Ghazālī emphasizes that the role of an agent in the process of natural causation cannot be ruled out by observing some natural phenomena. As he identifies agency with knowledge and will,[60] it can be inferred that his objection is directed against the view that no volitional element can be incorporated into the accounts of causal necessity. In fact, he observes a possible response offered by the philosophers who invoke the agent intellect. If the objects in this world are considered only to be preparing the matter which is going to receive the form, and the form is going to be emanating from the Agent Intellect, causal necessity can be attributed to the agent intellect's emanation. To this, al-Ghazālī replies that the necessity is still not explained but taken for granted. Unless there is

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[59] al-Ghazālī, *The Incoherence of the Philosophers*, 167.

[60] Thérèse-Anne Druart, "Al-Ghazali's Conception of The Agent In The Tahafut And The Iqtisad: Are People Really Agents?," in *Arabic Theology, Arabic Philosophy. From the Many to the One: Essays in Celebration of Richard M. Frank*, ed. James E. Montgomery (Leuven: Peeters en Departement Oosterse Studies, 2006), 425–40.

an element of *'a way of deliberation and choice',* the act of the agent intellect is still not very different from considering only the causation among natural objects. If the agent intellect, al-Ghazālī asserts, is endorsed with the will, then:

> "it is established that the Agent creates the burning through His will when the piece of cotton comes into contact with the fire, it becomes rationally possible [for God] not to create [the burning] with the existence of the contact."[61]

The argument arguably succeeds in demonstrating that an agent who has will and knowledge is not unwelcoming to the idea of causal necessity. Contrary to what is widely thought about al-Ghazālī's approach, by adopting the Avicennan strategy to show that the Necessary Existent is beyond the world of all possible-in-itself beings,[62] al-Ghazālī thinks that a genuine agent who acts by will would break the regress in causal chains in nature. A source of worry might be that the introduction of a willful agent in the causal nexus will eliminate all the necessary, thus scientific, knowledge. Yet, it is eased by al-Ghazālī as follows:

> "God created for us the knowledge that He did not enact these [absurd] possibilities. We did not claim that these [ordinary courses of] things are necessary. On the contrary, they are possibilities that may or may not occur. But the continuous habit of their occurrence repeatedly, one time after another, fixes unshakably in our minds the belief in their occurrence according to past habit."[63]

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[61] al-Ghazālī, *The Incoherence of the Philosophers*, 169.

[62] Frank, *Creation and the Cosmic System*, 14-15.

[63] al-Ghazālī, *The Incoherence of the Philosophers*, 170.

Thus, the warrant for the integrity of nature cannot be found in nature. It is warranted by the fact that it is created by an agent who is beyond nature. This interpretation of al-Ghazālī is supported by his tendency to see that miracles need not be understood as violations of the laws of nature.[64] Instead, it can be the case that God would accelerate the normal course of nature to bring about effects that He wills. This would obviously be a miracle, but it is important to notice that it still respects the causal procedure that we are familiar with. Even though it still disregards the ontological context in which a natural change can occur to an object, it is consistent with al-Ghazālī's conviction that volition is compatible with necessity. If God can accelerate development of a natural kind to make a difference in history, an act which is no different for God from creating nature, as usual, He can also do so without needing to invoke ontological context within which we habitually observe certain objects to change in certain ways. This interpretation can further be supplemented by al-Ghazālī's explicit statement that admitting the possibility of miracles in this way is not incompatible with the inductive method of investigation. It is clear, then, that al-Ghazālī departs from the classical Occasionalist ontology of the Ash'arite school.

The second qualification of al-Ghazālī's account of causation stems from his modification of the notions of possibility and impossibility. As we said earlier, al-Ghazālī deems it possible for God to bring about what is conceivable. That means

[64] al-Ghazālī, *The Incoherence of the Philosophers*, 171.

that it is impossible for Him to bring it about what is inconceivable.[65] It is noteworthy that al-Ghazālī does not invoke conceptual impossibilities to justify his understanding of conceivability, but also categorical ones. For him, changing something between genus and species, as well as between different genres is impossible, even for God.[66] God is not able to turn a book into height or blackness into a car. This is not only a departure from the classical Ash'arite view of the divine power but also an attempt to propose a philosophically defendable account of miracles.

With these two qualifications, on the one hand, al-Ghazālī convincingly shows that there could be a volitional element in the causal nexus, a claim which makes room for a philosophically defensible view of divine power. On the other hand, he does not definitively rule out the concept of causal necessity for the sake of keeping up the integrity of nature. In this respect, the view that objects have natures is acceptable to al-Ghazālī as long as their natures are said to be enacted by God, a true agent, rather than the agent intellect, which is shown to be another unexplained being in the philosopher's account. Then, it would be safe to conclude that for al-Ghazālī, causal necessity can be recognized as a consequence of the act of God. It is definitely different from logical necessity, but it can still be operative as long as God wills so.

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[65] al-Ghazālī, *The Incoherence of the Philosophers*, 176.

[66] al-Ghazālī, *The Incoherence of the Philosophers*, 175-6.

At this point, one may ask about the characteristic of the necessity described by al-Ghazālī. As McGinnis suggests,[67] the type of necessity that al-Ghazālī recognizes here, in this respect, is teleological. Since God is omnibenevolent, His creations must be the best among all possible options.[68] Thus, God creates nature the way it is and necessitates it out of His goodness. Ultimately, this reasoning tends to observe the general principle (also his second presupposition) that everything must be logically consistent. From this, al-Ghazālī infers that a purely good being does not create anything but what is the best. Thus, He does not let things be just randomly but necessitates them in the best way possible. Their necessitation can be in a way to activate all their passive powers embedded in the natures of things. In this respect, al-Ghazālī's concept of causation mimics Avicenna's concept of possible in itself. Nevertheless, al-Ghazālī's insistence on their constant dependence on a genuine agent's voluntary necessitation at all times is where he diverges from Avicennan metaphysics in general.

Do al-Ghazālī's qualifications adequately save him from the problems of his presuppositions? In sum, he takes it to be true that 1) God has unlimited power and 2) logic is universally binding. The problems are that 1) if God is bound by logic, then there is at least one thing that is beyond God's power, that 2) if logical necessity is acknowledged and is not considered to conflict with divine power, then why

[67] McGinnis, "Occasionalism," 459.

[68] Eric Linn Ormsby, *Theodicy in Islamic Thought: The Dispute Over Al-Ghazali's Best of All Possible Worlds* (Princeton University Press, 2016), 183.

causal necessity would not be considered the same way 3) if cause and effect relationship is not real, then the causal relationship between God and the world cannot be established 4) the view that God is the guarantor of the relationship between cause and effect invokes a God of the gaps theology.

With the introduction of teleological necessity, al-Ghazālī himself affirms the existence of a type of necessity in nature which is not logical. This enables him to hold the view that the connection between cause and effect is real. So, he cleverly saves himself from the consequences of the third problem. He also clearly thinks that God does not arbitrarily act. Thus, causal necessity can be an aspect of divine knowledge (or wisdom). However, this answer does not suffice to show the difference between imposing logical and causal limitations on divine power. In this case, al-Ghazālī's qualifications fail to remedy the problems 1 and 2. Finally, what al-Ghazālī unambiguously denies is the necessity of a causal relationship that is beyond God's power. We should remember that the chapter is designed to show that miracles are logically possible. Here, invoking God of the gaps theology does not weaken but supports al-Ghazālī's standpoint. Since he has successfully shown that miracles are logically possible, and this possibility does not invalidate scientific knowledge, then God of the gaps theology is welcome. Yet, from a philosophical perspective, as we will see in next section, this theological approach poses more problems than it solves.

It is true, taken at face value, al-Ghazālī appears to reject all natures. However, the shortcomings of this rejection are acknowledged by al-Ghazālī and

then responded to by offering a more comprehensive analysis of the concept of causal necessity, which results in two qualifications to his own presuppositions. My aim was not to decide whether or not al-Ghazālī accepts the reality of secondary causes. My aim was to evaluate his objections to causal necessity by revealing his underlying assumptions. However, the evidence weighs more on the Frank-Griffel thesis than the Marmura thesis. In the light of their arguments, I suggest that it is more reasonable to take al-Ghazālī as accepting the reality of secondary causes with an emphasis on God's voluntary necessitation than to regard him as rejecting it altogether. We will discuss this issue again in the third chapter, this time from the perspective of the concept of divine sovereignty.

E. Humean Objections to Causal Necessity

Another significant objection to causal necessity has been raised by David Hume. Following al-Ghazālī's lead,[69] Hume protested against the view that causes entail their effects. Hume points out that the existence of the necessary connection between cause and effect stems from the assumptions that the future will always resemble the past and that similar sense data indicate similar powers in natural objects. Both assumptions, for Hume, can be denied without contradiction. Moreover, we do not perceive the cause and effect relationship. Therefore, we have neither a priori nor a posteriori justification for our belief in causes and effects. According to Hume, the supposed necessary link is enforced by habit, not by reason.

[69] Steven Nadler, "'No Necessary Connection': The Medieval Roots of the Occasionalist Roots of Hume," *The Monist* 79, no. 3 (July 1, 1996): 448–66.

Thus, he argues with al-Ghazālī that what is seen as regularity in nature yields nothing but a taken-for-granted habit of mind. Nevertheless, even though their points of departure are the same, al-Ghazālī and Hume arrive at opposite destinations. In this section, we will see how Hume's arguments against causal necessity have been shaped, and we will consider powerful rejoinders.

Before breaking down Hume's argument, we need to be aware of the question he responds to. Hume's main drive is not to find out what reality is. As the title of his book, *An Enquiry Concerning Human Understanding*, suggests, Hume investigates the nature of human understanding. The book consists of twelve chapters; each is about one particular problem of knowledge. Nowhere in the book is he willing to tackle metaphysical questions directly. Indeed, if he did, it would be a defect in the general thesis of the book. I said he does not *directly* tackle them, but this does not mean that it is not possible to see some hints about his metaphysical commitments. To reveal these commitments in his argument against the claims of causal necessity, it is important to bear in mind that Hume lived after and was well aware of the works of Descartes.

Descartes is an important figure in the history of philosophy in many respects. However, what makes him important for a discussion of causality is his commitment to the mathematical (or, geometrical, to be specific) structure of the world, which finds its source in the divine will. In contrast to Aristotle's natural philosophy whose core is the attribution of power to substances, Descartes claimed that the order in nature is due to the lawful creation of God and, more importantly, it

is up to divine plan, which is ultimately free from any external factor. That is to say, the order in the universe could have been otherwise if God had wished so. In this respect, none of the objects in nature has an inherent quality or characteristic feature. Descartes explicitly rejects natures:

> Others may, if they wish, imagine in this wood the form of fire, the quality of heat, and the action that burns as completely different things; in my case, since I am afraid of making a mistake by assuming in it something more than I see must necessarily be there, I am satisfied in conceiving of the motion of its parts. For you may posit fire and heat in the wood, and make it burn as much as you please, if you do not also assume that any of its parts can move and detach itself from its neighboring parts, I cannot imagine that it undergoes any alteration or change.[70]

Instead of the bottom-up harmony of essences, Descartes believes that the laws that operate from the top down are responsible for the order of the universe. As he discards the Aristotelian notion of essence, the philosophical practice is effectively altered. Descartes' *Meditations* is a clear departure from the ancient naturalistic approach to knowledge, which dates back to Aristotle, who assumes that we owe all our knowledge to senses and that our mind somehow resonates with its content. Descartes reasons that senses are not liable for certain knowledge, especially when metaphysical questions are concerned. Instead, he limits trust to the knowledge of the mind about itself: *cogito ergo sum*. Then comes knowledge of which can be derived a priori from the unshakable knowledge of one's self. As illustrated in the famous wax argument, sense perception fails to deliver accurate knowledge, let alone discover the essence of an object. Thus, Descartes is convinced

[70] Rene Descartes, *Philosophical Essays and Correspondence*, ed. Roger Ariew (Indianapolis: Hackett Pub. Co, 2000), 32.

that any truth which can be inferred from certain knowledge by a priori reasoning is preferable to knowledge acquired by senses. Metaphysical truths, including the laws that govern the universe, can be discovered in a way that is not contaminated by the prejudices and wrong impressions of the sensory perception.[71] That is the way through which he based his conceptions of mind and body duality, the structure of matter, and the existence of God. We should make sense of Hume's *Enquiry* against this background.

Hume clearly shares the Cartesian conviction that our minds do not fit the bill for discovering the essences of objects through observation. However, he pursues further the skeptical voyage of Descartes. For him, the rationality suggested by the Cartesian agenda for checking the process of knowledge is not sufficient either to clear doubts about our knowledge of the world. In fact, it enables us to doubt that we could ever know about the world. Hume's more systematic skepticism about knowledge signals the epistemic turn in the history of philosophy which started with Descartes and peaked at Kant. In this fashion, it is no surprise that Hume designed his argument to exhibit the epistemic weaknesses of the metaphysical claims of the past philosophers. The claim about causal necessity, even when it is not based on the Aristotelian natural philosophy, is one of the primary targets of his criticism.

[71] Gary Hatfield, *Routledge Philosophy Guidebook to Descartes and the "Meditations"* (London: Routledge, 2003), 73.

That being said, Hume does not seem to be a metaphysical skeptic in *Enquiry*. By design, he systematically questions whether the concepts of cause and power are rationally justified, but nowhere in the book, do we come across a denial of their existence. To the contrary, there are hints that he might actually be a metaphysical determinist. For Hume, there is no such thing as chance:

> "though there be no such thing as Chance in the world; our ignorance of the real cause of any event has the same influence on understanding, and begets a species of belief or opinion."[72]

And the probability is merely a preference of mind for more frequent occurrences of causal events over others. We are, for Hume, in no position to attribute indeterminacy to nature. More evidently, when speaking of nature as a whole, Hume believes that it:

> "will always maintain her rights, and prevail in the end over any abstract reasoning whatsoever."[73]

In the end, Hume acknowledges that the content of his analysis, human knowledge, depends on his conviction that the human mind is uniform, and this uniformity is natural. The observation that inference from experience is based on custom, not on reasoning hints at a metaphysical, though not ultimately verifiable, commitment that humans, if not everything, have a common nature. In other words, without referring to 'human nature', which is clearly a metaphysical commitment,

[72] Hume, *An Enquiry Concerning Human Understanding*, 37.

[73] Hume, *An Enquiry Concerning Human Understanding*, 27.

an analysis of human knowledge would not be possible. His commitment to human nature is reinforced by his recognition that:

> "It is an operation of the soul, when we are so situated, as unavoidable as to feel the passion for love, when we receive benefits; or hatred, when we meet with injuries. All these operations are a species of natural instincts, which no reasoning or process of thought and understanding is able to produce or to prevent."[74]

These operations are not limited to feelings. Human nature, as an extension of nature as a whole, is actively responsible for shaping our knowledge of the world:

> "Nature has implanted in us an instinct, which carries forward the thought in a correspondent course to that which she has established among external objects."[75]

He even goes so far as to suggest a link between what is happening in the world, and what is happening in the observing mind, as long as it is not taken as a result of an a priori reasoning:

> "Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces, by which the former is governed, be wholly unknown to us; yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature."[76]

Even though these and similar hints in *Enquiry* are abundant, it is still difficult to conclude that Hume is absolutely a metaphysical determinist. Be that as it may, we have to bear in mind that Hume is not primarily interested in making

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[74] Hume, *An Enquiry Concerning Human Understanding*, 30.

[75] Hume, *An Enquiry Concerning Human Understanding*, 37.

[76] Hume, *An Enquiry Concerning Human Understanding*, 36.

metaphysical claims about reality. Rather, he seeks to show that what is taken to be a fundamental aspect of metaphysics of causation by the Aristotelian and Cartesian philosophers is a matter of epistemology. They presume there are hidden properties or powers of objects in nature which are discoverable by inductive or deductive methods of reasoning. Hume challenges this presumption by claiming that the foundation of either method is not as firm as they thought and "The relation of cause and effect must be utterly unknown to mankind".[77]

First, Hume maintains that a priori reasoning is not sufficient for establishing our belief about cause and effect relationship. In contrast to mathematical inference, for instance, causes and effects in the world do not entail each other. That is, speaking of a cause does not entail thinking of its presumed effect. One can easily regard a particular object all by itself without recalling any of the antecedent conditions that are thought to be necessary for its coming to be. In other words, given its present condition, knowledge of an object never tells us about its cause or effect. Therefore, objecting to the rationalist idea of Descartes, Hume is content that causal relations cannot be inferred by a priori reasoning.

Similar to al-Ghazālī's reasoning, Hume finds support for his skepticism about causal necessity in the fact that any alleged cause can be conceived to be followed by any random effect. Snowing can be very well consistently conceived to be followed by someone's feeling hot. Hume asserts that it is equally consistent that

[77] Hume, *An Enquiry Concerning Human Understanding*, 54.

I feel cold or hot when it snows. There is no necessity in the statement that snowing is the cause of feeling cold. If there was any necessity contained in the concept of snow which entails feeling cold, Hume assumes, logic would preclude us entertaining the idea that it is followed by feeling hot. Necessity, in this respect, is a feature exclusive to logic. Given conceivability of various effects, "every effect is a distinct event from its cause".[78] Thus, objecting to the Aristotelian natural philosophy, Hume's argument concludes that inference from experience cannot be logically utilized to discover 'secret' natures of things, let alone to demonstrate the necessary connection between cause and effect.

Secondly, Hume discards the possibility that the connection between cause and effect can be proven a posteriori. For him, we merely observe one event following another. In this observation, there is nothing to confirm our belief that an earlier event is tied, even loosely, to a later event. We simply do not see any connection as we can see each separately. Thus, Hume insists that cause and effect "seem conjoined, but never connected"[79] because we never observe such a link.

Elizabeth Anscombe questions this reasoning. She contends that our use of the concept of cause "in reporting what is observed" is an indication that we actually perceive causality.[80] In our daily experience, any action verb that we use is either

[78] Hume, *An Enquiry Concerning Human Understanding*, 19.

[79] Hume, *An Enquiry Concerning Human Understanding*, 49.

[80] G. E. M. Anscombe, "Causality and Determination," in *Causation*, ed. E. Sosa M. Tooley (Oxford Up, 1993), 88–104.

causal (like eating, writing, driving, making) or learned by causal interactions (like feeling full after eating, reacting when your name is called). All in all, our senses adopt the causal framework quite easily, and more significantly, understand the content of 'action verbs'.

Hume might have answered this objection by claiming that what is observed in one moment and the next are temporally two distinct experiences. In other words, what I hold in my hand is a piece of chocolate is an experience and separate from the experience that comes next, which is the taste in my mouth. The person who is approaching me at time t says hi to me at time t+1, and his approach has nothing to do with my ability to hear it from a distance closer to my current location because time t and t+1 are distinct observations. In this respect, one's use of the word causation in circumstances like this is nothing but an attribution, which may turn out to be a mere illusion.

Adopting this reasoning entails rejecting the reality of observation. If my observations of the piece of chocolate in subsequent two moments are distinct, then it is difficult to grasp what observation is. That is, if my observation is instantaneous and actually disconnected from my observation in the next instant, then there would hardly be anything to observe due to the facts that, first, the identity of all objects would be dissolved, and second, no tracking of events would be possible. Our observation is not merely consisted in sense perception, as Hume concedes. What we observe is an interpreted whole within the parameters of our focus and prioritizing. It plays the role of uniting pieces of information and sense data into a

meaningful whole. Just imagine, what would happen every time you blink your eyes, you would have to make sense anew of everything all around yourself? Or, imagine a milder case when every time you blink your eyes, you have to refocus. In either case, you would not have any time to make sense of upcoming data. What is more, the observation itself is a causal verb which denotes the activity of the objects and events on our mind. Therefore, if the observation is more than reception of raw sensory data, and if one accepts that we are able to observe things, then Anscombe's reasoning is correct. We observe causality in the same way we observe anything.

Nevertheless, Hume's criticism extends beyond the point of whether we observe causation or not. He would insist that even though we may actually be to observe causation, there is no guarantee in it that the future will resemble the past. Differently said, there is neither a priori nor a posteriori reasoning provided to show that whatever the rules are in the past will apply to the future. Here lies the foundation of Hume's criticism of causal necessity. As long as we conceive things in a way that is not actual, there is a possibility that whatever binds the parts of the universe together may not actually work. Since it is conceivable that water boils at 90 ℃ degrees, all other variables remaining constant, Hume conjectures that, then, in any moment of the history of the universe water might have been boiled, or in future it might boil at 90 ℃degrees, all other variables remaining in constant. In this, water's boiling point is completely contingent, rather than necessary. Hence, we have no rational justification but only experience of a causal relation, which itself

lacks rational justification. The inference from what is experienced to what is expected is not intuitive nor demonstrative,[81] according to Hume.

Here Hume presents a sophisticated form of the problem of induction. It is not only the case that we cannot cover all the individuals of a species in our generalizations at one time, but also that we cannot cover all the stages of an individual over time. Hume's skeptical bug infects uniformity of nature not only spatially, but also temporally. Then, where does this impression about the necessity in nature come from? As has been made clear, it cannot come from a single instance of an event because neither a priori nor a posteriori reasoning could be provided. He entertains the idea that it may come from the experience of the operation of our minds as it seems to be responsible for moving body parts and using impressions to act. However, we really are no less ignorant about how our minds and bodies are connected than how causes and effects outside of our minds are connected. Finally, he hypothesizes that it could be God, the Supreme Power, who is connecting causes and effects everywhere every moment. I will delineate his criticisms of Occasionalism in the second chapter. But briefly, Hume reasons that the option to use God as the universal glue falls short of explaining the uniformity due to the fact that we know nothing about how God creates or how divine causation operates.

He suggests that the source of the impression about the necessity in nature is customs.[82] When we observe that similar objects are followed by similar events, we

[81] Hume, *An Enquiry Concerning Human Understanding*, 24.

[82] Hume, *An Enquiry Concerning Human Understanding*, 28.

get accustomed to their sequence. The key idea here is the repetition of the seemingly same event. The idea of uniformity of nature is formed over time in our mind. Therefore, even though there is a mind-independent relation between cause and effect, what we observe is the repetition of events, from which we infer the principle of causation. Without a number of instances of the same (or similar) event, we are in no position to attribute causal relation. We infer from our experience of the constant conjunction of two consecutive events that the earlier one is the cause of the latter.

Is this true? Keeping in mind that Hume's argument is epistemological, can we affirm that in order to come up with an idea of causal relationship, more than one observation needs to be observed? I am not sure. If the lights automatically turn on when I enter the room, I infer that there is a motion sensor. Let us suppose that there is no motion sensor in the room but a thermal camera that switches the light when someone is in. In this case, my inference is obviously mistaken. However, my belief that there must be something switching the light on when I enter the room is not an inference from constant conjunction. It might be the case that I never found out the truth about the mechanism in the room, but my belief that there must be something which causes the change holds true. Similarly, we do not need to see the constant conjunction of fire and burned hand to infer that fire hurts when it is close. A single instance would be sufficient to conclude that there is a cause, if not sufficient to discover what the cause is.

A die-hard Humean could object to this by asserting that the idea of causation itself has been formed by a constant conjunction. She might suggest that any experience with a cause may count as an instance of 'constant conjunction' to enable one to infer that similar objects are followed by similar events. If we ever felt uncomfortable on a hot sunny day, it is easy to transfer this feature of heat to new experiences involving heat. Thus, she would conclude, the idea of causation requires repeated experience of similar events. Nonetheless, the term 'similarity' demands a better definition to support her argument. It is extremely difficult to pin down a universal understanding of similarity upon which the idea of constant conjunction could be built. The criterion of similarity is so vague that we cannot assume any objective ground. In this form, similarity does not help explain the single instance cases from which we infer causality.

Furthermore, as Anscombe observed, a similarity claim is entailed on formulating generalizations. However, observation does not necessarily involve generalization to form the idea of causality.[83] The link between cause and effect is present in the single instance whether or not we draw similarities between distinct events, or whether or not we observe different instances of the same event. Even though they are tightly connected, generalization is a different cognitive procedure than looking for causes. Generalization is not a procedure to impose forms in nature, rather it is a process of the mind to isolate cases in order to refine knowledge. Considering that most of the time we need trial and investigation to infer from

[83] Anscombe, "Causality and Determination," 95-96.

similar instances, similarity and generalization claims seem to be further steps in the constitution of knowledge. This is most obvious in scientific reasoning, in which hypothesis precedes and shapes the experiments.

The obscurity in Hume's argument is not limited to his idea of constant conjunction. The term "cause" is also unclear. Given that his argument is epistemological, it may refer either to the impression of object-object relationship or object-subject relationship.

If causality in Hume's argument refers to what happens in the mind-independent world, we need more than constant conjunction to produce a theory of causation. Besides the problems stated above, constant conjunction does not help to distinguish between an accidental and a genuine succession of events. You might have observed several times that I move my chair whenever I enter the classroom. However, even though there is a conjunction of my entering the room and my moving the chair, it is difficult to argue that the latter is caused by the former event. It is true, in order to move my chair, I must enter the classroom first. This, however, is a condition, not causation. My repeated action might be merely coincidental. Contiguity of experience, as Hume suggested, is of no help here because, obviously, the two events are spatially and temporally contiguous in mind. Could counterfactual analysis help? It might be stated that if I did not enter the classroom, the chair would not be moved by me. This perfectly makes sense. However, it is still not a causal statement. Perhaps one wants to use the asymmetric relation to decide whether there is genuine or accidental succession. Then, he should state that my

entrance caused my moving of the chair, but my moving of the chair did not cause me to enter the room. This is also a true statement, but it is impossible to claim that it exemplifies causality. Thus, in Hume's argument, the concept of cause cannot be referring to the object-object relationship.

If, on the other hand, Hume's idea of cause refers to the object-subject relationship, we have more serious problems. First of all, if it is the case that causation arises from our observation of the objects, then the constitution of knowledge of causation itself is purely a causative event. Nevertheless, to admit that it is a causative event is to grant mind-independent causation. This is because Hume is not Berkeley, who thinks that mind imposes causation in the world. Instead, Hume is convinced that we observe mind-independent objects. Therefore, unless the problems associated with the object-object relationship are resolved, it might be problematic to defend the thesis that Hume refers to the object-subject relationship. Secondly, if the issues with the object-object relationship are settled, then Hume's argument is unavoidably circular. If the idea of causation is caused, then Hume's argument assumes that there is causation.

What is more, there are strong indications that object-subject causation is required for knowledge. Edmund Gettier's argument prompts us to reevaluate knowledge claims.[84] He argues that the classical 'justified true belief' definition of knowledge does not always hold. Suppose, I believe that there is an airport in

[84] Edmund L. Gettier, "Is Justified True Belief Knowledge?," *Analysis* 23, no. 6 (1963): 121–123.

Ankara or Kirikkale, and suppose, based on evidence, I also believe that it is in Ankara. Even though there is no airport in Kirikkale, my belief is true and justified. Moreover, suppose the airport has moved to Kirikkale and I did not hear this news. My first belief is still true and justified! From examples like this, Gettier concludes that not all justified true beliefs are knowledge. However, the addition of a factual base will fix this. If I observe that there is an airport in Ankara, not in Kirikkale, then my belief will be justified and true. Therefore, belief will not properly constitute knowledge without a posteriori justification, which is the causative event between the object and the knowing subject.

Let me take stock of what has been shown so far. Although Hume's criticism of causal necessity is strong, it suffers from serious weaknesses when it is presented as an alternative theory of causation. We should not let its strength distract us from Hume's primary concern. He is responding to the rationalists who claim that reality of nature can only be discovered by a priori methods. Demonstrating the shortcomings of their methods, Hume succeeds in shifting the focus of the debate to causality. He pushed further the skeptical enterprise of Descartes and concluded that causation is a principle of knowledge rather than reality and necessity is not attached to it. However, as we have seen, in order for causation to function as a principle of knowledge, we need more than constant conjunction. Again, we have seen that Hume's theory assumes mind-independent causation. It obviously falls short of acknowledging the significance of the metaphysical setting in which causation as a principle of knowledge is rendered possible. Given these points, causation cannot be restricted to the sphere of epistemology.

Hume's criticism is similar to al-Ghazālī's in a number of ways, the most significant of which is their remark that the connection between cause and effect cannot be seen as logically necessary.[85] They also share the idea that causation cannot be perceived. However, Hume's skepticism results in an extreme denial of metaphysical knowledge, including knowledge about God and creation. If, Hume reasons, the human mind is not capable of deriving a priori knowledge from what is observed, then it is even more incapable of deriving a priori knowledge from what is not observed. Inspired by Hume, Kant criticized the cosmological arguments on the grounds that they all collapse into an ontological argument,[86] which makes the mistake of taking existence as a predicate. Thus, both Hume and Kant are against the view that the epistemic gap could be filled with omnipotence. By contrast, al-Ghazālī is content to deny that causal necessity makes room legitimately for God's agency. This contrast is most clear when their attitudes toward miracles are concerned. On the one hand, Hume argues that since we establish our knowledge of causation through experience, it would not be reasonable to attach weight to a reported miracle against the weight of evidence which supports the idea of regularity in nature.[87] His line of attack is still epistemic. On the other hand, al-Ghazālī maintains that since miracles and what is seen to be the normal course of events are equally

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[85] Stephen Riker, "Al-Ghazali on Necessary Causality in the Incoherence of the Philosophers," *The Monist* 79, no. 3 (July 1, 1996): 315–24.

[86] Immanuel Kant, *Critique of Pure Reason*, trans. Werner S. Pluhar, Unified ed (Indianapolis, Ind: Hackett Pub. Co, 1996), 586-95.

[87] Hume, *An Enquiry Concerning Human Understanding*, 76-7.

possible, which is clearly a metaphysical commitment, one cannot determine the range of what God can do.[88] Except for absurdities, al-Ghazālī thinks that there is no reason to reject the possibility of unusual events reported by the holy book. It is important here to notice that al-Ghazālī's metaphysical remedy for the epistemic pains he presented is in vain unless one could conclusively demonstrate that God is actively involved in the course of events in nature. Thus, the epistemic gap that both identified cannot be filled by al-Ghazālī's metaphysical assertion that God is the universal glue.

Last but not least, al-Ghazālī and Hume are together in making a mistake by holding that conceivability is the measure of possibility. In their and many contemporary philosophers' view, the possibility is explanatorily prior to nature. Since they tend to consider that ultimate reality can be explained away by our conceptions, whatever is conceived is within the limits of possibility. The actual world, in their view, is only a single instance out of countless possibilities, hence the possible worlds discourse. According to this view, logic constitutes the necessary structure of reality while our world is merely one possible world among many. For instance, glass can be flammable in another possible world even though this is not the case in our world. Both al-Ghazālī and Hume hold the view that as long as a flammable glass can be conceived, the statement 'glass is flammable' is logically (read: ultimately) possible. Nevertheless, as James Ross affirms, this order of

[88] George Giacaman and Raja Bahlul, "Ghazali on Miracles and Necessary Connection," *Medieval Philosophy & Theology* 9, no. 1 (2000): 39–50.

reasoning is mistakenly reversed.[89] The concepts of possibility, impossibility, and necessity, like all our concepts, are derived from what exists, from the actual state of the world as we have seen it. Existence is not an instance of possibility; to the contrary, it is the reserve of all possibilities and necessities. Conceivability, e.g. flammable glass, is a mere mental projection of what holds true in reality. Suppose that one discovers a different set of natural circumstances in which the same glass catches fire. This might only indicate that glass reacts differently in different conditions. It would be absurd to imagine a case in which glass catches fire without any antecedent condition being altered. Or suppose that one can invent another kind of glass, whose appearance is identical to the one we currently have, but it catches fire when it is introduced to flame. Here, we should not be misled by the use of the same term 'glass' for both objects. It may be convenient for practical reasons to call both objects 'glass' even though they have distinct inner structures and exhibit distinct features. It would be similarly absurd to argue that the nature of glass has changed. Instead, what happened is that a new kind (maybe of glass) is invented thanks to the discovery of a possibility in nature. Thus, Hume and al-Ghazālī's assumption based on conceivability that nature could have completely been different should be disregarded.

In summary, one may not have a priori reasons to believe that tomorrow will be like today and that similar objects have similar powers. However, as Anscombe

[89] James F. Ross, *Thought and World: The Hidden Necessities* (Notre Dame, Ind: University of Notre Dame Press, 2008), 39.

argued, we observe causation -not isolated objects- every day. If causation is constantly being observed and forms the basis for the beliefs that tomorrow will be like today and similar objects have similar powers, and since there is no reasoning that defies these beliefs, it is more reasonable to argue that causal necessity in nature is the stronger case. It has to be recognized, after all, that the following reasoning holds true: "If an effect occurs in one case and a similar effect does not occur in an apparently similar case, there must be a relevant further difference."[90]

This section has analyzed Hume's criticism against causal necessity and has demonstrated that it is not as a powerful explanation of the integrity of nature as it is a criticism of the rationalist approach to knowledge. Let alone providing reasons for the uniformity of our knowledge, it is in vain to provide reasons for the uniformity and reliability of nature. It is true that like al-Ghazālī's criticism, it succeeds in casting a significant amount of doubt on human knowledge of causes and effects. However, like al-Ghazālī's criticism, it fails to account for an alternative way of thinking about outstanding regularity in nature, which could be explained rather easily by causal necessity. The next section will provide a brief summary of the 20th-century literature relating to the handling of challenges created by Hume's account of causation.

[90] Anscombe, "Causality and Determination," 88.

F. Modern Approaches to Causation

David Lewis, a follower of Hume, attempted to prove that causation denotes only categorical truths about regularity in spatiotemporal reality. He introduces what he calls deductive systems, which, in his words, is "the doctrine that all there is in the world is a vast mosaic of local matters of particular fact, just one little thing and then another."[91] Systems approach is designed not only to avoid mistaking arbitrary generalizations for the ones that hold true but also to disallow any metaphysical indication pointing to necessity in nature.[92] According to Lewis, an axiomatic explanation is a law of nature if it satisfies the best combination of simplicity and strength in a theorem. Notice, Lewis wants to make sure that laws of nature are still contingent facts. For instance, glass is nonflammable is a simple axiom with a considerable strength. If it is somehow deductively put in a system with a strong axiom that nothing can travel faster than light, it will be a law of nature.

Nevertheless, Lewis' proposal is far from convincing when we consider our example. Simplicity and strength will hardly come together.[93] On the one hand, if one disregards all the underlying explanations for the axiom that nothing can travel faster than light, it will considerably lose its strength because there will be no other

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[91] David K. Lewis, *Philosophical Papers: Volume II* (New York: Oxford University Press, 1987), ix.

[92] David K. Lewis, "Causation," *The Journal of Philosophy*, no. 17 (1973): 556–67.

[93] John W Carroll, ed., *Readings on Laws of Nature* (Pittsburgh: University of Pittsburgh Press, 2004), 3.

explanation which supports the bases of the axiom. On the other hand, a simple axiom like glass is nonflammable will turn into a complex one when we try to connect it with a strong axiom like the one we used. An ultimately simple system like the one whose only axiom is 2x2=4 lacks strength, while an ultimately strong system like the one whose axioms are theorems lacks simplicity because it will not cover anything other than the stated axiom.[94] As a result, while Lewis' effort to explain away causal features within Humean constraints is interesting, its disregard of the metaphysical fabric that renders all deductive systems possible is too costly. Without necessity, propositions about causal interactions and arrangements of objects -and their features- can only be a matter of mental mapping. That is, in the system approach, causal connections depend too much on our partialities for a simpler and stronger explanation. There emerges a worry about laws of nature when this high level of subjectivity is involved.[95] It appears that laws in this approach are about our standards of picking and choosing among rival theories, instead of the world itself. So, the systems approach looks entirely descriptive of what is the case at a given moment from a person's perspective, and so fails to tell us fundamental features of the world.

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[94] Alvin Plantinga, "Law, Cause, and Occasionalism," in *Reason and Faith: Themes from Richard Swinburne*, ed. Michael Bergmann and Jeffrey E Brower (Oxford, New York: Oxford University Press, 2016), 126–44.

[95] Robert C Koons and Timothy H Pickavance, *Metaphysics: The Fundamentals.* (John Wiley & Sons, 2015), 53.

A more demanding challenge is its inability to explain non-arbitrary change in the world. Lewis deliberately avoided making claims about the connection between two moments in the history of the world. If any temporal connection is acknowledged, a form of necessity will be implied. For this reason, he regards the distribution of the qualities in the space-time reality as instantaneous and uniform while he regards reliable operation of nature as merely 'repeating pattern of change'. However, a simple practice of probabilistic reasoning suffices to show that the systems approach is ill-fated.[96] Suppose one is going to pick five balls out of a total of ten balls, of which five are white and five are black. It is a higher probability that he happens to draw two blacks in a row than that the third is also black. Let us say that this is a lucky guy and the third ball he drew happened to be black. The probability of drawing a black in the fourth turn will significantly be lower. And even more improbable in the fifth turn. In each successive drawings, the probability of drawing another black ball is lower. If this reasoning is correct, then the probability of the world's keeping its regular course must be decreasing every moment. This illustration reinforces the conclusion that the alleged laws of nature in systems approach fail to account for the integrity of nature.

A non-Humean approach is adopted by David Armstrong. Its main objective is the same as Lewis', to distinguish accidental generalizations from genuine laws.

[96] Koons and Pickavance, *Metaphysics,* 58.

However, Armstrong does not hesitate to utilize the concept of necessity to achieve this. For him,

> "Suppose it to be a law that Fs are Gs. F-ness and G-ness are taken to be universals. A certain relation, a relation of non-logical or contingent necessitation, holds between F-ness and G-ness. This state of affairs may be symbolized as 'N(F, G) (Armstrong 1983: 85)."[97]

This definition is intended to establish a link between two universals, one as necessitated by another. N is the key concept here. It is the specific relationship between two universals. For instance, the universal water-ness necessitates being frozen at 0°C. The universal 'water-ness' stands in a specific, necessitating relation to the universal 'being frozen at 0°C'. Then it could be correct to say that water necessarily freezes at 0°C. Since such a necessitating relation is missing between the universal water-ness and another universal 'being faster than light', it would be wrong to assume that water can travel faster than light. In like manner, since water-ness does not stand in a necessitating relation to the universal 'studying hard', a generalization like 'whenever one gets soaked in rain, he studies harder' would not be necessary. Notice the necessitating relation described here is non-logical (neither of the universals entails the other) and inescapably contingent. It is contingent because of Humean worries. If it is conceivable that water is frozen at -14°C, it cannot be the case that the relation established between waterness and being frozen at 0°C is logically necessary. Admittedly, this Platonic way of thinking captures

[97] D. M. Armstrong, *What Is a Law of Nature?* (Cambridge University Press, 2016), 85.

nicely the commonsensical belief about the regularity in nature. It simply proposes that the necessitating relation is externally imposed upon objects.

Nevertheless, we should not rush to embrace this approach before asking Armstrong: what exactly is the relation that holds between two universals and does not hold between another two? As Lewis famously complained:

> Whatever N may be, I cannot see how it could be absolutely impossible to have N(F, G) and Fa without Ga. (Unless N just is a constant conjunction, or constant conjunction plus something else, in which case Armstrong's theory turns into a form of the regularity theory he rejects.) The mystery is somewhat hidden by Armstrong's terminology. He uses 'necessitates' as a name for the lawmaking universal N; and who would be surprised to hear that if F 'necessitates' G and a has F, then a must have G? But I say that N deserves the name of 'necessitation' only if, somehow, it really can enter into the requisite necessary connections. It can't enter into them just by bearing a name, any more than one can have mighty biceps just by being called 'Armstrong.'[98]

Essentially, the universals approach leaves us without an explanation of why one of the relations holds while the other one does not. As a result, we still do not know what the lawmaking (or necessitating) element in the contingent relation between two universals is. As Koons and Pickavance[99] rightly point out, Armstrong makes no more than a factual claim which basically says that some generalizations are necessary and others not. Furthermore, the supposed relation between universals (N-ness) seems to be regulated by another necessitating relation because it is a universal itself. In addition, the universals approach lacks an explanation for

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[98] David K. Lewis, "New Work for a Theory of Universals," *Australasian Journal of Philosophy* 61, no. 4 (December 1983): 366.

[99] Koons and Pickavance, *Metaphysics,* 52.

why particular instances are in relation to universals. Since particulars are employed in the theory only to conform to the universal relations, there is no justification for universals being the fundamental entities of the world. It is evident that in this approach, the integrity of nature is considered as a brute fact rather than the point to be justified.

G. Conclusion

This chapter began by describing two meanings of nature and arguing that the integrity of nature is the key to the intelligibility of the world. It went on to suggest that causal necessity is a feature of nature. If nature did not have a uniform and reliable structure, we would not only be cut off from the world but also from rationality. Causal necessity has been defended by some philosophers on the grounds that the world is intelligible. It has also been attacked by others on the grounds that the intelligibility of the world may only be the mind's projection of reality.

First, Aristotle considered causal necessity as a feature of the world on two grounds. One, there is action and action is not possible without an effect. Thus, causes entail their effects. Second, the existence of an object without any potential is impossible except for the First Mover. Thus, every object in the world has a nature, which is defined as the internal principle of its change. Despite its problems, Aristotelian justification of causal necessity from the point of view of physics has been influential.

Second, Avicenna's essence and existence distinction gave rise to a metaphysical account of causal necessity. All existent beings are composed of essence and existence. The essence of a being does not necessitate its existence: it is merely possible for it to exist. An agent is required to bring it into existence. Thus, without a game-changer agent, a cause, no essence would be able to exist. Note that, for Avicenna, necessity and existence are closely connected. If something exists, then it was necessitated. This is true even though the existence of everything other than the First Cause is possible. Since existence is bestowed, Avicenna commits to the idea that all existents are in relation to something else necessarily. Hence, causal necessity is operational in nature.

Third, al-Ghazālī seems to object to the Aristotelian idea of nature on the grounds that it leaves no room for divine agency. His reasons, however, are not completely theological. Al-Ghazālī insisted that the link between cause and effect supposed by the Aristotelians is not necessary because thinking about one does not entail the other. He concluded that since there is no logical necessity between cause and effect, yet we have the integrity of nature, God should be responsible for the operation of nature. The necessity that can be found in nature, according to al-Ghazālī, is teleological.

Fourth, in a similar line of thought, Hume argued that the connection between cause and effect is justified through neither a priori nor a posteriori reasoning. As long as an alternative ending is conceivable in a causal interaction, it cannot be necessary. In addition, a necessity in nature is not perceived. Thus, the

idea of necessity results from customs and habits of mind. Hume is convinced that in reality what we have is only a constant conjunction of two events. By this, he challenged Aristotelian as well as Cartesian natural philosophy. Nevertheless, his project of defining the integrity of nature only in terms of empiricism fails to account for nature's uniform and reliable operation. Given that Hume is a skeptic, it is no surprise that he does not offer a fully-fledged alternative to causal necessity.

Finally, contemporary attempts to challenge causal necessity have not succeeded. David Lewis tried to make sense of Humean regularity without acknowledging that it fails to explain temporal regularity of nature. Moreover, the criteria he proposed to construct a theory of causation, namely simplicity and strength, are doomed to be too subjective for a philosophical understanding. Unlike Lewis, David Armstrong attempted to explain causality in terms of contingent necessity. However, for him, necessity operates only among the universals. The ambiguity of Armstrong's thesis about how universals are actually related to particulars and to each other did not let it account for the integrity of nature.

In the chapter that follows, with the positions I discussed in this chapter in mind, I present three theses that are designed to explain the integrity of nature and I argue that the best explanation is the causal necessity that derives from the natures of objects.

Chapter 2: The Case for Causal Necessity

It should have been clear in the previous chapter that the controversy is not over whether or not nature is an integral whole. None of the figures whose ideas I dealt with has gone so far as to question whether nature is uniform and reliable. The real issue centers on determining the metaphysically fundamental entity that would justify it. There appear three main views on this; regularism, extrinsic necessitarianism, and intrinsic necessitarianism. In this chapter, I evaluate all three views then I put forward the view that the integrity of nature is most justified in a theory which takes dispositions of objects as metaphysically fundamental and explains the integrity of nature with dispositions of objects.

A. Regularism

Even though the recent scholarship points out the fact that David Hume is a metaphysical realist,[100] his powerful skepticism towards the knowledge of causation gave rise to a kind of metaphysics which is mainly a denial of necessity in nature. In this view, the integrity of nature consists in a spatiotemporal patchwork of local events and nothing more. Since Hume's skepticism leaves no room for the belief that there is a pattern behind succession of events, one is not in a position to make

[100] Galen Strawson, *The Secret Connexion: Causation, Realism, and David Hume*, Revised Edition (Oxford, New York: Oxford University Press, 2014). Also; Tom L Beauchamp and Alexander Rosenberg, *Hume and the Problem of Causation* (New York: Oxford U.P., 1981). And; John P Wright, *The Sceptical Realism of David Hume* (Manchester: Manchester University Press, 1983).

metaphysical claims beyond remarking on the occurrence of the current events. In this case, regularity is taken to be the unanalyzable, thus ultimately inexplicable, point. However, whether regularism offers an adequate explanation for the integrity of nature is dubious for a number of reasons.

First, although the regularist views nature as an integral whole, he thinks that there is no underlying structure that guarantees its maintenance. In other words, until the last day of the universe, if there is any, the regularist could not find an opportunity to talk about any structure because according to him laws are only descriptive. We know that the sun is rising now but this does not tell us about whether the sun will rise tomorrow or if it will not, whether there could be any natural reason that prevents the sun's familiar motion. In fact, familiarity is a mere illusion due to the fact that there may or may not be two different structures producing the same event. The only available explanation for any event is that it happens regularly. In consequence, the regularist must believe that there is no sufficient reason to identify something as the law of nature except that there are reports of detached events.

Then, we are entitled to ask: what does a law of nature explain if it merely summarizes the events that have happened in nature up to the point we reported them? Since the regularist account offers no temporal or spatial connection between events, a statement in the form of a law of nature becomes merely an affirmation of a state of affairs. Affirmation of the fact that milk is nutritious for cats does not explain why milk is nutritious. In any case, statements like this whose purpose is to

indicate a law of nature does not have any explanatory role.[101] As I have shown earlier, any such statement is easily confused with an accidental generalization because the regularist leaves us no criteria for distinguishing accidental and genuine regularities. Consequently, in the Humean world, the concept of regularity is deliberately left devoid of ontological ground.

It may be true that leaving behind the quest for an ontological ground permits the regularist to develop a simple understanding of the world. In this understanding, all truths are categorical, which are determined by the facts distributed in space and time. No necessity is involved. Nevertheless, besides the problem of the subjectivity of the judgment of what is simpler, which we discussed earlier, this epistemic parsimony is recognizable only when it is compared with rival theories of causation.[102] More importantly, it does not provide us with good reasons for why a simpler theory is more preferable.

The problems stated here are due partially to an incomplete analysis of causation. Following Hume and al-Ghazālī, the regularist believes that what is observed as cause and what is observed as effect are two distinct and epistemically isolated events. Thus, the cat drinks milk is an event distinct from the event of her energy being restored. Remember this is the exact claim al-Ghazālī has made:

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[101] Stephen Mumford, "Laws and Dispositions," in *The Routledge Companion to Metaphysics*, ed. Robin Le Poidevin et al. (London & New York: Routledge, 2009), 471–79.

[102] Stephen Mumford, *Laws in Nature* (London: Routledge, 2006), 16.

> "It is within [divine] power to create satiety without eating, to create death without decapitation, to continue life after decapitation, and so on to all connected things."[103]

The problem with this analysis stems from the fact that observation of events is taken to be the proper object of causation. The regularist disregards the context in which an event occurs and rushes to the conclusion that events are discrete. The context of an event that he disregards consists in time, place, but more importantly, objects. In the example, we have a cat and we have milk. What kind of changes the cat undergoes are strictly related to what kind of changes the milk undergoes in the event that the cat drinks milk. It is obvious, for instance, that milk does not have the same nutritional effects on an inanimate object. Thus, the primary object of causation is not a series of events, but the very object whose properties are being altered in the event. The regularist would defend his view by saying that this poses no challenge to his theory because we can only observe events, not objects themselves. Nevertheless, it is not difficult to see the faulty reasoning here. We may have objects without events, like the cat, but we cannot see events without objects like the cat drinking milk. Even though the event is taken as epistemically prior in most cases, this does not mean that it is ontologically prior too. Objects that are involved in an event cannot be subordinated to our observation of their causal interactions. Events are merely shorthand descriptions of the real changes objects undergo in a causal interaction. Talking about events is adopted in every day as well

[103] al-Ghazālī, *The Incoherence of the Philosophers*, 166.

as scientific tasks for the sake of efficiency. However, "it is not events qua events that 'do the work' of causation."[104]

The second doubt about the regularism arises out of this same mistake. Since the regularist operates with a view that he could isolate events epistemically, he also believes that conceiving of an alternative order of events is as coherent as the observed order of events. Contrary to this claim, for instance, an intrinsic necessitarian, following Avicenna in his rejection of any kind of ontological isolation, would argue that events cannot be taken in isolation because they are merely descriptions of changes in objects that are composed of certain dispositions.[105] The milk cannot fail to feed the cat as long as the cat is a cat and the milk is milk. According to this objection, conceivability results from an incomplete characterization of the causes involved in an event. If the milk poisons the cat, then either the milk contains extra materials that are detrimental to an organic body, or the cat's body is under extraordinary biological conditions in which milk is not properly processed. In either case, the event will not be an alternative order to the regular order of events. Rather, it will be a different event involving different objects – a poisonous milk or an unhealthy cat or both. This conclusion is supported by the intuition that our conceptions are not prior to objects. If we derive our concepts from what we observe, instead of the other way around, then conceivability should

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[104] Anjan Chakravartty, *A Metaphysics for Scientific Realism Knowing the Unobservable* (Cambridge: Cambridge University Press, 2010), 107-108.

[105] Walter Ott, *Causation and Laws of Nature in Early Modern Philosophy* (Oxford: Oxford University Press, 2014), 248.

guide us as long as we recognize the normal course of events. In other words, if we recognize that milk is nutritious for mammals from the events that the cat drinks milk and her energy is restored, then we might conceive that it is also nutritious for a newly discovered mammal. This is obviously more reasonable than thinking that milk can be conceived of as poisonous for another species of mammals. All in all, the necessitarian's resort to essences, that is what makes the cat necessarily a cat, proves itself successful. The concept of milk without the necessary components that make it nutritious for the cat is inconceivable.

A correlate of this view is that conceivability is the basis for possibility – the core idea of the modern possible worlds discourse. In general, it is thought that conceivable states of affairs form a world, or a plane of reality, which is not realized in our world. Roughly, possible worlds are alternative realities in terms of causal relationships. It is usually held that except for broadly logical constraints, any state of affairs which can be compiled in mind is represented in a possible world. Possible worlds discourse is sometimes taken so far as to propose that any possible world represents an ontological entity. In this discourse, which is called modal realism,[106] our world is one out of infinitely many possible worlds. The problem with this discourse lies in the failure to realize that epistemic judgments based on the features of our world are not sufficient to render merely possible entities (or, more

[106] David K. Lewis, *On the Plurality of Worlds* (Oxford: Blackwell, 1986), 1-10.

accurately, imaginable) real.[107] Generally, the conceptions are considered possible as long as they are derived from what seems to be real and can consistently be inserted in the general picture of the world. In contrast, it is free-form conceptualization if the possibility in question refers to an unspecified reality and an inconsistent picture of the world. In the process of creating free-form conceptualizations, as it is done in modal realism, one has to ignore some essential causal features of the properties, like milk's being nutritious for mammals. Ignoring or being ignorant of essential features might enable one's mind to create free-form conceptions of already known objects, like a perpetual motion machine, but this will never be an evidence of their reality or even possibility. We should not be misled by the use of possibility here. It is a mere possibility when concepts are constructed free-form, while it is a real possibility when concepts are derived from observations of nature. "The merely possible is an intentional projection from the actual and the potential."[108] Hence, given its unreliability, the regularist view of conceivability -in the disguise of possibility- offers no strong alternative to causal necessity.

Finally, the third doubt about the regularism concerns the possibility of knowledge in general and the intelligibility of the world in particular. A regularist could deny that accuracy is among his norms. But accuracy is an important element for a theory of causation because prediction depends on judgments of whether a

[107] Sydney Shoemaker, "Causal and Metaphysical Necessity," *Pacific Philosophical Quarterly* 79, no. 1 (March 1, 1998): 72.

[108] Ross, *Thought and World*, 39.

statement accurately describes a state of affairs. Without prediction, let alone scientific investigation, how would everyday functioning of our minds be possible? Thus, inductive skepticism is inevitable for the regularist. More importantly, it is difficult to maintain a coherent account of knowledge without admitting the causal connection between the features of objects and the subject who perceives them. After all, extreme cases aside, the human mind is able to detect the difference between the perception of a cat and a hallucination of a 20 yards long cat. With causation, memory attunes perception into reality. In like manner, causation is key to preserving meaning in human language. Without a chain of causally connected expressions, it is not possible to determine whether a specific word refers to a specific object. Standalone descriptions, which lack causal chains, fail to specify the object they refer to. For instance, as Kripke[109] demonstrated, a description of someone who teaches at Ankara University fits many people, but the causal chain which links back to Gurbuz Deniz is required for knowing whom I am referring to.[110] These cases illustrate what the stakes are here. An ontological basis comprising causation is needed for not only metaphysical but also epistemological reasons.

It should be clear that Hume's characterization of causal events as 'entirely loose and separate' comes at a significant cost. A world without necessary connections is a world without past and future and is filled with objects that are devoid of any features. Hume's arguments are designed to counter the rationalist

[109] Saul Kripke, *Naming and Necessity* (Oxford: Blackwell, 1980), 8.

[110] Koons and Pickavance, *Metaphysics*, 44.

claims of necessity in nature, but its level of skepticism reaches so far as to threaten the intelligibility of the world. Thus, the regularism not only severs ties between cause and effect but also between knowing the subject and the object of knowledge; which leads to an epistemological crisis. Then, it could be reasonably claimed that the regularism is so infected with problems that it could offer little to explain the integrity of nature. More significantly, as will be clear in the next sections, causal necessity stands as the more powerful explanation, whether or not Humean skepticism could successfully be refuted.[111]

In the regularist view, regularity of events is taken to be the ultimate reality. Not everyone agrees. Necessitarians hold the view that the ultimate reality is the underlying necessary structure of regularity. However, there is disagreement among them on what to make responsible for this structure. On the one hand, philosophers like Descartes, al-Ghazālī, and Armstrong thought that necessity is imposed upon matter just like laws are imposed upon subjects. For them, the source of causal necessity is extrinsic to the world. In this view, objects in the world are governed by laws of nature. On the other hand, philosophers like Aristotle, Avicenna, and Shoemaker support the idea that the source of causal necessity is intrinsic to the world. They maintain that every object has causal properties which are essential to it. Now, I turn to analyzing both theories of causal necessity, starting from the extrinsic one.

[111] Mumford, *Laws in Nature*, 16.

B. Extrinsic Necessitarianism

The first kind of necessitarian believes that necessity is imposed upon objects from above. Briefly, its modern form states that if it is true that all cats are mammals, then there is a universal relationship between being a cat and being a mammal that makes it true. In other words, the causal necessity works from the top down in this view. One consequence of this view is that objects do not need to *have* properties to be individuated. In fact, objects need no properties at all since their role is simply to instantiate universals. Even though the relationships among the universals are necessary, the relationships between universals and their instantiations are contingent. That is, it is not logically necessary that all cats are mammals even though there is a necessary relation holding between the universal cat and the universal mammal. Laws of nature, in this case, as denoting relationships between universals, are contingent.

One significant shortcoming of this theory is that the emphasis on nature is missing. Instead of nature itself, the integrity of nature depends on a group of abstract laws whose associations to objects are not really determined. On this level of clarity, the extrinsic necessitarian could be only referring to the epistemic nature, which I described in the first chapter as the one that we ascribe to what we think of the shared feature of all objects. It is contingent upon human understanding, rather than being metaphysically grounded in reality. It is uncertain how the integrity could possibly be defended in this characterization of reality.

Another shortcoming is that it does not clarify why necessitation between two universals, for instance between being a cat and being a mammal, holds while it doesn't hold between another two, for instance between being a cat and being a stone. According to many critics of Armstrong's theory, this relation that connects universals seems ad hoc.[112] The suggested necessity is taken for granted for those relationships that are already spotted. In this case, the extrinsic necessity does not help us distinguish between accidental and genuine regularities due to the fact that giving a relationship the status of law is not sufficient to prove its reality.[113] In this view, therefore, causal necessity between two universals is taken for granted as unanalyzable reality.

Equally important is the ambiguity concerning how universals apply to their instances. Since laws are contingent, the relation must tell us more about the rules of application. As I mentioned above, things themselves do not seem to have any characteristic properties, as they are only instantiations of universals. In this case, objects must be ontologically empty. How are they prescribed to the same particulars as different universals? Even though Armstrong admits that not all objects are the same with respect to the instantiation of the same universal, he does not offer any good reason to believe that objects have properties prior to application of universals so that there may be a matrix in which instantiation is regulated. Al-

[112] John Bigelow, Brian Ellis, and Caroline Lierse, "The World as One of a Kind: Natural Necessity and Laws of Nature," *The British Journal for the Philosophy of Science* 43, no. 3 (1992): 378.

[113] Mumford, "Laws and Dispositions," 473-474.

Ghazālī and Descartes postulate more straightforwardly by saying that things are basically property-free structures, be it atoms or geometrical particles, and laws contingently bestow them with properties. But this postulation is not baseless.

The reason al-Ghazālī and Descartes postulate that laws are prescribed is that they think the necessary structure of reality depends on God's will. This postulation allows them to attribute all events to the divine act of creation. They could reply to the objections above by simply referring to God's will. The necessary relationship between being a cat and being a mammal holds because God wills so. Again, there is no necessary relationship between being a cat and being a stone because God wills so. Furthermore, their postulation helps eliminate the ambiguity of how universals relate to their instances. God's edict works the same way between the universal and the particulars as it does between God and the universals.[114] Even if their appeal to divine will does not change the fact that the supposed necessity is ad hoc, their strategy works well to reduce the level of arbitrariness.[115] Armstrong's model is less convincing because it lacks such a single source of laws. In fact, the regularist critics that charged Armstrong with replacing the classical omnipotent God with causal necessity are not totally baseless.[116] If laws of nature are prescribed,

[114] Al-Ghazālī speculates that this medium could be angels. Otherwise, he seems to be a nominalist, as convincingly argued in İsmail Hanoğlu, "Gazali Düşüncesinde Nominalizm ve Eşyanın Hakikati Sorunu," *Birey ve Toplum Sosyal Bilimler Dergisi* 2, no. 3 (n.d.): 85–87.

[115] Ott, *Causation and Laws of Nature,* 1.

[116] John W Carroll, *Laws of Nature* (Cambridge: Cambridge University Press, 1994), 2.

it is reasonable to ask who the prescriber is. The model that includes a prescriber would be more tenable than the one that does not.

All in all, causal necessity does not really explain the integrity of nature when it is taken to be extrinsic to nature. A theological move as in Descartes and al-Ghazālī could help provide a more convincing picture of reality, but it does not eliminate the arbitrariness introduced by extraneity of the causal explanation. A regularist would claim with reason that here the supernatural element is used to fill an epistemological gap. The second kind of necessitarian believes that the integrity of nature can be explained without appeal to the omnipotence of God. If the causal necessity is intrinsic to the objects, the integrity of nature is explained by their interactions.

C. Intrinsic Necessitarianism

As was pointed out in the previous section, necessity has been treated in two distinct ways. Some thought that causal necessity is extrinsic to nature, a view according to which laws of nature are contingently necessary. We have already analyzed this view. In contrast, some necessitarians argue that causal necessity is intrinsic to nature. That is, necessity resides in the dispositions of objects. This is more or less to say the same thing as Aristotle did where he argued that the existence of an object is impossible without potentialities. According to this view, dispositions of an object are necessarily revealed under certain conditions. It is impossible for an object to react differently when antecedent conditions remain the same. The chief difference between this and the previously analyzed kind of

necessitarianism lies on the fact that the latter takes the lawful connection between cause and effect as an external relationship while the former takes it to be an internal one.

This view suggests that the necessity is involved in the causal interactions as a consequence of the property individuation. In Shoemaker's analysis of the concept, the conditions that bring about a property (backward-looking features) plus the conditions that are brought about by this property (forward-looking features) necessarily give way to individuation.[117] In other words, properties of an object are individuated because of the causal features they confer. To illustrate, the object cat exists due to the conditions that bring about a cat, like parents and other organic requirements, as well as the conditions it brings about, like its meow. The object cat cannot be the same without having parents nor the ability to meow. The chemical composition of the cat which is the result of the antecedent conditions and the cause of the consequent conditions is essential to it. So, the property of being a cat is individualized if and only if it possesses certain dispositions that confer causal features, which are embedded in its essence and may or may not be actualized.

The important point to notice in this characterization of necessity is that objects are naturally individualized by their causal features. In this case, natural kinds are necessary. The intrinsic necessitarian requires objects to satisfy conditions to be a distinct object. An example from inorganic chemistry would be

[117] Shoemaker, "Causal and Metaphysical Necessity," 67.

less confusing. The property of being copper must satisfy the condition -among others - that its atomic number is 29. Regardless of our identification of it as a distinct element, being copper must satisfy this condition if it is to be a distinct element. It may be the case that we confuse it with another element because we misidentify its essence. However, this does not alter the fact that copper must have atomic number 29 to be copper. Thus, individuation is not only an epistemological but also a metaphysical principle.

Can copper have a different atomic number? No, not if its paradigmatic feature is having the atomic number 29. The idea here is best captured in Shoemaker's remark that "these phenomenal features are being produced by the same underlying constitution."[118] That is, copper can transform into something else under the influence of certain powers, but it cannot remain as copper since its essence has altered. Similarly, an element displaying all the apparent causal features of copper will not satisfy the requirement for being copper unless all its causes and effects are the same as copper and its underlying structure is exactly the same. Suppose we discovered an element that somehow functions exactly like copper. It will still be a different natural kind because it is not an instance of the natural kind copper unless it shares the paradigmatic feature of having the atomic number 29. Thus, copper is a natural kind that is ontologically distinct from other natural kinds. Notice, our supposition is just a figure of speech. In reality, there cannot be found two structurally distinct elements which produce identical effects under the same

[118] Shoemaker, "Causal and Metaphysical Necessity," 69.

circumstances. From this, it follows that the property of being copper has the same necessary structure in all possible worlds.

Another way of saying this is to emphasize the role of causal features for the essence of an object. In this reading, the emphasis is on the fact that none of the features are arbitrarily there. If an object exhibits certain causal features in a setting, this is only because these features have already been there, embedded in the essence of the object. Just like Aristotle's characterization of active and passive powers, the fire has active power to burn paper while the paper has passive power to be burned. Without these active and passive powers which confer causal features, being fire and being paper would not be possible. If we were to suppose that paper does not catch fire in certain circumstance, the necessitarian would argue that there must be an extra causal element involving in the event and prevents the burning from happening. As Ott illustrated:

> "a world in which fire fails to burn paper is a world that lacks either fire, paper, or both."[119]

From this point of view, all properties in the actual world are necessary as they are, and this fact cannot change.

If this is true, then the regularist might ask if it is possible to conceive a healthy cat being unable to meow, or, copper being unable to conduct electricity. Of course, we can imagine cases in which both cats and copper fail to produce effects

[119] Ott, *Causation and Laws of Nature*, 14.

that they do under certain circumstances. We already discussed that imaginability is not a real threat to causal necessity. Then the question is more significant if it is asking for an explanation of the cases where cat's meow or copper's conductivity are prevented. Is it not possible for copper to act differently in different circumstances? For the necessitarian, this is still not a very challenging question because the regularist overlooks the significance of 'normal circumstances' that we draw to distinguish causal features of an object. To detect and report its characteristics, we isolate causal features that are conferred by copper. Thus, although the electrical conductivity is always a feature of copper under certain circumstances, this does not negate the fact that copper has the power to conduct electricity. In fact, we yield to the expression 'under certain circumstances' just for the sake of epistemic progress. Acknowledging the complexity of expressing causal interactions does not yield the rejection of the necessary structure of causation. What the necessitarian has to admit is that there is no fully isolated and unconditional causal feature that could be attributed to a specific natural kind. In fact, his admission will be nothing short of admitting with Avicenna that there is no object which is not in relation to anything else. Otherwise, one is to suggest unreasonably that causal features are conferred no matter what.

If intrinsic necessitarianism is true, what is the status of laws of nature? Does knowing how things necessarily behave in certain causal settings ensure nature's reliable and uniform functioning? The necessitarian's answer will be affirmative. In this view, laws of nature are not abstract entities that activate otherwise feature-free passive objects. This is how necessitarianism is construed in external terms. For

the intrinsic necessitarian, objects are always actively involved in causation even though they simultaneously have potentials to behave differently in different circumstances.[120] Laws, thus, are not imposed upon them from above. Rather, laws are the consequences of the interactions between active and passive powers of objects. The regularity in nature is explained as a product of the causal features of each essence. The direction of explanation, therefore, in contrast to the external necessitarian's top-down approach, is bottom up. Given production of laws by natures of objects, causal necessity can be attributed to properties instead of laws themselves. Relying on properties of objects renders laws of nature redundant to account for causal necessity.

The success of this account depends on how necessity is construed. Aristotle thought that the natures of things could be discovered inductively but justified by means of deductive reasoning. This might imply that necessity involved here is a priori. However, as Kripke maintains, even though causal claims are necessary, they can only be known a posteriori. This does not mean that their claims are weaker than a priori claims. In fact, if it is the case that the necessary connection between a cat and milk is more than an epistemic judgment, then it is metaphysically necessary that they are connected, and this connection is known a posteriori.[121]

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[120] Mumford, "Laws and Dispositions," 478.

[121] E. J Lowe, *The Four-Category Ontology: A Metaphysical Foundation for Natural Science* (Oxford: Clarendon, 2007), 142.

Here, it makes sense to ask whether causal necessity, if it is true, can be reduced to logical necessity as Aristotle and his followers thought. According to them, logic was the ultimate ground of being, upon which substances and accidents interact. Nevertheless, there is little to no proof for the ultimacy of logic in terms of its capacity to comprehend the whole of reality. In the end, logic as a system of reasoning has been constructed over time as a scientific device to deal with reality. It consists of the terms and concepts we take to be justifiably representing reality. Development of multiple logical systems in the recent two centuries has shown that logic is not prior to reality. Logic as we construct it of course may reflect reality in the best possible way. However, our construction of logical terms, systems, relationships is not absolute. If logical constructs are not prior to reality, then causal necessity must be overflowing the logical, or conceptual, necessity. In other words, logical relations including necessity and possibility cannot be found in nature.[122] Essences that confer causal features when interacting with each other are not logical constructs. Causal necessity, in this respect, is not a feature of our propositions or statements. This is true regardless of our limited knowledge of the causal connections between objects.

This brings us to the question of the epistemic status of causal necessity. If it is established that causal necessity is the strongest case of necessity, the concepts of possibility and impossibility must be aligned with it. Possibility, in this respect, has a deeper sense which goes beyond what is conceptually adjusted, or imaginable. So,

[122] Ross, *Thought and World*, 28.

does impossibility beyond what is unimaginable. To illustrate, if it is affirmed that causal connection between a cat and milk is grounded in the ontological structure of reality of cats and milk, the possibility of a pet's formula being nutritious for the cat is also grounded in the same structures. It is called possibility because what other factors that are effective on the newly established connection are waiting to be discovered. In this respect, possibility concerns the possibility of the composition of the properties which confer causal features.[123] If the new connection confers causal features that had never been established, that means that another necessity which is hidden in the structures of objects was revealed. Suppose, the universe has only ten different essences.[124] This means that there are only fifty-five possible two-essence interactions. It could be the case that not all of the ten essences have interacted yet or that involvement of a third essence, then a fourth and so on makes significant changes in the causal features that might be conferred if it were only between two essences. Moreover, it could be the case that any two of the essences may never interact for contingent reasons, but scientists may find out what features they would confer if they are put together. In short, possibility, and impossibility thereof, are as ingrained in the structure of the universe as a necessity.

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[123] Ross, *Thought and World*, 30.

[124] This illustration is inspired by Tooley's thought experiment, which is originally designed to demonstrate that Humean approach to laws of nature does not in fact explain regular interaction between particles. In Michael Tooley, "The Nature of Laws," *Canadian Journal of Philosophy* 7, no. 4 (1977): 667–98.

A corollary to this argument is that the truth value of a proposition about the causal interaction of two natural kinds depends on the necessary connection embedded in the natures of things. In fact, the intrinsic necessitarian has the advantage of justifying his causal explanation. "The thinking that justifies our affirming 'iron rusts' is not what makes 'iron rusts' true. That lies in nature."[125] In other words, the truths are not derived from how propositions are designed. Rather, propositions derive their truths from the necessities in natures of things. In this view, the causal explanation not only enables one to discriminate genuine and accidental regularities but also supports counterfactual analysis. First, it fixes the relationship between the cause and effect by satisfying the truth condition, so that there will not be any confusion as to how accidental regularities are going to be dismissed. Second, it supports counterfactual analysis, because it designates what the truthmaker is in a causal event, so that we are able to establish counterfactual claims. All in all, given its explanatory power, the necessitarian who relies on causal features of objects will have the stronger case for the integrity of nature.

A key point to notice here is that in order to justify his view, the intrinsic necessitarian does not have to hold the view that his knowledge of causes and events are infallible. The causal events, as I previously argued, are epistemological constructs that allow us to simplify, formulate, and abstract the necessary relationships between natural kinds. Even though the connection is necessary under certain circumstances where circumstances can never be known for certain, it is still

[125] Ross, *Thought and World*, 15.

consistent with the necessitarian's claim that copper has to satisfy the property of having the atomic number 29 in order to be copper. As Avicenna remarked, there must always be sufficient reason for a natural kind to come into existence; otherwise, it would merely be possible for it to exist. What necessitates it is the essences involved and the antecedent conditions that overflow our conceptualizations and abstractions. Likewise, openness to deeper necessities is always welcome in his theory because necessity at one level of reality does not negate necessity in a deeper level. If a chemical necessity is discovered to be the foundation of a biological necessity, there is no need to disregard the latter relationship because both would be necessary consequences of the composition of natural kinds. In sum, the necessitarian does not have to operate with an assumption that his knowledge is complete.

That being said, the intrinsic necessity view is not free from vulnerabilities. The point where it displays the most strength can also be read as a weakness. It suggests that all objects have active and passive powers, and in the causal event, the active power of one (milk's nutrients) and the passive power of another (the needs of the cat's body) correspond. In other words, it seems to be that the active power of milk knows how to act on the passive powers of the cat while the passive powers of cat know how to react to the active power of milk. How is it possible that when any two things interact (even in the ten-essence universe), they always seem to know what to do? Suppose two essences which had never come closer are brought together by a scientist. Is there no possibility that there is no interaction at all? This problem emerges when knowledge is constructed as an abstraction out of real

natures of things. Thus, if you focus on the human understanding of nature, it is possible to see all relationships to be like human intentionality. This actually can be turned into an advantage for the necessitarian. He might suggest shifting the focus. If there is intentionality in nature, it will not be a problem for human understanding to exemplify this natural feature. Rather than puzzling about the correspondence of two objects, it could be accepted that human understanding corresponds with natural objects as part of nature. In the final analysis, it is not implausible to think that essences are material intelligible structures that inform each other when they interact. It is true, it would be unimaginable for a medieval philosopher to hold the view that things have actually minds, like humans, determining how they act in certain circumstances. Nevertheless, in an age, when tiny computers have huge capacities for information about interacting with other computers, explaining the relationship between cause and effect as information exchange is not hard to swallow.

A more demanding issue with the intrinsic necessity view concerns the idea of negative causation. The objector will argue that if causal necessity occurs between two objects due to the intrinsic powers of both objects, one's passive and another's active, then we do not have an explanation for the cases where the absence of an object is the cause, or one of the causes, of an event. For instance, the human brain dies when there is no oxygen. In other words, the body is affected by the absence of oxygen. In a parallel way, if your car is missing an airbag, it will probably cause your death. In this case, the objector may argue, there is no object-object relation that could determine the result of an interaction, but rather, there is

an object which undergoes change due to lack of an object; namely, oxygen or the airbag. In response to this objection, the necessitarian could defend his thesis by claiming that any such case where the absence of an object seems to cause anything, there are other objects that are still involved in the process of change. That is, in the case of brain's death, when oxygen stops its functioning, the rest of the objects in the brain function in a different way. Of course, they do not function as before, but their effect would now involve ending the blood flow or blocking the conducting of the neuro-signals to the cells. In the case of the car crash, counterintuitively, it is not the absence of airbags that would kill you. It will, in fact, be the impact of the crash or hitting of your head to the windshield that is responsible for your death. Therefore, the necessitarian would argue, the absence of certain effects does not count as an object to be involved in causation. Necessity flows not from the missing party in a supposed case, but from the parties that are left.

Considered together, the necessitarian who holds the view that natural kinds have dispositions (or powers) that confer causal features offers the most powerful explanation for the integrity of nature. He appeals to property individuation and recognizes that metaphysical necessity is prior to conceptual or logical necessity. When doing so, he acknowledges the limitation of human understanding and does not claim certain knowledge about what necessitates what.

D. Conclusion

In this chapter, I analyzed three views that were put forward to account for the integrity of nature. My analysis demonstrated that the regularism and the

extrinsic necessity view fail to account for uniform and reliable structure of reality. Their suggestion for the metaphysically fundamental entity is regularities and laws of nature, respectively. Neither suggestion succeeds to justify even their own methods of justification. In contrast, the integrity of nature is quite compellingly justified in the intrinsic necessity view that takes powers of objects as metaphysically fundamental and explains the integrity of nature with causal features they confer. In consequence, causal necessity as articulated in this view is the much stronger case than the alternative explanations for the integrity of nature. Unless one constructs an argument against the integrity of nature itself, causal necessity is right at the point in explaining the operations of nature. In this respect, necessity is shown not be restricted to logic. It is affirmed that it is also a feature of the world.

In the chapters that follow, after sketching the theistic understanding of God, first, I present the thesis that God is sovereign, and second, I will demonstrate that God's sovereignty does not conflict with causal necessity in nature.

Chapter 3: The Case for the Sovereign God

In this chapter, I would like to delineate the theistic concept of God. This concept is mainly based on the proposal that there is only one deity. Properties of this deity are formed by employing both deductive and inductive methods of reasoning. The main concern of this chapter is, first, to come up with an effective, if not an exhaustive, definition of God, and, second, to determine an intelligible relationship between the world and God without sacrificing the integrity of nature. To this end, in the first part of this chapter, I will delineate a theistic paradigm and discuss several objections to aspects of the classical theistic concept of God. Problems associated with the independence of God are followed by problems associated with the dependence of the world on God. As we will see, when the former set of problems are properly addressed, the latter set of problems are easier to deal with, if not completely resolved. In the second part, I will cope with the question of whether this concept of God is compatible with the idea of causal necessity. In this part, drawing largely upon Avicenna's analysis of possibility, I argue that the necessity in nature rests squarely with the theistic paradigm.

A. Theistic Paradigm

This dissertation intends to discuss the reasonableness of theistic understanding of creation. Here, theism is taken as an umbrella term, which covers philosophical ideas that are centered on the idea that there is only one God who is

beyond nature. In the traditions of monotheistic religions, it is uncompromisingly suggested that:

(1) There is one God and

(2) He is absolutely independent (a se)

(3) Everything else is fundamentally dependent on God (sovereign).

He is the sole source of all that exists while He has no source for His existence. Sovereignty and aseity constitute the backbone of the theistic paradigm. As we will see, all traditional divine attributes are formulated to conform to God's absolute sovereignty on the one hand and to ensure God's aseity on the other. Pantheism, the idea that God and the world are the same, and deism, the idea that God is not governing the world, are deliberately rejected by theists.

By privileging His ontological status as an absolutely independent being, the way to pantheism is blocked. Pantheism, as a modern appellation, regards God as identical with the rest of existence, which turns out to be saying that anything that exists is nothing but God and, at best, modes of God. In other words, there is nothing outside of God and God is nothing but the world itself. The reason for not allowing this view into theism is obvious: If God and the world are identical, God would be dependent on his parts, even though it is a kind of self-dependency. Furthermore, such a god would hardly be personal in the sense that is proposed by theism; a more theological than philosophical concern. Therefore, pantheism is in stark contrast to

the basic theistic maxim of independence of God, as it is stated in the premise (2) above. In theism, God is unmistakably transcendent.

As far as sovereignty is concerned, theism is at extreme odds with deism. It is not deism because any indication that something/someone else sustains itself existentially and does not need God would violate premise (3). To say that God is one is to assert that there is an ontological difference between Him and everything else. If we call the totality of everything else "the universe", God must then be outside of the universe. On the other hand, deism rejected premise (3) because according to its proponents God has created the world and abandoned it. This view is unacceptable from a theistic point of view because it cancels out the active agency of God and gives all existential power to the world itself.

Then the question arises as to how theists characterize the creator with respect to his creation. If they are neither totally identical nor totally separate, how can one conceive the relationship between God and the world? Theists carry out two basic and complementary operations to accomplish the task of characterizing the theistic God without compromising His aseity and sovereignty. The first aims at distinguishing God from the world, the second aims at relating Him to the world.

B. Aseity

The first operation distinguishes God from the world in order to establish God's absolute independence. This operation is usually carried out by employing negative theology. God is essentially different from all other beings with respect to

His existence and properties. God exists *a se*. It means that His existence is in and of Himself, and from Himself. Nothing bounds Him as to how He is and how He acts. He has to be independent of all composition (simplicity), time (eternity), and change (immutability).

Challenging aseity would cause serious, unfixable problems in the theistic concept of God. First, if God depends on someone or something else, the one that God depends on must be ontologically prior. In this case, the prior one deserves more to be called God than the posterior, since we take the former as responsible for the existence of the latter who is the one that we initially called God. This is a clear violation of the premise (1) of the statement above since it involves two beings being called God. Therefore, a dependent God is by definition not a God. Second, dependence implies limitation. If God resembles limited beings, He will lose His ontological privilege and become like them. The limitation is not compatible with the above definition of God since it entails that God loses His Oneness. Therefore, God's ontological independence is an essential feature of the theistic concept of God.

In theistic traditions, elaborations of God's aseity have given way to three essential divine properties. To establish His independence, the doctrines of simplicity, eternity, and immutability are defended in a complementary fashion. Since the concern is to establish His independence, the way to prove this has usually been taken negatively to draw contrasts with things other than God, particularly with persons. In other words, aseity is formulated to strip from the concept of God any human form. Unlike humans, God cannot be dependent on anything whether

individual parts, time, or change. However, all three properties presume a more fundamental aspect of God: incorporeality.

I. Incorporeality

The ontological uniqueness of God, which warrants His absolute independence, is paradigmatically explained by God's incorporeality. It stands as a paradigm case for theism. Because corporeality (or physicality) would be a limitation on God, He is said to have no physical body. There are many reasons that corporeality is thought to be incompatible with the divine nature. First, physicality, as understood by many ancient, medieval, and contemporary physicists, imposes composition. A physical body is always composed of at least two parts. We do not know any physical being whose structure is devoid of composition even though we currently speculate on the possibility of part-less basic physical entities. Theistic paradigm denies composition in God on the grounds that any composed being would depend on not only on its parts but also the principle that composes the parts. So, if God is corporeal, He would be bound by His parts and the superior principle that brings His parts together.

Second, if God is corporeal, His power and knowledge would be limited as well. This is because material abilities depend on essential features of the matter through which they function. God would have to have an eye-like organ to see, or ear-like organ to hear prayers, or a brain-like neural organ to know the universe, or limb-like organs to act on His creation. However, in order to be able to act on all matter, or to know the universe perfectly, God's supposed physical body would have

to extend to all the physical universe. Otherwise, God would be said to be part of the universe. And this contradicts with the very premise of the independence of God.

If we let God's body to extend to all physical universe, the universe becomes the body of God. This thesis, which has been proposed by pantheistic philosophers, has to rule out the independence of God in exchange for His interpenetration. In the end, proponents of this theses come up with a more concrete but much less powerful God, which is quite incompatible with the basic paradigm of theism.

A third difficulty of assuming a corporeal God involves change. If God is corporeal, like all matter-energy compounds, He has to be in constant change. Nevertheless, if it is accepted that God changes, we would have to accept that there is at least one thing God is dependent on: change. A changing God has limited control over what He is capable of or what He knows because His state of capability would be changing necessarily. In one point of the eternal timeline, when He exhausted all possibilities of material change, His change will require Him to be unable to do anything. We suppose there must be such a point because the universe as we know it is finite. Again, if His knowledge is in flux because of its materiality, at one point, He would know everything and then change will force His knowledge to decrease. Can we suppose that His knowledge changes in some respects but not in others? We cannot unless we affirm an internal complexity in God. In both cases, change in God would lead to contradictions in terms of the concept of God.

An objection to the last point has come from panentheistic philosophers of the 20th century. They accepted the characterization of an incorporeal God, but they

refused the claim that God's incorporeality entails His absolute, unchanging power and knowledge. For them, God knows about things that are possible to be known at any particular moment. Panentheistic God learns from His creation. He has the power to act as long as it is possible for God to act. He has influence over the universe but not determining power because His reality is in turn closely tied to the reality of the universe.[126] He is perfect, but not ultimately perfect. His perfection is ever growing.[127] Even though for panentheists, God has also a distinctive transcending nature, this does not make Him superior to the universe because the universe also transcends God. That is to say, not all the features of the universe is carried also by God. If God and the universe are ontologically interconnected, there is a common ground on which they coexist and perform creative activities.[128] Panentheist philosopher Hartshorne labeled this coexistence as sympathetic dependence. Thus, in respects to both knowledge and power, God is ultimately bound by a superior force that provides the existence of the universe and Himself and holds them together. In this regard, as far as God's independence is concerned, the panentheistic paradigm does not fall in a better place than the pantheistic one.

Another difficulty in holding to God's corporeality is very closely linked to the third point above. Time is necessarily involved if the question is about change.

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[126] Niels Henrik Gregersen, "Three Varieties of Panentheism," in *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*, ed. Philip Clayton and Arthur Robert Peacocke (Wm. B. Eerdmans Publishing, 2004), 19–35.

[127] Gregersen, "Three Varieties," 32.

[128] Gregersen, "Three Varieties," 34.

There is no change without there being a time when something is in the form of Y and then a later time it takes the form of X. This can actually be regarded as the basic definition of change. That is to say, there are at least two sequential moments in which Z is different in each, taking forms of Y first and X later so that we can say that Z has changed. God is thought to be eternal since there is no change that we can apply to God. God is not subject to any different forms of Y or X so that we could assume there is a time –or sequence- between these two forms. This is in line with the Aristotelian understanding that time is the measure of change. He is not subject to change, so there is no reason for us to think of Him as within time. God is not only beyond time but also considered to be the creator of time. Therefore, in the theistic paradigm, He is not bound by it, but time is bound by God's creation.

Once God's incorporeality is established, attributes of aseity can easily be drawn from what we already have discussed. For all three attributes concerning the aseity of God, namely simplicity, immutability, and eternity, the central point remains to make sure that God is independent. From the aspects of the aforementioned attributes, God must be free from anything that could limit Him.

II. Simplicity

It is asserted that God is simple because if God is composite, he would depend on his parts and the composition. What's more, His parts and the composition of these parts would be more fundamental, hence more needed, for His existence. The concern for simplicity entails not only rejection of separation of divine attributes for God but also the elimination of the difference between God's

essence and his attributes. First, attributes of created things are separated because they have different objects. I can know things but my power to act is a different attribute of mine than my knowledge. God's knowledge and power cannot be separated by their objects. The power and knowledge of God have the same objects. Second, our attributes cannot be identified with ourselves. I am not my ability to write. If God and, say, His knowledge are different entities, then God is dependent on something else: there is something that makes God God. Since this God-making feature, knowledge, is an addition to God's essence, then God depends on this feature to remain as God. This result is not acceptable from the theistic point of view because it gives way to the problem of multiple divinities. Avicenna states the third meaning of simplicity. For him, God's essence and existence cannot be separated, or, unlike any other being, God's essence is His existence, since the essence of a substance needs someone to bestow existence. But in God's case, there cannot be anyone else to bring God into being by adding existence to His essence. All three meanings of simplicity are designed to put God in extreme contrast to everything else.

Alvin Plantinga raised an objection to the doctrine of simplicity on the grounds that it ultimately reduces God to a mere property. He said that if all properties of God are identical, then there is only one property of God. And if God's properties and nature are identical, Plantinga contends, then God is this nothing but this property. As a property, God cannot be a person but an abstract object. He has

no knowledge or will or love in the sense that theism deems God to have.[129] Another objection is raised by Thomas V. Morris. He maintains that if God is simple, we cannot make a distinction between His necessary attributes and His actions with respect to contingency. Part of what he worries about here is that if we embrace the doctrine of simplicity, God's free act of creation is in jeopardy. God is omnipotent, which is a necessary attribute. But God's creation of our world is a contingent truth about God. He could not have created any world at all. If we endorse the doctrine of simplicity, then God's creative act must exhaust all divine knowledge and power.[130]

Are these worries legitimate? Is divine simplicity threatening the personality of God as Plantinga warns us? Or, is it robbing God's freedom as Morris is concerned? As we noted earlier, the doctrine of divine simplicity is part of negative theology. It is not designed to describe God. It is not supposed to deliver a positive understanding of God's nature. What does this really mean? It means that with respect to certain aspects of the concept of God, we develop a 'negative' understanding of what God is not. But it is still an understanding. Just like we know that there is not a second moon rotating around the world, and this is a piece of information about the world, part of our knowledge consists of negations. If we know that Hagia Sofia is not in Bloomington, because we know Hagia Sofia and we know Bloomington, this does not require us to know where Hagia Sofia actually is.

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[129] Alvin Plantinga, *Does God Have a Nature?* (Milwaukee: Marquette Univ Pr, 1980), 57.
[130] Thomas V Morris, *Our Idea of God: An Introduction to Philosophical Theology* (Downers Grove, Ill.: InterVarsity Press, 1991), 113.

The fact that it is in Istanbul is a different piece of information than the fact that it is not in Bloomington. The references to both pieces of information are the same: the location of the mosque. But one piece of information concerns where it is not while the other one is about where it is. The necessity that both statements must be consistent in order both to be true does not mean that their contents are the same. If what we say here is true, then we can apply this reasoning to our concept of God as a simple divine being. God's knowledge and power may refer to the same thing: the nature of God as the source or as the creator. However, their contents deliver different meanings, even though the content of one statement is in negative. When we say that God's knowledge and power are not distinct, this statement itself is delivering a meaning distinct from what we know about God's knowledge or power separately. In this regard, as long as they can form a coherent whole, the attributes of God can be separate with respect to divinity's relationship with the world, but at the same time, they all may refer to one single, though negative knowledge about God. Then, God can be said to be absolutely simple and a person at the same time. Thus, Plantinga's worry that simplicity reduces God to a property proves unfounded.

Removing Morris' worry is more important for the present study. If God exhausts all His attributes of knowledge, power, goodness to create our world and all that there is, then it is hard to expect God to react to His creation or to make any changes in His creation. What is worse, He is not able to choose between creating and not creating. To refrain from this conclusion, Morris resolves that:

> "God necessarily is a knower. God contingently has the knowledge that I have on a striped shirt. Thus, there is both necessity and contingency with respect to God. And there seems to be no other good way to capture this truth than to say that God has both necessary (essential) and contingent properties. But if that is so, then he cannot 'have' just one and only one property, a single property with which he is identical."[131]

The main concern here is to keep God's relationship with the world while not eschewing His absolute being. Nevertheless, for this concern, simplicity does not need to be sacrificed. As Timothy O'Connor shows it, in the case of humans, the agent changes as he or she implement their intentions. In God's case, however, we do not need a change in the agent. This is because, for human agents, a contingent state of affairs requires pre-established conditions to obtain (including intentions and beliefs). However, for God, to create or to act, all actions share the same status as contingent without needing any prior set of conditions. None of the obtaining possibilities would entail internal change because there is no feedback. God's reasons to create is the same as His will to create and it is the same as creation itself. Therefore, divine simplicity, let alone robbing agency from God, provides theists with a clearer concept of divine action. If God created the world differently, or have not created it at all, the only difference would be in the contingent order, not in God.[132]

III. Eternity

As closely linked to the doctrine of simplicity, eternity is also an indispensable attribute of a theistic God. First of all, time implies limitation. One

[131] Morris, *Our Idea of God*, 117.

[132] Timothy O'Connor, "Simplicity and Creation," *Faith and Philosophy* 16, no. 3 (1999): 412.

does not have the power to determine the past nor to determine the future as long as he is in time. For someone who is in time, the only reality is the moment in which he lives. Thus, time restricts one in two ways: past and future. God must be free from this restriction. His knowledge must encompass past and future as well as the present moment. His power must reach beyond the moment and determine –at last- some future events. Second, and more important for our discussion, if God were subject to time like other beings, time would become an entity which is ontologically prior even to God. This priority, in turn, undermines God's privileged status as not only an independent being but also the being on whom everything depends. Even though there is a long tradition of discussing whether God is above time or within time, no theistic argument goes so far as to speculate that God is subject to time. In contrast to Aristotle's idea of time, according to which time exists independently from the Prime Mover, in the theistic paradigm, time is not thought to be an independent entity, but either an element of God's mind which is reflected in the creation or is something created and attached to the whole creation. In either case, God is not subject to the passing of time. Otherwise, we would have to regard time as another divine being, and this would be inconsistent with the first and foremost premise of the theistic paradigm.

Nonetheless, not all the theists share the same idea of God's eternity. Some think that God as being outside of time is inconceivable from a theistic point of view.

For Wolterstorff,[133] for instance, if God is totally outside of time, He could not have any real relationship with its creation which is fundamentally temporal. In this line of reasoning, when x is in relation to y, both x and y must share aspects within time. God's actions seem to begin in time and end in time. Thinking God as eternal and the world as temporal leaves no room to make this connection between the creator and creation. God must be in time in order to participate in the real becoming of the world. For this reason, Wolterstorff concludes, God must be considered everlasting rather than eternal. That is, He has no beginning nor end but He is still in time. In this way, God may be thought to in a real relationship with the world and act on it when He wills as in the cases of miracles, answering prayers or revealing His words to the messengers.

Another objection to God's eternity stems from a similar aspect of God's relationship with the world. If God is eternal, His knowledge of the temporal events lacks a considerable amount of tensed facts.[134] That is to say, even though we admit that God knows temporal events in eternal form, there are still a great many things left unknown by God as they are specifically related to the temporal order. Timeless knowledge is not enough to be omniscient. If God is everlasting, His knowledge of temporal things could be tensed and lacks no aspect of that which is known.

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[133] Nicholas Wolterstorff, "God Everlasting," in *Contemporary Philosophy of Religion*, ed. Steven M. Cahn and David Shatz (Oxford University Press, 1982), 183.

[134] William Lane Craig, "Divine Eternity," in *The Oxford Handbook of Philosophical Theology*, ed. Thomas P Flint and Michael C Rea (Oxford University Press, 2011), 145–66.

Neither of these assertions is easy to deal with. The emphasis of theistic religions on God's sovereignty seems to be demanding a temporal relationship between the creator and creatures. Then we should ask whether assuming temporality of God would do any harm to the oneness of God. As I mentioned above in passing, as long as time is considered a fundamental aspect of God, not an independent being, there is no difficulty to consider God as acting in time and knowing events in their temporality. Time could be an aspect of divine mind and is reflected in creation. However, if time is an aspect of physical order, as contemporary physics suggests, there is a massive obstacle regarding God in time. Time cannot be a part of physical reality and an aspect of God's mind at the same time because this would be equal to saying that width, height, and depth are also aspects of God's mind. In order to save God's aseity, we have to assert that God is outside of time as He is outside of physical reality.

From this, we speculate that if God's incorporeality does not pose any problem for His active involvement in physical reality, His eternity does not pose any problem for His knowledge of the tensed facts nor His active engagement with His creation. One has to either reject God's relationship with the world altogether or acknowledge that God's mode of being does not preclude His atemporal relationship with temporal events. When we allow that God can relate to the corporeal beings without Himself being corporeal, we accept that He can have real relationships with things even though they are essentially different. In this case, we ought to say that God's eternity is the more likely case than His everlasting presence in time.

IV. Immutability

It should be inferred from all we have discussed by now that God is immutable because there is nothing that could require God to change. Medieval philosophers thought that an absolutely simple being cannot change since there is no separate part to change and another part to retain the identity of the changing being. If God as an absolutely simple being changes, He must change from one entity to another wholly different entity. Even if we allow such an essential change in God, the extreme difficulty in conceptualizing a sequence of completely different Gods will preclude us from such a thought experiment.

It can be claimed that allowing a change in God would mean that God is either changed by an external power or by Himself. If an external power is acting upon God, this power needs to be God-like. This is also violating the very first premise of the theistic paradigm that there is only one deity. However, if God's change is motivated by His own divine nature, this does not seem to be a problem from a theistic point of view.[135] Then the question is whether God can change Himself.

An Aristotelian argument runs counter to the possibility of internally-motivated change. It is based on the premise that God is pure actuality. It proposes that intrinsic changes occur when there is potency in the changing subject. If God is

[135] I should thank Huseyin Arslan for drawing my attention to this point in a private conversation.

fully actual, then there is nothing in Him to change. He is, but He never becomes. Thus, God is necessarily changeless.[136]

What is affected by God's having no potency? Divine knowledge and Providence take the lead. If God is immutable, God's knowledge is the same throughout all times, past, present, and future. The content of omniscience is never what is knowable, it is only what is known. In this case, God does not learn anything over time but knows everything eternally and immutably. In this case, one can object that such a God is unintelligible because if the present time is constantly changing, the knowledge of it is also changing with it. Either He knows the present time and He is changeable, or He does not know it, thus He is not omniscient.[137] Brian Leftow raises an objection to this line of argument by claiming that those that happen in time are extrinsic changes. Change is extrinsic when the subject is not affected intrinsically. When someone who is sitting on my left changes her place, I will no longer be the one sitting on her right. This does not mean I have changed. It is in her that real change takes place. What has changed is only a relation, not the subject itself. Extrinsic changes do not depend on intrinsic properties of the changing subject. Leftow elaborates that "even if this did rest on acquiring a new relational property, this would not realize a potency of God."[138] Paul Helm also

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[136] Brian Leftow, "God's Impassibility, Immutability, and Eternality," in *Oxford Handbook of Aquinas* (Oxford University Press, 2012), 173–86.

[137] Norman Kretzmann, "Omniscience and Immutability," *Journal of Philosophy* 63, no. 14 (1966): 414–421.

[138] Leftow, "God's Impassibility," 176.

argues that all tensed knowledge can also be expressed in tense-less form. Thus, as long as one admits that God's knowledge of the present time is in the form of tense-less expressions, there is no difficulty in accepting that God can be both omniscient and immutable.[139]

God's providence is also seen as problematic when we want to prove that God is immutable. For Swinburne, God cannot be free if He is unable to change. A provident God is one who has freedom and responsiveness. If He creates this world and remains unchanged, there is no way He could be free to answer our prayers or react when necessary. If immutable, God is limited. If He will not respond because He has no freedom, we can hardly call Him a god. He is at best reduced to a mere metaphysical principle.[140] In other words, if God could not change to respond to the appeals from his creatures, He is not provident nor free. Thus, He is not a personal god. Besides this theoretical level, for Swinburne, we also have a particular evidence against immutability. Creation itself is a change in God because temporal becoming is almost universally accepted as unchangeable. Changing what is past is beyond the power of any being including God. In this case, God needs to change accordingly to act on His constantly changing creation. Thus, in order for one to assert God's personality which entails His freedom and responsiveness, he has to allow a change in God.

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[139] Paul Helm, *Eternal God: A Study of God Without Time* (Oxford University Press, 1988), 76.

[140] Richard Swinburne, *The Coherence of Theism* (Oxford University Press, 2016), 217.

In response to this objection, one can argue that God's responsiveness does not require Him to change. All responses to creaturely demands are projected in divine eternal knowledge and when the time comes, they receive appropriate answers. Nevertheless, this response may save God's immutability at the expense of creaturely freedom. No one is free if his action is projected and responded to prior to the action. Another response concerns the structure of responsiveness. It can be claimed that to respond is to act according to someone else's demand. In case of creature's demand and its effect on God, there occurs a demand, an act which has a proper effect. Therefore, even though God would have known the creatures' demand and His response is set eternally, the basic requirement of responsiveness is still satisfied. However, this semantic explanation is also far from being adequate because there seems to be no change occurring on neither side of the action, God or the creature. Everything has already been determined whether they are in the form of requests or of responses. It is very hard to call this a real responsive relationship.

Does God's responsiveness remain a major challenge to God's immutability? One more reasonable attempt can resolve it by taking God's responsiveness not in time but in possible situations. In other words, if God immutably has all possible responses to all different appeals, then the demand for divine responsiveness eases. It might be the case that when someone prays, one appropriate response is given to him from a vast repository of responses. In this model, neither God needs to change nor is the appeal of the praying agent left unanswered.

With regard to His freedom, Swinburne misconceives the requirements for freedom. By choosing to take a bus this morning, I missed the chance to drive to campus. Since I missed this chance, there are a number of possible outcomes that I also missed. For instance, I missed taking a shortcut. However, it is still in virtue of my freedom that I missed that. My past choices were free, and I freely chose to miss taking a shortcut. So, as long as they result from my prior free choices, the necessary restrictions on my later actions do not count as that I lose my freedom to act. In parallel, God is still free as long as His restrictions have been chosen by Himself. He has the same power and knowledge as before, thus the same freedom, but He chose earlier not to use it in a particular way. Therefore, freedom does not entail unlimited options at all times.

Before moving to the second operation, we need to consider one longstanding challenge to God's aseity. Is God free from logical necessities? We can think of God as independent of change, time, or composition, but we cannot think God –or any other being- as independent from logical structures. For most theistic philosophers, logic is the limit where anything can be rightly conceptualized because, as is the case for notorious Cartesian thesis, freeing God from logical constraints can damage the whole theistic paradigm as well. In this case, God must be thought to be in line with logic, either by taking logic to be God's mind or His decree. I will elaborate this relationship further in the discussion to follow.

When God's simplicity, eternity, and immutability are taken together, the theistic God has to be incorporeal. His incorporeality is a paradigm case for

conceiving God as an absolutely independent being. No spatiotemporal, compositional, or material relationship can be incorporated into the concept of the theistic God if one wants to defend coherently the divine aseity. When divine aseity is defended, the transcendent God of theism is not very hard to conceptualize. We have seen that there are a great number of objections to each of the aseity-related attributes of God. However, when complementary explanations for each of the attributes assist one to construct a cohesive whole, the basic task of separating God from the world seems to be accomplished.

C. Sovereignty

The theistic emphasis on the independence of God cannot be exaggerated, but it is not the only thing about God of theism. First of all, since only God is ontologically independent, everything else must be different from Him in this respect. Thus, the second operation is to show that everything ontologically depends on the only independent being. This operation is executed by relating God to the world. For the majority of theists, this makes God an agent, namely an intentional being who acts, hears and sees, and who is interested in the affairs of the world and who responds to them.

Nonetheless, relating God to the world is not as easy a task as separating Him from the world. This is so mainly because connecting Him with the world involves more concrete matters. God is different in almost all respects, but how are we going to justify His divinity unless He is an agent *like* a human? This 'like' sparked off intense philosophical and theological debates that lasted for centuries. God's

personality feature is considered particularly important from the religious point of view because special revelation and miracles, which are usually considered divine sources of authentic religion, are possible only with God's active involvement. Theistic philosophers of religion are willing to ensure the agency of God while not sacrificing divine independence. For them, God is a true god only if He is ontologically indispensable for all other beings. Besides temporal creation (creation at the beginning of time) and constant conservation of the universe (or continuous creation), His everyday direct and indirect contact with His creatures have been discussed in great detail. These philosophers sought coherent ways to understand the relationship between God and the world. If God is only an independent being, perhaps like Aristotle's Prime Mover who is not aware of anything else other than Himself, why would anyone bother knowing about Him? In this section, I do not tackle the question how God involves the so-called extraordinary phenomena of the world. In the philosophy of religion literature, these are called "special" divine actions. Instead, in this section, I will specifically focus on the questions concerning God's relationship with the ordinary phenomena of the world. The concern about His personality will be visited at the end of the discussion to show that what I discuss here opens possible interpretations of God's personality feature.

In theistic setting, perfection is the paradigm case for sovereignty. Since the main strategy is to connect the world to God's unparalleled perfection in all respects, the basic intellectual tool for execution of this strategy is to draw analogies. If knowledge is a perfection for humans, then we cannot think of God lacking knowledge. Thus, not only must God be able to know, His knowledge also

must be perfect. Similarly, power (or ability to do things) is a perfection. Then, God must be powerful, and His power must be perfect. Again, He is ultimately good because moral goodness is a perfection. Notice here, the link between God and everything else is established on the scale of perfections. Even though human knowledge is very limited and imperfect in contrast to divine knowledge, it is still a perfection. God is portrayed as the ultimate point on the scale of knowledge. This aspect of divine sovereignty might sometimes cause problems by assuming that the difference between divine and human knowledge is a matter of degree, not kind. This assumption finds its justification in the practice of analogical reasoning. However, as will be clear in due course, the further one practices analogy, the blurrier becomes the line between God and His creation. Let us suffice to say, in general terms, He not only has perfect knowledge but also is the ultimate source of all knowledge. The same line of reasoning can be applied to other two sovereignty attributes power and goodness. In the end, to say that nothing can exceed His power (omnipotence), knowledge (omniscience), and goodness (omnibenevolence) means that nothing can escape from His sovereignty.

The success in drawing a coherent account of divine sovereignty and to address problems associated with it depends on how we characterize the fundamental entity of the world, to which we intend to connect God. In the first section, God is carefully distinguished from the rest of the existent beings. But, what are the existent beings? The next section will identify two alternative ontologies against which sovereignty will be discussed.

I. Alternative Ontologies: States of Affairs vs Things

If God is sovereign, it is reasonable to ask on what God exercises His sovereignty. The question of the proper object of divine power, knowledge, and goodness can be answered either by reference to events, facts, or states of affairs, or by a reference to things, objects, or essences. In the former answer states of affairs are the underlying fabric of reality, while in the latter essences are. That is if there exists a cat, the states of affairs ontology prefers to analyze the obvious fact that there is a cat, while the things ontology prefers to analyze the cat itself. On the one hand, the analyses in the states of affairs ontology tend to be more specific about the temporal and spatial organization of the objects since the spatiotemporal status of the fact is taken to be explanatory for the objects that involve the happening. On the other hand, the analyses in the things ontology are inclined to determine characteristics of the objects by stripping them of their involvement in different events. In other words, the cat is there for both ontologies, but 'there is a cat' is more basic for the states of affairs ontology while the cat itself is more basic for the things ontology.

In the states of affairs ontology, every event is either necessary, contingent, or impossible. It is necessary if it holds in every possible world, it is contingent if it holds in some possible worlds and does not hold in others, and it is impossible if it does not hold in any possible world. A necessary state of affairs must be true in all possible worlds; that is, it is impossible to disregard or replace the affair in question in any possible world. The state of affairs '2 plus 2 equals 4' is necessary. However,

the state of affairs 'the cat in the car at time t' is contingent. That is, there is no logical difficulty if the cat was not in the car at time t in the possible world W. It might be the case that, in the possible world W* there is no cat. Nevertheless, there is no possible world in which '2 plus 2 equals 4' does not hold nor in which '2 plus 2 equals 5'. In this respect, what a cat or a number is is of secondary importance while the cited event between objects is of primary importance. A noteworthy consequent of the states of affairs ontology is that a necessary event is not caused because it must exist independently of spatiotemporal arrangements.

In the things ontology, the primary objects of investigation are objects. The relationship between them comes only later. In this ontology, objects have all necessary features to be themselves, either potentially or actually. Being a cat includes the necessary component of having three ear bones. In this ontology, natural kinds are better recognized by their characteristic features. No cat fails to be a mammal as long as it remains a cat. Nothing can be copper unless it satisfies the requirement that (among others) it has the atomic number 29. Thus, necessity is the property of what exists. In contrast to necessity, non-existence is represented by impossibility. Then, contingency simply refers to potentiality in the necessary structure of things. In other words, beings are not either necessary or potential; rather, they are necessary with respect to their actual state of being, contingent with respect to their potentialities. For instance, on the one hand, laws of nature are contingent, according to the things ontology, in the sense that they are statements about the conditional behavior of certain objects. On the other hand, they are

necessary when conditions are fulfilled. In this ontology, things are caused to be actual, while their forms are considered to be eternally true.

This section has demonstrated that there are alternative ontologies that offer different descriptions of the underlying fabric of reality. Since theism is ultimately an explanation for the entirety of the universe, choosing a fitting ontology for the Ultimate Source of everything would be the right strategy. It is now time to determine which one of these ontologies accommodates sovereignty attributes with the less, if not any, compromise.

II. Omnipotence

Before discussing its tenability, it is necessary here to clarify exactly what is meant by omnipotence. Even though the term has its roots in theistic scriptures, it has grown as a philosophical doctrine over time in the hands of theologians and philosophers. There developed at least two sophisticated accounts of omnipotence. One is the postulation that God can do anything that can be done by someone or something else.[141] The other is the postulation that God is more powerful than any other being.[142] The intuition behind both of them seems to be that God is omnipotent because the power to affect the course of events is a perfection. If God is ultimately a perfect being, He must have the ultimate power. But what does this ultimate power account for? For the majority of theists, God can do roughly anything

[141] Richard Swinburne, "How the Divine Properties Fit Together: Reply to Gwiazda," *Religious Studies* 45, no. 4 (2009): 495–98.

[142] P. T. Geach, "Omnipotence," *Philosophy* 48, no. 183 (1973): 14.

because there is nothing (or no one) to set restrictions for His actions. In other words, according to this intuition, there is nothing that exceeds God's power. Nevertheless, considered in a deeper level, God's power does not account for everything. There are states of affairs that even God cannot actualize. But if He is more powerful than any other being, or if He has the power to do whatever other beings can do, what can restrict God's power?

Finding a reasonable answer this question depends on detecting the main motivation behind limiting divine power. The motivation is definitely not to weaken the divine presence. Instead, it is more intellectual. The reason God is not allowed to do what is followed is that these so-called states of affairs would threaten, first, the coherence of the concept of omnipotence, second, the coherence of the whole concept of God. Let us now see the states of affairs that are cited to be beyond God's power.

First, as I mentioned in passing, God cannot have power over the logically impossible. God cannot make the statement '2 is bigger than 3' true when 2 and 3 have the same numerical values as they do now. 3 is necessarily a bigger number than 2 and the opposite is necessarily impossible. Another common example is the question whether God can create a square circle. He cannot because the expression 'square circle' not only has no reference in the mind but no reference to reality either. Square and circle are the names of two non-conjunctive shapes. It may either be square or circle (or something else) but not both at the same time. This is widely considered to be beyond the scope of God's power. From this, it is inferred that God

creates only within the constraints of logic. An objection to this conclusion has been notoriously raised by Descartes. He thought that God's power exceeds even the logical structures. According to him, God could have created a world with a totally different set of logical rules. This, however, as we said, threatens the theistic project altogether. If it is essentially possible in God that something can be 1 and 2 at the same time, which is an impossible state of affair in our world, then God can be one and two at the same time if conditions allow. It can also be said that God can exist and does not exist at the same time, and so on. To avoid absurdities of this kind, a lot of philosophers like al-Ghazālī, Aquinas, and Maimonides contended that God's power cannot exceed logical necessities. What is logically necessary is necessary eternally, and what is impossible is impossible eternally. However, with this consequence, the question remains as to how logical necessity is related to God.

The second restriction can also be considered a logical issue. Briefly, God cannot create actions of free agents. If a free agent is described as someone who can act or refuse to act, then God's involvement in his action will determine it. In this case, the action is said to be both free and determined, which is contradictory. If God created free agents, it would be impossible for Him to determine what they choose.

The third restriction on God's potency is about time. We have asserted earlier that God is not in time. He is eternal. However, this does not mean that His power exceeds the temporal order. Related to what we have said about logical constraints on God's power, making a change in what has already happened is impossible even for God. Past events are beyond the scope of God's omnipotence. The reason for this

restriction is simple if we follow Thomas Morris' analysis of the concept of power. Morris elaborates on the constituent components of omnipotence.[143] For him, one can have power to accomplish something, but unless they also have appropriate skills, there will be no action. If one has power and skill but no opportunity, there will still be no action. If one has all three, but no practical knowledge to use them, there is still no action. So, according to Morris, one is omnipotent if he has power, skill, opportunity, and practical knowledge. Even though God might be thought to have power and skills to change the course of events and make a state of affairs taking this or that direction when an event occurred he has no longer opportunity to use His power and skills to prevent or alter it.[144]

A fourth restriction is introduced by moral considerations. As we will see later, God is unyieldingly good. He is the source of all goodness. Thus, some philosophers protested, God cannot be both omnipotent and omnibenevolent given the prevalence of evil in the world. If we maintain that God cannot do evil, then we have to accept that God cannot do everything, thus He is not omnipotent. To this objection, it can be replied that as long as it stems from God's nature, not from an independent source, God's being absolutely good cannot be a restriction. It is for us,

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[143] Morris, *Our Idea of God*, 71.

[144] Unless, of course, we can entertain the idea of time travel. As presented richly in science-fiction literature, time travel is conceivable despite innumerable paradoxes it generates. If it is scientifically shown that time travel is theoretically possible, then it will be also reasonable to suggest that God can change a past event to change the subsequent history. In this case, changing past will be different from changing 2+2=4 in theory. However, there is no convincing theory of time travel yet to be adopted in discussions of omnipotence.

as only contingently good beings, doing evil would require ability. For an absolutely good being, the ability to do evil would be considered a defect. By the same token, there are other things that God cannot do. God cannot drink tea. He cannot delete a word on His dissertation thesis. Notice, these are also imperfections. Even though I enjoy drinking tea, it is somehow related to the needs of my imperfect body. It is for survival. God does not survive. He does not need to write a dissertation thesis either. It is a creaturely perfection because it is a way to improve skill and gain intellectual power. Morris' definition of omnipotence has potential to overcome the problems discussed above: "Anything that it is logically possible for a perfect being to do, God can do."[145]

The problem with the aforementioned definition is that it is circular, and, thus does not tell us much about the nature of divine power. It states that God can do whatever possible for God to do. But to say that God has the power to do whatever is possible for Him to do is just to say that God can do what He can do. This is, in fact, true for any agent. Moreover, it fails to overcome the problems issued by restrictions on God's sovereignty. Logical constraints, actions of free agents, temporal constraints, and moral considerations may be justified to be eternal, unchanging, and necessary; but unless they are reconciled with God's sovereignty, their independent existence jeopardizes the whole theistic paradigm. Given their binding nature, the ontological independence of logic, free agency, time, and morality threatens not only the sovereignty of God but also His aseity. If God must

[145] Morris, *Our Idea of God*, 68.

act in accordance with moral standards, for instance, let alone dependence of these standards on Him, it is difficult to argue for His independence. Hence, God seems to be very impotent from certain aspects.

What Morris' and others like him[146] overlook is the fact that God's omnipotence cannot be assessed in terms of His ability to bring about states of affairs.[147] The minor problem with this assessment is that ability -or disposition- denotes potentiality, which in turn implies the existence of some power in the subject which is not actualized. If God has dispositions, like human agents, then it is no wonder that He must be under the influence of other beings, just like human agents. This might be considered an inevitable consequence of the agent causation. However, the major problem with the states of affairs assessment is that God's agency is understood in natural terms when it is put in the 'ability' form. As a result, God is allowed to do what is conceivable within the parameters of natural change, assuming that this might give Him sufficient freedom to create. Nevertheless, the states of affairs ontology posits that the necessary is necessary while the contingent is contingent in every possible world. If this is so, God can do nothing but select which states of affairs are going to obtain from the eternal catalog of contingent states of affairs. Hence, He has no power over what is to be necessary or contingent.

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[146] Thomas P. Flint and Alfred J. Freddoso, "Maximal Power," in *The Existence and Nature of God*, ed. Alfred J. Freddoso (University of Notre Dame Press, 1983), 94-8.

[147] For a lengthy treatment of omnipotence and other divine attributes from the point of view of the states of affairs ontology: Edward R. Wierenga, *The Nature of God: An Inquiry Into Divine Attributes* (Cornell University Press, 1989).

What is more, even if God is free to select what is to obtain among the contingent states of affairs, His selection will logically entail other contingent states of affairs because all states of affairs involve necessarily other states of affairs. For instance, if God wills my hand to be lifted, He must move my arm first. In this case, His sovereignty will shrink to almost a natural agent's potency. And curiously, after all these extra limitations, the definition of omnipotence mentioned above still applies. Therefore, the attempt to determine the nature of omnipotence by discussing its range does not yield to an adequate account of divine sovereignty.

What does the things ontology offer for the solution of the problems stated above? In this ontology, God's power is very different from the powers of natural or human agents. Instead of denoting ability, God's power refers to the dependence of things on God's bestowing of existence. His sovereignty is not exercised by means of other beings, but transparently as the cause of being. The whole reality, mental or extra-mental, concrete or abstract, depends necessarily on His power to bring about existence out of nothing. The necessary structures, causal or logical, with all possible combinations and with all possible interactions between them -so to speak- are coded in the world. God's power is not implemented by bringing about combinations; this is the causation at the natural level. His power is implemented in the being of the world. The relationship between God and the world is so distinct from natural causation, which can be expressed in the states of affairs language, that it is difficult to find a perfect analog in human experience. The closest analogy can be established with the dependence of my anger on my experience of anger. My anger does not exist if I do not experience it; however, I exist without (at least most of the

time) anger. Similarly, the dependence of my sight on my consciousness. The point to make here is that it is an object-to-subject dependence, rather than object-to-object dependence like in the case of an artwork's dependence on the artist. It is also of crucial importance that the relationship is not like the one between an artwork and the respective art because in this case not only the dependent is the art instead of the artwork but also that relationship is between two objects, one abstract one concrete, rather than one object and one subject. In general, unlike anything in nature, God's power does not engage in a reciprocal relationship with an object. It provides the ontological ground on which the objects exist with all their potential and actual features.

To get to the bottom of sovereignty, let me clarify what I mean by ontological ground. Causation in nature, as elaborated in the first chapter, is about changes in the objects under certain circumstances. Consider, given antecedent conditions and its essential features, that the object X undergoes certain changes from the state X_0 to the state X_1. Thus, X's becoming X_1 is influenced by both intrinsic and extrinsic factors. When any of the external factors does not obtain, X may become X_2 under the influence of the different factors. Let X_2 be the nonexistence of the features of X_1. Thus, even though X initially has potential to become X_1 or X_2, in a given moment only one of them obtains and the other fails to obtain. Nevertheless, for any object X and its different states, the ontological ground does not change. A human does not become the color green, nor the number 5 become sweet, as they all are on separate ontological grounds. Omnipotence is responsible for the ontological ground for

every being in the world. That is, if there was no ontological ground, there would be no different states of X, nor X-ship, nor the necessary structure of X.

Hence the difference that omnipotence makes if it is appropriate to call it a difference, is between being of X with all its potential states (X_0, X_1, X_2, and so on) and its nonexistence. I hesitate to call it a difference because there is no change from existence to non-existence, neither from nonexistence to existence. Change is from one state to another if both states exist on the ontological ground provided by the Omnipotent Being. Things that are open to change are appropriately called contingent. They may be in one state or another. If, on the other hand, the ontological ground of a being does not consist in a change of any kind, then this being is actual. Numbers or causal necessity are of this kind. Their actuality, however, should not be mistaken for their ontological independence. They still depend on divine power for their ontological ground.

If this analysis is successful, anything other than the Omnipotent Being depends on omnipotence for its being; causal necessity, logical necessity, morality, free will, or time are included. They may be on different ontological grounds, but the being of each depends on the omnipotence of God at all times. Causal necessity depends on divine power for its existence so that it is constantly effective on essences, rather than being ineffective. Logical necessity depends on divine power for its existence so that it eternally functions, rather than fails. Moral goodness depends on divine power for its existence so that it is put into practice by intelligent beings. Free will depends on divine power so that agent with free will effectively

choose between alternative states of affairs. Time depends on divine power for its existence so that it operates in any change in the world. These statements may sound begging the question, but they actually do not commit any kind of fallacy. For the clarity's sake, if the existence of any of the above is not sufficient by itself for their own being, that is, not ontologically independent from other beings, then it is not hard to conclude that they are dependent. Take logical necessity. If its existence depends on logical structures, then logical necessity cannot be self-sufficient. Take moral goodness. If its existence depends on the existence of a subject who is good, then it is not self-sufficient either. The same thing applies to causal necessity, or free will, or time. Here, we have to recognize that being is the ultimate explanation for everything, abstract or concrete, contingent or necessary, and it cannot be explained but by dependence on an independent being. Since none of them has potential to bring about others, nor to impose organization on them to form reality as a coherent whole, they depend on the only independent being, namely God of theism. The key to understanding this dependence relationship relies on the fact that what they are and what they do depend on nothing because they are not caused, but their existence as such depends on God.

How is this proposal different from Descartes' so-called universal possibilism? If we remember, it suggests that everything -including logical and causal necessities- is ultimately possible, and necessity holds true because God willed so.[148] In this picture of reality, the possibility is taken as the ontological

[148] Plantinga, *Does God Have a Nature?*, 95.

default, while necessity is thought to be a somehow an accidental property. Since it is only an accidental property, God could have made *'2 plus 2 equals 5'* true. This is the extreme version of the possible worlds discourse, as we call it in modern philosophy. It strikes us as obvious that if universal possibilism is true, it is unable to draw support from logic for its proposal that everything depends ultimately on God's will. When he wishes to underline the absolute power of God, Descartes misses its mark. In contrast, I propose that things have their natures necessarily, regardless of their ontological ground. Logic, for instance, has a necessary structure and function, and it squares pretty well with the rest of the existence. It cannot be the case that it may be actualized differently because we know what logic is. There is no potential in logic, there cannot be any change. Similar reasoning can be applied to causal necessity and moral goodness. Their nature is necessary, so they act necessarily. As for contingent beings, states of affairs that seem to represent the necessary truths in the world are only ontological parasites. They are merely logical consequences of real natures. The state of affairs A is reducible to interactions among natures of its constituents S and P, where they could be contingent (or open to change, or potential) or necessary (fully actual) beings.

My proposal is open to the charge of limiting God's power in creating what is necessary. It might be held that any created being has a temporal beginning, and if necessary truths are created, then there is a time when simple mathematical equations do not obtain, or when moral goodness does not hold true. If they do not have any temporal beginning, how does God exercise His power over them? In response to this, I point out that in this ontology, creation does not mean

something's having a temporal beginning. The temporal beginning of a human being can be stretched as far back as the time when her embryo is fertilized. The temporal beginning of humankind can be stretched as far back as the time when homo sapiens are thought to have evolved from homo erectus. However, being of humanity as a natural kind has no temporal beginning. It is as paradigmatically necessary as mathematical and logical equations. Creation denotes dependence of existence on the only independent being, regardless of its being fully potential, partially potential, or fully actual. Thus, we do not have to imagine cases in which necessary truths do not obtain in order to establish God's sovereignty over them.

In summary, I attempted in this section to provide good reasons to believe that the things ontology has many advantages over the states of affairs ontology when divine sovereignty is concerned. Another significant aspect of divine sovereignty is that God knows. Now, I turn to show that the things ontology provides better solutions to the problems associated with divine knowledge.

III. Omniscience

God is omniscient because knowledge is considered to be a perfection. As we know things, we become more cognizant of their reality, and in consequence, we are able to act accordingly. If God is perfect, then He cannot lack knowledge of anything because knowing is better than not-knowing. A perfect being who is ignorant of what is out there is hardly conceivable. A slightly different, but related concern is that if God is ignorant of anything, that thing's ontological status threatens the integrity of the theistic paradigm. If God does not know about some object, the

source of this object must have been something other than God. Needless to say, a separate source of existence cannot be assumed if we want to remain on par with the theistic paradigm. All knowledge is then necessarily accessible to God.

A second reason why knowledge is ascribed to God appeals to God's being a free agent. Ignorance is an obstacle to the action of an agent. If I do not know how to make yogurt out of warm milk, can I still be considered to be free with respect to yogurt-making? No. For God to be absolutely free, He must know everything about anything in existence. Otherwise, His freedom would be robbed.

Even though we had covered some of the issues associated with divine knowledge when we discussed eternity, there are still clarifications due. Omniscience is widely accepted as encompassing every bit of knowledge that can be known. This definition is intended to make sure that God's knowledge is essential, not accidental. He cannot fail to have any knowledge because it is a god-making property. That is to mean, first, God cannot have false beliefs. He is infallible. Second, there is nothing that can escape from His knowledge. These two qualifications help explore the range of divine knowledge. However, they fall short of discussing the nature of it because they operate with a view that divine knowledge, as in the case of divine power, can be assessed in terms of God's ability to know things. As will be clear, the things ontology offers a better understanding of the nature of divine knowledge than what the states of affairs ontology has to offer.

If God's knowledge contains what I am going to do tomorrow, do I still have the freedom to act? This is a central problem with God's relationship with free

agents. As Nelson Pike suggested, if God's knows necessarily what I am going to do, it is necessary that I am going to do it. Thus, it is not up to my free will that I am either going to do it or refrain from doing it.[149] In this interpretation, then, if God's knowledge is necessary, there is nothing contingent in the creation because God knows them necessarily. Even though this is not directly a problem for our discussion of God's creation of nature, the underlying assumption of it is worth mentioning. In this and several other discussions of incompatibility of God's knowledge with human freedom, the deeper commitment is that God's mode of knowing is identical to the object of His knowledge. In other words, if God knows necessarily that I am going to order café au lait in two minutes, I am necessarily going to order it. This is an erroneous reasoning because it fails to distinguish between knowledge of necessary beings and knowing something necessarily. I know that right now this café is open and serving beverages. This knowledge is necessarily true when someone opens it. The café can either be open or closed. But when it is open, the knowledge about it is necessarily true or necessarily false. In other words, there is a contingent fact that makes knowledge about events either true or false. The knowledge about open-ness of the café is not necessary until it is open. Then the statement that God knows necessarily whatever happens in the world does not mean that whatever happened in the world has been determined. In

[149] Nelson Pike, "Divine Omniscience and Voluntary Action," *Philosophical Review* 74, no. 1 (1965): 36.

fact, this would be a self-contradictory claim because if any event is contingent before it obtains, so is knowledge of it.

A possible objection to this point regards the essential difference between divine and human knowledge. Above, the knowledge about the café renders necessary whether the café was opened or kept closed. That is to say, our knowledge depends on temporal facts. However, it is claimed, God's knowledge must be independent of facts. In other words, this objection is based on the assumption that God must know things without being dependent on facts. Even if the café does not exist or will not exist at all, God would necessarily know whether the café is open or closed. Yet, the fact that the café is whether open or closed is the very object of knowledge that God is supposed to know. Therefore, to claim that God's knowledge does not depend on temporal facts is to claim that God knows nothing about facts. In this assumption, He might know all objects in complete ontological isolation if something like this is possible. A café without any contingency, 'an absolute café', is the only candidate for God's knowledge. It should be clear that knowledge of facts is essentially temporal and stripping it from the reality of time results in the singularity of knowledge. Thus, if we take divine and human knowledge as being different with respect to temporality, God's knowledge shrinks to mere abstract ideas.[150]

[150] This is exactly the conclusion Avicenna draws and becomes the target of al-Ghazali's harsh criticism.

Can we infer from the previous conclusion that the modes of divine and human knowledge are the same? The answer is in negative. I only said that their objects of knowledge of the temporal events are the same. However, as we discussed earlier, if God's knowledge is eternal, His knowledge can be tenseless. He knows in eternity that on March 26, 2018, at 8.02 pm, the café I'm currently sitting will be closed. This fact is a future contingent for me, but the eternal truth for God if He is outside of time. Our modes of knowledge can be different because of our ontological relationship with the same object.

Then, what does 'God necessarily knows' mean? It means that whatever is there as an object of knowledge, God must know it because He is the source of its existence. God does not learn. Mine is different. I know things contingently because I learn about them. The café is open or closed regardless of my knowledge of it. My knowledge about its being open or closed is contingent on whether I came to see it, whether I had healthy eyes, and so on. But God knows everything necessarily because whatever exists must be known by God.[151] Therefore, God's necessary knowledge is His mode of being, not a qualification of what He knows.

This brings us to the question of necessary truths. The café's current status may change, and it does not require God to change His mode of knowing. He necessarily knows it anyway. However, one plus one equals two regardless of whether one knows it or not. Is this also true with God? Differently stated, are

[151] William Lane Craig, *The Only Wise God: The Compatibility of Divine Foreknowledge and Human Freedom* (Grand Rapids, Mich.: Baker Book House, 1987), 74.

necessary truths true independently of God's knowing them? For Descartes, for instance, "God establishes the eternal truths, and they are dependent upon him for their existence and properties. This suggests that it was within God's power to refrain from affirming the eternal truths."[152] However, if this universal possibilism is true, as Alvin Plantinga coins the term, we have to identify God's mode of knowing with the objects of His knowledge. Nevertheless, I argue that God's knowledge of necessary truths is necessary, just like His knowledge of contingent truths is necessary. God necessarily knows the necessary truth that two plus two equals four, just like God necessarily knows that the café is currently closed even though it might have been open. He knows necessarily whether the object of knowledge is necessary or contingent. Consequently, necessary truths are not independent of God's knowledge while at the same time they are not 'essentially' contingent as Descartes deemed them to be. They are both dependent on God and 'essentially' necessary.[153]

Failure to take sovereignty attributes as relating God to the world causes some difficulties. In an attempt to show that the concept of God is inherently inconsistent, Anthony Kenny discusses the compatibility of the attributes of God and concludes that the God of the philosophers, as he calls it, is an incoherent concept with respect to two divine attributes with which he primarily deals. For him, if God

[152] Plantinga, *Does God Have a Nature?*, 99.

[153] This conclusion is also compossible with the main concern in Plantinga's argument. Plantinga wanted to save God's sovereignty without sacrificing necessary truths. If my reasoning is not mistaken, it is still true that God has created everything distinct from himself, and it is still true that necessary truths are 'essentially' necessary.

is omniscient as traditionally understood, He cannot be immutable because knowledge is inescapably time-bound and as time changes the content of knowledge also changes. As the content changes, so do the knower. Kenny also argues that unless one defines God's omnipotence as "has every power which it is logically possible for a being with the attributes of God to possess,"[154] it is also an incoherent concept.

The problem with Kenny's analysis is based on his supposition that:

> "Omniscient and omnipotent are not predicates whatever significance these predicates which were in use for application to human beings and were then ascribed in some transferred or analogical sense to God: they express concepts which were devised to represent uniquely divine characteristics."[155]

This is not true. We may not fully understand the limits of omnipotence or omniscience, but we humans are definitely familiar with the concepts of knowledge and power. Envisioning them in divine scale does not turn them into 'divine-only' features. I easily understand what knowledge means, and I acknowledge that my knowledge is imperfect since I acquired it in time and it is subject to change as long as I am alive. And from this, I analogically attribute knowledge to God and affirm that His knowledge must be eternal, simple and immutable. The reason I attribute knowledge to Him is that I take knowledge to be perfection. I think that a perfect being has to have perfect knowledge. Therefore, even though His knowledge is

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[154] Anthony Kenny, *The God of the Philosophers* (Oxford; New York: Clarendon Press; Oxford University Press, 1979), 98.

[155] Kenny, *The God of the Philosophers*, 5.

perfect, thus different than mine, it is still knowledge. The same line of reasoning is also true for omnipotence. If I see power as perfection, my concept of Perfect Being cannot lack this perfection. God is all-powerful because I have a certain kind of power, and it is imperfect. Analogical reasoning is at work for both attributes.

However, Kenny's intuitions are not completely mistaken. When he articulates his false contrast between divine and human knowledge, the modifiers that he uses for divine knowledge hint at something very important for the concept of God. Kenny says that infinity is the distinguishing feature of divine knowledge. Again, he proposes that omnipotence is not an incoherent concept if attuned to immutability.[156] The modifiers, infinity, and immutability, do not serve as contrasting human and divine knowledge as Kenny assumes, but they serve as accelerating each of these two human attributes to the divine level. Thus, what distinguishes God from humans are not knowledge or power but their infinity and immutability; two concepts that we humans have no analog in our experience and can only know by negation.

It is important to remind here that God's knowledge, as in the case of God's power, denotes dependence, not the acquisition of additional information or develop a new understanding of the subject matter. Known things are intelligently structured to be known by God so that they exist. The order is reversed when our knowledge is concerned. Things are known because they are intelligently

[156] Kenny, *The God of the Philosophers,* 98.

structured. Hence, though limited, we have knowledge of causal necessity, logical and mathematical equations, and so on. In the following section, I deal with the issues associated with the third aspect of divine sovereignty, which is omnibenevolence.

IV. Omnibenevolence

The arguments about God's omnipotence and omniscience must also accord with His absolute goodness. God is omnibenevolent because goodness is the ultimate perfection and God cannot be thought to lack any perfection. God is good, so are His actions. However, there are considerations as to whether God is the source of goodness or goodness as an independent being which forces God to be good. This question was a source of contention in the late antiquity and medieval times. If God has to do what goodness requires Him to do, we are to accept that there is at least one being who overpowers God in perfection. In this case, God would have to pursue goodness to be perfect. On the other hand, if God is the source of goodness, the claim that God is ultimately good (omnibenevolent) loses its ground. The dilemma of the source of goodness is similar to the problem of God's relationship with logic. If we let goodness take the lead, God looks inferior. This is a legitimate limitation for God's ultimate perfection. If we let God take the lead, our ground for claiming God's perfect goodness shatters. One disturbing implication of the latter concern is that God can do moral evil because goodness and evil share the same ontological status before God. Here, the most reasonable reply is given when goodness and God are taken to be in absolute harmony to the extent that God's

existence itself is seen as the ultimate goodness. It is another matter how convincing such an answer would be.

If God as the ultimate goodness exists, how are we going to justify the existence of evil in the world? J. L. Mackie argued that premises (1) God is omnipotent (2) God is wholly good and (3) evil exists are incompatible because any two of them are taken together would the third contradict. An omnipotent and wholly good God would not allow evil to exist since He has everything to eradicate evil. If one sacrifices either God's omnipotence or His omnibenevolence, this can be hardly said a description of theistic God. Mackie reasons that if one cannot sacrifice any of these theistic positions, then there is a firm ground for rejecting the existence of God, as it is a self-contradictory concept.[157] Can theists object this argument by rejecting the existence of evil? This move which might appeal the relative character of some evils will not help, if it is true, explain why anything would seem to be evil. There are natural and moral evils, things or events that we wish not to exist. So, no reasonable theist would entertain this reasoning. However, there are alternative ways to reject the argument.

The basic assumption underlying Mackie's argument is that good always eliminates evil as much as possible. In fact, there is no logical difficulty in accepting both 'God exists' and 'evil exists'. God and evil are not contradictory concepts. Therefore, as Mackie admitted later in his career, the argument does not amount to

[157] John L. Mackie, "Evil and Omnipotence," *Mind* 64, no. 254 (1955): 207.

the impossibility of God's existence. It does, however, amount to saying that God and evil exists, and their conjoint existence calls for an explanation. Here comes the famous 'greater good' argument. It basically says that evil is allowed in the world by God to enable greater good in general. We do not know whether an act of rage results only in moral detriment. Furthermore, a combination of evil and good would add up to something good which is not possible without the existence of evil. Suffering may cause something better. Altruism is possible only if there is selfishness. For Plantinga, this greater good should be 'human free will'.[158] According to free will defense, human's free will is ultimately the best of creation. Human free will is so high in moral value that it counterbalances the existence of evil. Therefore, God is morally justified in permitting evil along with goodness to create free agents.

One might object to that by suggesting that God could have furnished humans with a capacity to choose between good and another good rather than allowing evil to come into the picture. However, as Plantinga puts it, this is equivalent to saying that "God determines free creatures to do only what is right".[159] This is obviously a contradictory act description. One has to have genuine options –like doing and not doing- in order to be a free agent.

If free will defense is successful we have to admit that even though God is omnipotent, He is still unable to control people's choices. This conclusion is

[158] Alvin Plantinga, *God, Freedom, and Evil* (Grand Rapids: Eerdmans, 1977), 30.

[159] Plantinga, *God, Freedom, and Evil*, 31.

seemingly in conflict with the omnipotence thesis characterized in terms of the states of affairs ontology. Omnipotence is thought to be suggesting that whatever happens in the universe happens because of God. Natural or moral events are no exceptions. If even human wills depend on God's agency, then how can they act freely? Plantinga does not comply with this 'absolute' power of God and states that if we are bound by logic in our conceptualization of God, there is no difficulty in accepting that there are some possible states of affairs that even God cannot bring about. Permitting evil to make freedom is one of logical necessity.

What if we are not convinced by Plantinga's characterization of omnipotence? If God is all-powerful, should He prevent evil altogether? In line with the things ontology, some philosophers say no due to the fact that evil is not something to be prevented. It simply does not exist. It is a lack of goodness because there is no such universal as 'bad-ness' to be applied to individual things or persons. Evil, in this ontology, does not have being, rather, it stems from privation of goodness. Even if this is true, we can still ask why God would not fill the whole existence with goodness. In the states of affairs ontology, description of omnipotence requires Him to have enough power to realize goodness in all cases. If He has power and goodness, a believer can definitely expect God to realize it in all cases. Hick and Swinburne answered this question by appealing to humans' moral and intellectual improvement. They said that evil is required for humans to know what is good and eventually to overcome evil by striving. Thus, for them, the greater good is to obtain moral perfection in the presence of evil. However, one might still be curious why God did not create this world without evil in the first place if the

moral perfection is the ultimate objective? Or, why did not He create humans with a priori knowledge of moral goodness as He did with a priori logical and mathematical knowledge? As William Rowe accurately maintains, God should be able to prevent at least random evil without losing the track of greater good or depriving humans of free will.[160]

The problem with Rowe's reasoning, as with Plantinga's, Swinburne's, and Hick's, is that God is taken to be obliged by human moral standards. That is because we ascribe goodness or evil to states of affairs according to their antecedent conditions or their consequences. In human standards, morality presupposes a moral community, in which we are organized by duties and obligations to each other. Individuals are expected to comply with the values that are shared by this community. Duties, obligations, and rights of moral agents are defined in terms of the context in which this community makes sense of objects and actions. Nevertheless, we cannot assume any virtue for God because virtues are dispositions and God cannot have any disposition. He has no potential. Nor can we ascribe any context for God, in which His actions are judged. God is not a member of a moral nor political community.[161] This observation brings us to the very first problem I have stated earlier with respect to omnibenevolence. On the one hand, if God's goodness is derived, thus, imposed upon Him, He must follow it for the sake of perfection. On

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[160] William L. Rowe, "The Problem of Evil and Some Varieties of Atheism," *American Philosophical Quarterly* 16, no. 4 (1979): 339.

[161] Anthony Kenny, *What Is Faith?: Essays in the Philosophy of Religion* (Oxford University Press, 1992), 72.

the other hand, if goodness is God's creation, goodness loses its divine significance to the extent that we cannot even call God ultimately good. Neither is acceptable. So, we have to either accept this dilemma and offer no solution or look for alternative explanations for God's goodness.

If the first way is preferred, it is difficult to argue for the moral standards of theism, which would be detrimental to the whole theistic project of describing reality. Nevertheless, if the second way is preferred, there is a hope to defend a theistic view of morality. For instance, if God's goodness is taken in existential terms and nothing is taken for granted for His moral obligations, as He has none, and if the goodness of other beings is taken in contingent standards, reflecting the order of creation in human actions, we might have a powerful alternative. This might seem to leave us with a creator who is essentially good but has no obligation to be fully good in His creative activity. However, God's goodness needs to be understood in terms of the existential dependence of everything on Him. This understanding does not prevent us ascribing a self-determined goodness in the creative act. On the one hand, If creation itself is an act of goodness, the totality of goodness within creation is not increased or decreased by different sets of creaturely actions. In other words, in the things ontology, creation is the ultimate goodness. Human moral goodness, on the other hand, may be necessary like logical or causal structures, but it also depends on God. Therefore, evil as privation of goodness does not rule out the goodness of God but leaves unanswered the question why there is privation.

As we have seen, various greater good arguments are offered to overcome this difficulty, but none seems to succeed. A possible way out might be found by utilizing the distinction between moral actions as ends and moral actions as deeds. God has no obligation or duty to create, but He creates out of generosity. Moreover, there is no benefit in God by creating the world either. Therefore, it is a selfless act. It is pure act of goodness. Therefore, if God has undertaken to create a world with morally responsible creatures when He did not have to, expecting Him to create it without privations would make no sense. It would not make sense because creating a world morally and naturally perfect amounts to creating something like Him, a god. This suggestion is ruled out by logical constraints since 'god' and 'created' are mutually exclusive concepts.

D. Conclusion

In this chapter, I explored the limits of divine sovereignty and aseity within the theistic paradigm. It has been shown that aseity features of the Divine Being, namely simplicity, eternity, and immutability, provide us with a clear distinction between the Creator and the creation while sovereignty features of Him, namely omnipotence, omniscience, and omnibenevolence, provide us with a clear connection of the world to the Creator. I say they are clean because when we eschew the states of affairs ontology, which offers only a limited account of each divine feature, in favor of the things ontology, many of the vexing problems associated with them will ease, if not completely solved. Discussing the nature of omnipotence in terms of what God can or cannot do proves futile, just like omniscience in terms of

what God can or cannot know, and omnibenevolence what God should or should not do. They may be useful when the scope of each is concerned, but they do not tell us about what divine power, knowledge, and goodness mean. Furthermore, as for the objective of the present study, it has been clear that the things ontology allows one to believe that God is sovereign over everything else including causal necessity. We don't have to permit anything outside of his sovereignty if by creation we mean the ontological dependence on God. In the events ontology, necessity means uncreated. God is necessary, and logic is necessary, and if you admit time is necessary, and so on. They share the same ontological status. On the contrary, in the things ontology, necessity does not mean 'uncreated'. It means to exist actually, rather than remain as potential. Logic and causal relations are necessary in the sense that they are always actual, there is no potential law of nature nor a law of thinking. They're always actual. Contingent beings -so to speak- are potential until they are actualized.

In the chapter that follows, I present several approaches to creation and evaluate them according to my findings in the first three chapter. That is, they must not only satisfy the intellectual standards with respect to the integrity of nature elaborated in the first two chapters, but also sufficiently address the concerns related to the theistic paradigm delineated in the third chapter.

Chapter 4: A Critical Analysis of the Concept of Creation

Now, there is causal necessity in nature and God is sovereign over everything. How are we going to understand the relationship between God and nature? To be more specific, how is God related to beings in nature? The general theistic answer to this question is that He is the creator of the world and everything in it. However, even this general characterization has been questioned and understood in diverse ways. In this chapter, my task is to analyze several theories of creation in order to clarify what creation means in the theistic context. After proper clarification, I will be able to determine which of the theories is best suited with the theory of causal necessity that I defended in the first and second chapters, as well as with the sovereignty of God that is established in the third chapter.

The history of the problem of creation can be traced back as early as the presocratic era. However, with Plato, and Aristotle after him, the problem starts to get the most intricate treatment because of the implications in their philosophies towards the uniform structure of being. With the infusion of Greek thought in theistic religions, the problem stirred up tremendous controversy among theologians and philosophers. Here, theism is taken as an umbrella term, which covers philosophical ideas that are centered on the idea that there is only one God who is beyond nature and sovereign over it. As we have seen, sovereignty and aseity constitute the backbone of the theistic paradigm, in which all traditional divine attributes are formulated to confirm God's absolute sovereignty on the one hand

and to ensure God's aseity on the other. In this chapter, I will discuss, first, how Plato's and Aristotle's concepts of God do not address the problem in theistic standards. Second, I will deliberate on how the relationship between God and nature is construed in diverse theistic models. Finally, I conclude that the best theistic explanation is given when creation is construed as ontological dependence and contrasted with temporal dependence.

To outline the major positions, let me rephrase my problem: is the claim that God is sovereign over nature compatible with the claim that entities in created order have genuine causal powers? Answers to this question range from a bold no to a bold yes, and of course, there are many other views in between. One extreme side is called *Occasionalism*, which is the idea that there is no causal power in nature, hence there is no nature, and God creates the world every subsequent instance repeatedly. What we see as natural interactions are merely illusions of God's constantly exnihilating and annihilating the universe. Thus, the Occasionalist solution consists in eliminating the integrity of nature in favor of divine universal causality. At the opposite side of the spectrum sits *theistic naturalism*. As I will show below, it can almost be considered *deism* because it suggests that except as the final cause of natural change, God has no role in reality. Thus, it tries to solve the problem by entitling God as a remote principle of nature. This is however synonymous with removing sovereign status from God. For the theistic naturalist, God is relevant to the question of natural change only in virtue of being its perfection, and the rest is about motion and can sufficiently be explained by immanent causes of nature, which are matter and form. Hence, God-talk is redundant in explaining the causal

interactions in the world. In contrast, for the Occasionalist, the talk of natural causation is redundant because God can account for everything including causal interactions.

In between these extremes, there are different views of secondary causalism. The common feature of secondary causality views is that they recognize two related, but hierarchically ordered concepts of causation: one created, one divine. Divine causation is given the privileged status of bringing into existence out of nothing, while created causes are said to be operative within nature. *Concurrentism*, the view that God cooperates with the secondary causes to bring about effects in nature, and *conservationism*, the view that God conserves the existence of the causal powers of natural entities to allow them to genuinely effect each other, are most common of such theories. These are going to be closely investigated. There is also what can be called *decretalism*, the view that laws of nature are the beliefs (or decrees) of God, as represented in the works of Leibniz, which will be excluded from our discussion because it demands a whole separate project to discuss its tenability without pushing it so far as to equate God with nature and result in pantheism.

Now, I will show how Plato's and Aristotle's ideas differ significantly from a theistic understanding of creation. We need this section because Plato's and Aristotle's ideas about God anticipated, if not determined, what eventually came to be the central problem of divine causality in later theistic philosophy.

A. Non-theistic Approaches to God-World Relationship

I. Plato

Plato thinks that the world is essentially the creation of God, but it has the power to sustain itself. In other words, the world is like another god. In Plato, the world is a copy of an eternal and ultimately Good Being. The world is alive and governed by reason. Here, reason is used in its most tangible sense. Just like a human being, the world has a soul with the capacity of reasoning, and its soul is attached to a body, namely the physical universe. However, in creating the body of the universe, this Good Being, or God, had to use whatever was available to Him. He did not invent the form of the universe as He wishes. There were unchanging, perfect, eternal patterns –in contrast to patterns in constant flux- and God created the world in imitation of those eternal patterns. Besides eternal forms, elements have also their nature which is beyond the power of God. After a brief description of how four elements constitute the entire universe, Plato says in *Timaeos* that:

> "the god set water and air between fire and earth, and made them, so far as was possible, proportional to one another, so that as fire is to air, so is air to water, and as air is to water, so is water to earth, and thus he bound together the frame of a world visible and tangible. For these reasons and from such constituents, four in number, the body of the universe was brought into being, coming into concord by means of proportion"[162]

Clearly in this passage, for Plato, is that God did not give natural elements their characteristic features. He found them as they are and put them together to create a harmonious whole. This whole was created as self-sufficient and ultimately

[162] Plato, *Plato's Cosmology: The Timaeus of Plato*, trans. Francis MacDonald Cornford (Indianapolis, Indana: Hackett Pub. Co, 1997), 44.

moving with a ‘uniform circular motion on the same spot.' He is essentially a craftsman (Demiurge) who is working with raw elements and following eternal blueprints. His product, the world, is essentially a piece of craft that is made from originally chaotic elements. God is responsible only for their order, not for their existence. Without His touch, there would never have been a cosmos. Therefore, for Plato, God is responsible for the intelligible order of the elements of the universe in such a way that the elements could not have been by themselves. Without His adding a soul with intelligence, the eternal principles and elements would have always been in chaos, thus unable to form a universe like ours.

What is important in Plato for our discussion is that he is aware of the problem of causal redundancy. His solution is very straightforward: Without God, independent elements would not be able to form a harmonious whole. Even eternal truths have no power over them without God’s crafty touch. If it is true that “everything that becomes, or changes must do so owing to some cause; for nothing can come to be without a cause,” a thing “that which always is” do not need any cause. It simply exists. In this case, God is an eternal being among many, but His distinctive feature is that He is pure goodness. His goodness drives Him to give the disorderly and disharmonious world an intelligent shape. The totality of the universe owes God its causal order between its elements. For instance, the reason why fire and water interact, originally independent beings with totally distinctive characteristics, is that they are put together by God in this way. Plato suggests that fire is inherently fire with its power to make things visible. God used it for visibility of the universe. However, the question as to why it exists as it remains unanswered.

In Plato's philosophy, therefore, God is needed for the structure of the universe, but not for its existence.

If God is responsible for the order of the elements, and if nature of each element is responsible for acting in a certain way, do we still have redundancy? It looks like Plato offers a solution to the problem by the division of labor. However, if the fire is fire whether God puts it with other elements, once the whole was structured, there appears no need for God anymore for the functioning of the universe. If fire acts naturally so far as it is fire and if some papers naturally get burned when they contact with fire, what would be God's role in this natural event of burning? In the end, both fire and paper act out of necessity. God has only designed a world with certain amounts of fire and paper, so when they interact, burning happens. God has no more role in it other than a human's bringing fire and paper together. As a human's bringing fire and paper together is irrelevant to the causal explanation of burning, God is irrelevant to this and any natural event. It is clear in this regard: Plato's God is not sovereign in the theistic sense. Neither is He the ultimate source of existence because ideas are necessary in their own right, nor has He unrestricted power over the world because He had to follow eternal blueprints when He brought about cosmos out of chaos. In this case, His freedom has also been compromised by the natural powers of elements as well as abstract objects in the transcendent realm of ideas.

Another problem with Plato's solution is related to the concept of God itself. God is one eternal power among many. He is hardly distinguishable from them. He is

as dependent on others as any natural power. In this case, we are not in the position to say what God's role is in the normal course of natural events. One can easily claim that what Plato calls Good Being or God is a natural tendency of the universe towards order. If this claim is true, then not only is God rendered redundant as an explanation for natural change, but also His aseity seems to evaporate as He is one out of many interdependent components of reality. He is not unique in the sense theism proposes Him to be.

One can object this criticism by saying that in Plato's universe, what moves celestial spheres uniformly and circularly is the soul with the capacity of reasoning that was created by God in His resemblance. Therefore, the action of celestial spheres, namely the perfect circular motion, must be attributed to God. Does this explanation help connect God with nature? Unfortunately, it does not, because, in Plato's universe, celestial spheres are considered not really to be in contact with the things in our world. They are in sharp contrast with imperfection imposed by archetypical features of the four elements. Since celestial bodies are not made of the four elements, actions of celestial and worldly bodies differ essentially. Thus, even though we admit God's role in the action of celestial bodies as the source of motion, there is still hardly any connection between God's actions and natural change in our world. In the end, the division of labor suggested by Plato cost his philosophy a theistic God who is supposed to be not only sovereign but also a se in the strictest sense. Thus, it is safe to suggest that Plato's concept of God is deist, if not polytheist.

II. Aristotle

Aristotle dealt with the same question as his master Plato. His approach, however, was less theological. Diverging from Plato's efforts to account for an ultimately Good Being, Aristotle aimed at explaining the motion in the world. He did not specifically write on God or divine attributes. Hence, his writings do not include any systematic theology. He is concerned with the ancient question: Why is there motion rather than rest? This question led him to come up with a universal theory of motion that, for him, essentially needed a prime mover. Aristotle identifies different sorts of motion and analyzes moving objects and movers. In the end, he comes up with a notion of God who is not different than nature as a component of reality.

In Aristotle's philosophy, we notice the tension between a concept of God as a necessary principle of nature and another as the transcendent force that is separate from the order of the world. Aristotle is at first very clear about God's complete transcendence. But this does not mean that God is not involved in the world's constant change or motion. His theory requires God to be involved in a natural change in a supreme, yet very indirect, manner.

To see how Aristotle separates God from the world, we need to remember two Aristotelian maxims. First, no motion is possible without a cause. If there is any motion, for it to be, there must be a cause moving it. In other words, if something happens, it must be caused by something else. This dependency of the motion on its causes suggests that what is brought about by causes in nature is not necessary but possible, that is to say, that if something is caused, it could be otherwise or

completely absent. We observe that objects are in motion. So, for any motion to take place, there must necessarily be a cause that moves the object.[163] A second Aristotelian maxim completes the argument by maintaining that the succession of necessary causes cannot be taken to infinity because if it were the case, no motion would even begin. There must be a first mover that is not in motion itself. Thus, an unmoved mover is necessary for explaining the existence of non-necessary motions.[164]

The cause that is referred to in the previous paragraph is the final cause in Aristotle's philosophy. Aristotle identifies three more causes as material, efficient, and formal. His main reason for coming up with this principle of four causes is the ancient question of change and permanence. He defines change as the transformation of the potentiality of things into actuality, or in other words, prime matter's taking of different forms. This definition is based on two assumptions: First, potentiality is the fundamental state of being from which everything departs, and hence actuality is a state of arrival, and second, the transformation is a process. Whether it is accidental or substantial change, a thing is moved from potentiality to actuality, and this move inevitably takes place in time. Therefore, time, which is

[163] As will be clear, this 'first' does not refer to a temporal cause and effect relationship. Here, the priority is ontological.

[164] Herbert A. Davidson, *Proofs for Eternity, Creation, and the Existence of God in Medieval Islamic and Jewish Philosophy* (New York: Oxford University Press, 1987), 238.

eternal, and prime matter, which is fully potential, are constituents of change as fundamental as the unmoved mover.

In this characterization of reality, Aristotle identifies the first cause of motion, which must be beyond any potentiality. In other words, this first cause must be perfectly at rest. As an unmoved mover, the first cause of motion, also called the Prime Mover, is not formal, material nor, most importantly, the efficient cause of the change in nature. The efficient cause of every motion is indeed within the same temporal order in which an effect comes to be. Additionally, efficient cause, Aristotle argues, must participate in the effect. However, the Prime Mover cannot be in time nor can it participate in moving things because natural things have potentiality, but He is purely actual. Therefore, He can only be the final cause of change. How does this causality work? Is he a physical being? Aristotle points out that the Prime Mover cannot be corporeal because nothing material can sustain eternal movement of the heavens. This is the most distinctive application of a concept of God in Aristotle's philosophy. He is the necessary prime mover who attracts every potential being towards His pure actuality. As the final cause, he is not the temporal but only the remote origin of motion.

If the causal link between the Prime Mover and objects is not physical, how are they related? How does He cause them to move from potentiality to actuality? In the heavens, it is the love of God that moves them eternally. This is God's role as the final cause. In the sublunary world, however, things move toward their natural places. For Aristotle, basic motions, like circular or straight motions of objects, are

not divinely guided. Things in the world change due to other things of their kind; they simply interact. God's final and necessary causation is completely separated from the contingent or efficient causation of sublunary world. Aristotle argues to the effect that God is not part of nature nor a natural principle.

On the other hand, Aristotle seeks ways to connect God with nature because otherwise this purported ultimate reality will be left unintelligible, or will be used as, with the modern appellation, the god of the gaps. He depicts God as a necessary metaphysical principle of nature who is responsible for the motion of things toward their own perfections. Since perfection lies where there is rest, Aristotle thinks that the objects of the (sublunary) world seek perfection as change is the transformation of substances from potentiality to actuality and nothing that is in the process of change is yet perfect. They seek perfection, and this perfection is the motive for their motion. Divine *nous*, as the ultimate intelligence of the Prime Mover, is the cause why the motion is intelligible, in the sense that, why anything in the world is inclined towards actuality rather than remaining merely potential. Even though the Prime Mover cannot be said to be related directly to nature, everything can be said to connect with Him as they follow an intelligent pattern towards their resting place. Human thought is the best example of how the world is inclined to perfection. Thought seeks, or desires, understanding and in turn understanding seeks perfect grasp of reality. Therefore, the intelligibility of the world's natural motions, or the innate desire of the objects to be fully actual, is the connection between imperfect beings and the Prime Mover.

Nonetheless, this inclination is not sufficient for the connection to be of the theistic sort. In Aristotle, the Prime Mover is only a remote cause of being. Let alone creating, God is not engaged in nature in any real sense. Although Aristotle's Prime Mover is the real cause of the world as the object of desire, in no sense does He create the world or give it its design. It is true that the Prime Mover can be seen as the perfect being to whom theism appeals as self-sufficient, independent, eternal, and necessary, and in contrast to the world which is subordinate, dependent, and temporal. It might be said that his notion satisfies the aseity criteria of the theistic understanding of God-world relationship. Nonetheless, the perfection attributed to the Prime Mover does not include His sovereignty over nature. He is not the origin of the world, nor is he the designer. As Olson observes, in Aristotle:

> "God acts as an ordering principle of the cosmos only insofar as he is a final cause, always remaining aloof from the dynamic of the natural order, never intervening in temporal affairs, solely responsible for the orderliness of the movements of the world as the object of desire toward which the *conatus* of natural beings incline as they strive to emulate or participate in divine reality by achieving actuality to the degree promised in their natural potencies."[165]

Unlike the theistic God, the Prime Mover cannot be said to have created time and prime matter because both time and prime matter are equally fundamental components of the cosmos with the Prime Mover. In Aristotle, the Prime Mover is needed, as are time and the prime matter, to explain natural motion, not the other way around. Consequently, in contrast to the absolutely sovereign God of theism,

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[165] R. Michael Olson, "Aristotle on God: Divine Nous as Unmoved Mover," in *Models of God and Alternative Ultimate Realities*, ed. Jeanine Diller and Asa Kasher (Springer Science & Business Media, 2013), 101–9.

the Prime Mover has no role of superiority in being over time and the prime matter. In this respect, even though we can designate Aristotle as a monotheist in some sense in resolving the issue of creation, we have satisfactory reasons to separate his account from the theistic concept of God.

As our analysis has demonstrated, Plato and Aristotle approach the problem of creation from different angles and offer quite distinct solutions. I am not going to deal with their respective success or failure in resolving the issue because neither proposes an absolute creative power behind everything that exists. My point is that no doubt their concepts of ultimate sources of reality paved the way for more sophisticated accounts of a theistic understanding of God, yet they fail to satisfy theistic conceptualization of God's relationship with the world. In Plato's case, God is neither sovereign nor a se. In Aristotle's case, He might be a se, but in no way is He sovereign. Now, I proceed to discuss how theistic approaches address the issue, and how successful they are in, on the one hand, remaining within the conceptual limits of the theistic insight that God is sovereign, while on the other, not eschewing the integrity of nature.

B. Theistic Approaches to God-World Relationship

I. The Question Restated

The previous section has shown that proclaiming the unity of being is not sufficient for the theist even though this unity of being reflects what theism takes as the oneness of God. The theist is mainly concerned with the unique role that can be assigned to God with respect to the coming to be of the world. Then the problem is

not limited to whether God is connected to nature or not; it is more about whether God is indispensable for everything else. This will secure, if not prove, the sovereignty of God. In short, God's freedom, with which I am not particularly dealing here, and God's unique role in existence are fundamental prerequisites for a theistic concept of creation, and Platonic Demiurge and Aristotelian Prime Mover fail to account for either or both. How are these two prerequisites accounted for in theistic proposals?

Even though the theistic idea of divine sovereignty is almost unanimously understood as the claim that nothing exists independently of God, it has been embodied in a multitude of interpretations. As we have seen in the first part of the current chapter, Plato attributed the order of the universe to his deity, while Aristotle attributed motion to his. In addition, in the 3rd century, Plotinus (c. 204/5 – 270 AD) proposed the idea that "One beyond being" should be attributed to God.[166] For a theist, all three attributions seem perfectly legitimate God. However, reconciliation of these three attributions and the thesis that nature is really effective in bringing about effects posed challenges for philosophers and theologians of all the three theistic religions. Is it possible that God is absolutely sovereign over everything else while nature remains as an integral whole which functions uniformly and reliably? The answer to this question will help clarify the definition of creation.

[166] Rahim Acar, "Creation: Avicenna's Metaphysical Account," in *Creation and the God of Abraham*, ed. David B Burrell et al. (Oxford: Oxford University Press, 2010), 77.

II. Avicenna's Account of Creation

One universal account which not only contains all the attributions mentioned above but also considers nature as an integral whole was formulated by Avicenna. Avicenna positions his account of creation on top of his understanding of causation. He begins by separating metaphysical causes from natural causes. For Avicenna, since metaphysical causes are eternal, their activity cannot denote a temporal priority.[167] Instead, they denote essential dependence of the effect to the cause. As an illustration, material things, like my house, are generated in time out of another material, e.g., bricks and cement. The non-existing state of my house is only relative, which means that there has always been potential in bricks and cement that they come together in the correct form to make up my house. And the production of my house occurs in time with the efforts of the workers and implementation of the plan. In this respect, this kind of causation is appropriately called temporal causation.[168] However, none of the stages in the process accounts for the being of the components when they're existing. The process of change with all the micro-processes that constitute it does not account for its own being but only for its causal role in the construction of the house in time. Its being, which depends on none of the antecedent conditions nor any constituent, is conferred by the metaphysical cause. Without the conferral of the form of the house, in our example, there are only some rocks and dirt. In this respect, the essential causation refers to the atemporal activity of bringing things into existence, without which things would merely be

[167] Marmura, "Avicenna on Causal Priority," 66.

[168] Avicenna, *The Metaphysics of the Healing*, 196.

essences. God, the only true essential cause is the one who confers existence to metaphysical causes. Nothing precedes his essential causation – no antecedent condition or principle of nature.[169] In this sense, it is appropriately called creation ex nihilo:

> "In a very real sense, when the Necessary Existent causes what is possible in itself to be necessary, it is creating ex nihilo, if by ex nihilo one means creating from no existing prior thing."[170]

In the creation of the house, the role of the natural causes is to arrange the matter appropriately and place it correctly so that it could receive the form of a house. The role of the metaphysical cause is to confer the right form when all conditions are satisfied. The role of God is to eliminate non-existence from metaphysical causes eternally so that they could function. Essential causation, in both God's causing of metaphysical causes and metaphysical cause's causing of natural change, is atemporal. Atemporality of essentially ordered causes entails that the cause is simultaneous with its effect and the cause must be existing as long as the effect exists.

A point to highlight in Avicenna's account is that even though temporal causation applies only to material beings, essential causation applies to both material and immaterial beings.[171] Surely, all metaphysical and rational beings which are traditionally thought to be immaterial are outside of temporal order but,

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[169] Avicenna, *The Metaphysics of the Healing*, 203.

[170] Jon McGinnis, *Avicenna* (Oxford; New York: Oxford University Press, 2010), 187.

[171] Acar, "Creation," 78.

in this account, they are still included in the set of created beings. It is important to notice here that the term created is used to describe the beings of whatever is essentially caused. Since, in Avicenna's modal ontology, God is the only being whose essence and existence are identical, any other being with a contingent essence is in need of divine existence-conferral activity. God's conferral of existence on essences is eternal in some cases, while it is temporal in others.[172]

That being said, it should be clear that Avicenna thinks that God's creation of the things in temporal order is through mediate beings, namely the metaphysical causes. This makes His causation only remotely effective, rather than directly. This Neoplatonic mark on his theory of causation is transferred to his account of causation.

In sum, in Avicenna's account, God has a unique ontological status in the coming to be of all things in the world. Particularly important for our discussion is that his idea of creation does not leave out anything except for God. The fact that God brings about everything by eliminating their absolute non-existence either directly or indirectly secures ontological dependence of everything else on the only ontologically independent being. In the next section, I will dwell on my thesis, which is an extension of Avicenna's account of creation.

[172] Avicenna, *The Metaphysics of the Healing*, 272-273.

III. Creation as Ontological Dependence

The common theistic characterization of creation is ex nihilo; my account is no exception. Before delineating my proposal, however, I would like to identify five theses related to creation.

- Temporal origination thesis: The universe has an absolute beginning in time.
- Production thesis: Every object begins to exist in the history of the universe.
- Sustenance thesis: Everything is constantly in need of God's sustaining activity
- Existence conferral thesis: Nothing exists unless God confers existence upon it.
- Intervention thesis: God can intervene in the ordinary course of nature to bring about extraordinary effects

Identifying these theses is extremely important for what follows because I observe that, every theistic account of creation makes use of at least one of them. In my discussion, since it requires a separate set of questions, including the enormous content of the discussions of divine freedom, I must postpone pursuing concerns about God's extraordinary involvement in the world's coming to be.[173] The other

[173] Admittedly, this thesis is more critical than others for the theistic religions because it forms the basis for divine interference in history, such as the case of revelation and miracles. I presume that once I clarify God's relationship with the ordinary course of nature, we will gain more insights into the extraordinary events narrated in the scriptures.

four theses will suffice to tackle with the question of God's involvement, if any, in the ordinary course of nature and will help me clarify my own position.

I have shown that for Avicenna, metaphysical causes with the participating matter are direct causes of change in nature. I must add to that that in Avicenna's cosmology, simple and composite beings in the sublunary realm receive their forms from the lowest of the celestial intellects, which is a metaphysical cause, the Giver of the Forms.[174] This created being is crucial in Avicenna's account because it connects the realm of change with the realm of no-change. By change, he intends to emphasize the ontological difference between beings which are subject to generation and corruption, and beings which are not subject to generation and corruption. The Giver of the Forms and the intellects that are higher than it are the mediums of so to speak the existential communication between the Necessary Being and beings in the sublunary realm. God is the ultimate cause of the existence of everything, but not immediate cause of the beings except for the First Intellect. On the one hand, this hierarchical cosmology, which was adopted from Neoplatonic philosophers like Plotinus and al-Farabi, equips Avicenna with a single concept of causation, by which he connects the whole reality. On the other hand, the same hierarchical cosmology demands distance between each of the layers, which in turn, amounts to an undeniably far ontological distance between the Necessary Existence and the lowest of all beings, objects in nature. They are constrained not only by essential causes of the higher layers but also by spatiotemporal order of natural

[174] McGinnis, *Avicenna*, 195.

beings. Thus, Avicenna's resort to this cosmology requires him to admit an ontological remoteness between God and the objects in nature.

Nevertheless, we do not have to commit to the elements of the Avicennan account of creation that are primarily shaped by the Neoplatonic cosmology. After all, the proposed model of causation described in the last section depends primarily on the Avicennan innovation of the modal ontology. I have already noted that the ontological dependence of everything on the Necessary Being is justified with His radical difference from the rest of the beings. In terms of the essence and existence distinction, everything including the supposed Giver of the Forms and other intellects are contingent on the only Absolutely Necessary Being, the only being whose essence and existence are identical. Here, I venture to suggest that this is all we need for an account of ontological dependence. There really is no need to appeal to intermediary causes that were originally devised to conform to a Neoplatonic hierarchy of being. Indeed, my suggestion is reinforced by the fact that when we eliminate the Neoplatonic elements of the Avicennan account of creation, his position regarding the divine causation does not seem to be weakened.

Therefore, my position differs from Avicenna's concerning the cosmological application of the ontological commitment we share. I agree with him in believing that a theory of causation must be all-inclusive. This will apply equally to things in nature as well as for eternal beings such as logical truths and moral goodness. I think with him that some of the created beings are eternal while others are temporal. Yet we differ in how to position created order. To me, God directly and

immediately confers existence on all beings, regardless of their relationship with time and regardless of their interrelationships. For instance, logical necessity as a created being is eternally operative on other beings. The same thing can be said for causal necessity. According to Avicenna, however, God only indirectly and mediately confers existence on most of the beings. Except for the First Intellect, everything depends on other essential causes besides God. And I dare to ask: why could not God bring about everything in the way that He brings about the First Intellect? Unless you share the Neoplatonic axiom that from the One emanates only one, which is thought to be entailed by divine unity and simplicity, there is no inconsistency in suggesting that God confers existence on everything immediately and directly. Let alone harming, removal of hierarchy promises conceptual parsimony in the theory of creation. This point will be clarified later.

Why does this matter? As we have seen, Avicenna's account of creation affirms the existence conferral thesis while eschewing the sustenance thesis. For Avicenna, the sustenance of the world is the work of metaphysical causes with the assistance of physical causes. God's sustaining is limited to the First Intellect. Since my position parts ways with the Neoplatonic hierarchy, I cannot attribute sustenance to the layers of metaphysical causes described by Avicenna. Instead, however, I think that this metaphysical act can also be attributed directly to God without any inconsistency. If the sustenance thesis is combined with the ontological dependence thesis, then a source of confusion, that is a commonly held view that

God's causation is by means of other causes, is eliminated.[175] The problem with this ordinary understanding of divine causation is that it draws creation too close to natural causation. God's causation is a basic act, transparent, and equally distributed to all beings. In contrast, natural causation is always conditional on time, the statuses of participating substances, and perhaps also laws of nature. In this regard, God's sustenance will make it clear the distinction between creation and causation.

Related to this, my position differs from Avicenna's in one more aspect. Although Avicenna uses distinct terms for metaphysical (*ibdāʿ*) and natural causation (*ihdāth*), he considers them under the general term cause (*ʿilla*). However, I suggest that even though causation is the closest thing in creation to the act of creation itself, because of the element of the dependence relationship in both, we should consider distinguishing them for the sake of clarity. Avicenna's terminology is, in this respect, confusing because both types of coming to be, metaphysical and natural, are presented as species of causation. Instead, we should take causation as a species of creation. Causation as exemplified in the case of fire and the paper, or a rock and the glass, takes place in time and describes a change within nature. However, creation is atemporal and outside of, or ontologically prior to, nature. I think this is more than a matter of terminology. If we take creation *sui generis*, denoting the unique relationship of everything with God, it is easier to justify

[175] W. Matthews Grant, "Divine Universal Causality and Libertarian Freedom," in *Free Will and Theism: Connections, Contingencies, and Concerns*, ed. Kevin Timpe and Daniel Speak (Oxford, New York: Oxford University Press, 2016), 214–7.

createdness of eternal beings along with things that are in causal nexus. That is, for instance, it can be effectively argued that logical necessity is uncaused. But this does not entail that it is not uncreated.[176] Thus, I suggest that we should assign the term "causation" to the activity of beings that are in time and assign the term "creation" for the activity of God to bring about everything including beings that are in time.

There is one more issue between Avicenna's account of creation and my position that is an extension of it. His account entails that the universe's transition from non-being to being as a whole is impossible. In other words, Avicenna rejects the temporal origination thesis. He argues that the universe is sempiternal on the grounds that the concepts of cause and effect will not allow the idea of the temporal beginning of the universe and also with reference to the nature of things in virtue of their being in time.[177] With respect to the temporal origination thesis, my position is neutral, even though I am inclined towards Avicenna's reasoning due to the concerns related to God's immutability and the necessary existence of eternal beings. Therefore, I will need to keep this discussion for future research. Now, I will only be tackling the question of whether causation in nature and God's creation are compatible. There are various theistic approaches to this issue. In the next section, I

[176] Many considerations regarding this issue ignores this difference. Thus, uncaused beings are considered to be uncreated by some theistic philosophers of religion. For instance; Alvin Plantinga, *The Nature of Necessity* (Clarendon Press, 1974). and Peter Van Inwagen, "God and Other Uncreated Things," in *Metaphysics and God: Essays in Honor of Eleonore Stump*, ed. Kevin Timpe and Eleonore Stump (Routledge, 2009).

[177] Acar, "Creation," 84-5.

will analyze specific arguments for each of the approaches. To contrast, I begin my discussion with deism, and then I move on to the rarely-held view of theistic naturalism, followed by the discussions of Conservationism, Occasionalism, and Concurrentism.

IV. Accounts of Creation

a. Deism and Theistic Naturalism

Deism, as I discussed earlier in passing, is not included in the theistic theology of creation. I include it here for contrasting purposes. A deist usually affirms the temporal origination thesis alone. For him, it is false not only that the world needs to be sustained by God in any of its subsequent moments, but also that nothing is ontologically dependent on God concerning its existence. The order of the world can be remotely attributed to God's wisdom, but this does not denote any divine sovereignty. By the same token, the deist discredits intervention thesis, which holds that God is able to involve in matters of the world and reacts when He wishes. Thus, for the deist, the world is an ontologically dependent, self-sufficient whole, and created out of nothing by God sometime in the past.

This account is problematic from a theistic point of view in many respects. However, there are three logical consequences of deism that make it irreconcilable with a theistic understanding of creation. First, it may be argued that God had ceased after creation. Therefore, it does not tell us much about God. Second, it could

be the case that creation of humans is a mere matter of coincidence.[178] Thus, the special connection between humans and God would never be intended. Third, more importantly, if the world's self-sustenance is affirmed for the subsequent moments, it is quite reasonable to assume that it has never been started to exist. An eternal world is perfectly compatible with the deistic assumption that the world is self-sustaining. In other words, deism does not justify its assumption that the world owes its first moment to God's creative activity. Taken together, deism falls short of explaining God's activity, let alone justifying His unique ontological status.

Interestingly, there is also an opposite view of creation which may be considered on the edge of theistic limits, if not outside of it. Theistic naturalism is the view that God is part of the process of natural change. It places creation within the conceptual limits of what is already known and what is possible in nature. For Aristotelians, God is the final cause of change. In contemporary discourse, God is said to operate through laws of nature alone. In either case, God is unique only in the sense that motion would not be possible without Him. This view is metaphysically opposed to deism because it refuses to affirm the temporal origination thesis. Rather, it is strictly committed to the world's eternity on the grounds that motion is not possible if there is any first moment.[179] As represented by Averroes, this account of creation is an attempt to merge creation and causation

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[178] William E. Mann, "Divine Sovereignty and Aseity," in *The Oxford Handbook of Philosophy of Religion*, ed. William J Wainwright (Oxford, New York: Oxford University Press, 2007), 35–58.

[179] Davidson, *Proofs for Eternity,* 238

in virtue of their being the components of a single account of the natural production. As Richard Taylor exposed:

> "for Averroes creation is found in the Aristotelian doctrine of substantial change and the ultimate agent for this is the First Cause acting in a divine intellectual manner as mover of the heavens and thereby causing heat from stars to effect order in what is below. In this way forms are not created as coming to be from non-being and forms are not themselves generated. (Tafsir [Tafsīr mā ba'd aṭ-Ṭabi'at] 1502-1503) In this way God is the cause of unity and existence for things composed of form and matter, and, so he is creator without that creation being ex nihilo or de novo."[180]

It is clear that theistic naturalism enjoys explanatory parsimony; that is, there is no need for a sophisticated account of causation nor for an extra layer of explanation. If one can demonstrate that the universe exhibits an intelligible structure, then that is enough to conclude that there is the First Cause who is responsible for the actualization of potentials in a unifying manner.

How does this account differ from Aristotle's Prime Mover? For Aristotle, Prime Mover is accompanied by other first movers, which are also eternal and equally deserve to be called deity.[181] In addition, Aristotle's Prime Mover is one of three prime beings, other two of which are prime matter and time. Averroes, on the other hand, develops with the help of Neoplatonic idea of intellects a case for a sole source of all reality. His insistence on connecting everything together and showing

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[180] Richard C. Taylor, "Averroes on Creation" (Aquinas and 'the Arabs,' La Sorbonne, Université de Paris 1, 2012), http://academic.mu.edu/taylorr/Research_&_Teaching/Draft__Taylor_Paris_31_May_2012.html.

[181] Taylor, "Averroes on Creation."

that the whole is in need of the Final Cause for its order and unity enables us to categorize his account of creation as one of theism.[182]

Nevertheless, it also fails to distinguish God from nature, that is, the creator and the created. If God is the final cause of unity and order, it is curious who is responsible for their being. As an immanentist, Averroes is not able to meet the challenge posed by Philoponus (c. 490 – c. 570 AD) that states that if God is thought to cause like nature, He is like nature.[183] In other words, as expected from a hard-core Aristotelian, Averroes' God cannot be superior to nature, as He is part of it. This is true even though Averroes' characterization of nature is not limited to the material world. As a part of nature, it is not surprising that God is not as powerful or knowledgeable as He is represented in the third chapter. His knowledge and power reach as far as the level of species and reaches individuals in the material world only indirectly. Very curiously, theistic naturalism shares with deism the feature of removing divine sovereignty from nature even though they hold opposite views on the mechanics of creation. In short, Averroes succeeds in giving an adequate account of the integrity of nature but, by downgrading Him to a privileged but still a natural cause, He fails to portray a sovereign God.

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[182] Barry S Kogan, *Averroes and the Metaphysics of Causation* (Albany: State university of New York press, 1985), 213.

[183] Taneli Kukkonen, "Creation and Causation," in *The Cambridge History of Medieval Philosophy*, ed. Robert Pasnau and Christina Van Dyke, vol. 1 (Cambridge University Press, 2010), 232–46.

b. Conservationism

A way to avoid deism and theistic naturalism is to appeal to secondary causalism. Inspired by the Neoplatonic doctrine of intermediary causes between the One and all other beings,[184] secondary causalism proposes that God efficiently brings about everything out of nothing and sustains it at all times, while at the same time causes in nature are effective on each other. A version of secondary causalism is conservationism. It is the view that things (or secondary causes) can produce effects as long as their existence is maintained by God. Here a two-fold strategy is at work. First, one distinguishes generation and corruption from creation. This step is done by arguing that generation and corruption is a case of change; some parts of this object interact with some parts of the other object, and then a new object is fabricated.[185] Second, she shows that nature is unable to maintain its existence.[186] The conclusion is that creation accounts for the continued existence of things, not for generation and corruption which denote natural change. How is the relationship between the first and secondary causes established? It is obvious that conservationism is primarily designed to embrace the sustenance thesis.

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[184] Richard C. Taylor, "Primary and Secondary Causality," in *The Routledge Companion to Islamic Philosophy*, ed. Richard C. Taylor and Luis Xavier López-Farjeat (Routledge, 2016).

[185] Philip L. Quinn, "Divine Conservation, Continuous Creation, and Human Action," in *The Existence & Nature of God*, ed. Alfred J. Freddoso (Notre Dame: University of Notre Dame Press, 1983), 55–80.

[186] Mann, "Divine Sovereignty and Aseity," 38.

Nevertheless, when questioned properly, it transforms into a way to embrace the temporal origination thesis alone.

If conservationism denotes that the world's continued existence depends on God's sustaining activity while the powers in nature are responsible for the character of the object,[187] then the question arises: what exactly does God conserve? According to McCann, for instance, conservation consists in God's preservation of the existence of those creatures that transfer energy and momentum among themselves.[188] I think this characterization misses the mark. The rock in my hand is sufficiently hard to break a window when I throw it with the right force. If the window is conserved both before and after it was broken, what role can be attributed to the rock's hitting it with the right force? Here, the production thesis may be called for help. The production of the new effect can be distinguished from not only the earlier state of a natural object but also the later state of it. Thus, it could be argued that the role of the rock is to bring about the change, but once the window is broken, it is again God who brings about the continued existence of the broken window. However, we could still ask about the status of the rock. The rock's persistence over time cannot be attributed to itself because this would be a deistic claim. However, if its existence through the entire process of breaking the window

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[187] Jonathan L. Kvanvig, "Conservation, Concurrence, and Counterfactuals of Freedom," in *Metaphysics and God: Essays in Honor of Eleonore Stump*, ed. Kevin Timpe (London; New York: Routledge, 2009), 112–26.

[188] Hugh J McCann, *Creation and the Sovereignty of God* (Bloomington, IN: Indiana University Press, 2012), 32-3.

depends on God's conservation, then the production of the broken window is properly attributed to God's conservation as well.[189] Apparently, the sustenance thesis alone is not sufficient to establish the relationship between the first and secondary causes.

Could it be the case that things have been created with a capacity to persist over time? In this case, the sustenance should be attributed to secondary causes while the production should be given exclusively to God's hands. The window and the rock before they touch each other were being sustained by their capacity to persist over time, and then at the time of touching God brings it about that the window is broken by the rock. Despite its promising suggestion, this interpretation betrays the main intuition behind secondary causalism. As Kvanvig and McCann[190] argued, assuming such self-sustaining capacity can be justified neither metaphysically nor physically. Based on the difficulties with the concept of self-sustenance, such as whether self-sustenance is a property of the objects, what accounts for the sustenance of this property, they conclude that an internal capacity to sustain over time is impossible because it involves an infinite regress.[191] Moreover, they have effectively shown that scientific laws are incapable of providing

[189] Alfred J. Freddoso, "God's General Concurrence with Secondary Causes: Why Conservation Is Not Enough," *Philosophical Perspectives* 5 (1991): 556.

[190] Jonathan L. Kvanvig and Hugh J. McCann, "Divine Conservation and the Persistence of the World," in *Divine and Human Action: Essays in the Metaphysics of Theism*, ed. Thomas V. Morris (Ithaca: Cornell University Press, 1988), 13–49.

[191] Kvanvig and McCann, "Divine Conservation," 48.

sustenance over time because they, in fact, presuppose the continuing existence of the world.[192] In fact, the reason why scientific laws are accurate is not that the world is self-sustaining but that their presupposition that the world is sustained is correct. Nevertheless, if neither production nor persistence of the object can be attributed to secondary causes, what exactly is their role?

The challenge stems partially from the fact that when conservation is considered, there emerges a tendency to collapse the sustenance and the temporal origination theses. The result is that God is continually creating the world as He did at the beginning of the world, and production refers just the same divine activity.[193] Therefore, the difference between conservation and production reduces to mere conventional use, when the latter denotes the first time a thing exists, while the former denotes its existence at a later time. Yet, the action is identical.

William L. Craig attempts to avoid this conclusion by insisting that the difference between creation and conservation is more than their conventional use.[194] He argues that it may be true that they refer to the same divine activity from God's point of view. However, they must be different from our point of view. God, for Craig, creates when something exists for the first time, and conserves after its

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[192] Kvanvig and McCann, "Divine Conservation," 33.

[193] Philip L. Quinn, "Divine Conservation, Secondary Causes, and Occasionalism," in *Divine and Human Action*, ed. Thomas V. Morris (Cornell Up, 1988), 50–73.

[194] William Lane Craig, "Creation and Conservation Once More," *Religious Studies* 34, no. 2 (1998): 178.

creation. In his understanding, creation (referring to production) is synchronic while conservation is diachronic. In this regard, he intends to limit ex nihilo action of God to creation alone. However, his attempt raises conceptual problems specified by William Vallicella.[195] Vallicella objects that if Craig's distinction is taken seriously, it is not clear when God begins conserving an object. At the time of creation, or after creation? If it begins at the time of creation, then we must admit that God conserves an object which does not exist yet. On the other hand, if God begins conserving after creation, then nothing explains the existence of the object within the interval between an object's first moment and the next. Thus, it is conceptually more reasonable for the thesis that conservation is but continuous creation.

Consequently, the strategy of assigning some functions to God's sovereignty while allowing secondary causes to act efficiently fails to describe the relationship between the first cause and secondary causes. In this case, while conservationism offers an adequate account of the sovereignty of God, it does not succeed in securing the integrity of nature. Therefore, conservationism inescapably indicates that there is no genuine causation in nature and, worse, no conservation is possible because no object can persist through time. Now I shift my focus to the alternative accounts of creation, namely Occasionalism and Concurrentism, as the former rejects causal

[195] David Vander Laan, "Creation and Conservation," ed. Edward N. Zalta, *The Stanford Encyclopedia of Philosophy* (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/win2017/entries/creation-conservation/.

activity to secondary causes altogether while the latter limits divine activity to ontologically fundamental structures.

c. Occasionalism

We have seen that when creation is reduced to the temporal origination thesis, it entails Occasionalism. If God gives existence to anything, it must include all the properties. If it includes all the properties, then all actions resulting from these properties are created with them too. If one admits that God is the cause of the beings of the stone, the window, and the action of breaking, then he is to acknowledge that there is no room left for natural causes to act. But what is the gain if we affirm Occasionalism?

First, it makes sure that the sovereignty of God is absolute and not shared with any created being. As expounded in the classical Islamic theology, God's creation of the world at every subsequent moment is the guarantee that there is no power in anything else. According to this view, the qualities and dispositions of any object at this moment cannot be transferable to the next moment. Therefore, it is argued, what seems to be a continuation of an action from a previous moment to a later moment is only illusory.[196] What happens is that God creates the window unbroken at t_1, and the rock hitting the window at t_2, and then the broken window at t_3. In this respect, there does not have to be anything essential in the window nor in the rock regarding the entire process of breaking. God creates them separately. It

[196] Kukkonen, "Creation and Causation," 237.

is crucial here to notice that, affirming Occasionalism rules out the possibility that secondary causation is effective, even in the weakest sense.

Second, as Plantinga argues, in contrast to secondary causation, Occasionalism offers a clear idea of causation. Taking Hume's objections seriously, Plantinga reasons that unless causation is confirmed empirically, or we have a convincing account of necessity in nature, Occasionalism offers a better idea of causation in general:

> "it is necessary in that sense that if God wills that p, p occurs. Insofar as we have a grasp of necessity (and we have a grasp of necessity), we also have a grasp of causality when it is divine causality that is at issue."[197]

Nevertheless, I think neither of these external advantages helps to solve the internal problems of Occasionalist theology. In metaphysical, theological, and epistemological planes, Occasionalism is so infected with conceptual problems like inconsistency, monism, and skepticism that it is difficult to determine its main proposition.

Metaphysical Problems

Occasionalism is offered as an alternative to the naturalistic explanations for the reality. However, for its proponents, it is still an account which concerns not only the absolute sovereignty of God but also the order in nature. Adding the possibility that a completely different nature could be created in the next moment, and the possibility of extra-natural events like miracles and revelation, the

[197] Plantinga, "Law, Cause, and Occasionalism," 137.

Occasionalist appeals to God's wisdom as an explanation for the world's order and unity. Let us explore how differently this order and unity can be justified while securing divine sovereignty.[198]

First, it could be the case that things are created with active essences, but they are constantly directed towards action and manipulated when God wishes. So, the rock is essentially hard, and the window is essentially breakable. However, to exercise their hardness and fragility, they need God's active involvement at the time of the interaction. In other words, objects are completely ineffective in bringing about change in themselves nor in another object unless God wishes the possibility of the interaction momentarily. The problem with this account is that it attributes to God creation of something superfluous. If essences are incapable of bringing about any effect by themselves, then what would be the point of creating objects with an essence? Even if this point is ignored, this account increases the amount of work attributed to God for no reason. Since God's involvement is only external, He must be constantly blocking the powers of essences while letting some of them interact.

Second, it could be the case that things are created without an essence. In this position, it can be argued that God can act from within the objects. The window has the passive power to be broken while the rock has passive power to break the

[198] The problems in this section are adopted from the influential work: Alfred J Freddoso, "Medieval Aristotelianism and the Case against Secondary Causation in Nature," in *Divine and Human Action: Essays in the Metaphysics of Theism* (Ithaca, NY: Cornell Univ Pr, 1988), 74–118.

window. In order for them to act, God needs to actualize their non-essential dispositions. Notice that in this position, every object has a passive nature and God's simultaneous actualization of these powers is the warrant for the action to obtain. A proponent of this version is al-Ghazālī:

> "Similarly, the raising of the dead and the changing of the staff into a snake are possible in this way—namely, that matter is receptive of all things. Thus, earth and the rest of the elements change into plants, plants—when eaten by animals—into blood, blood then changing into sperm. Sperm is then poured into (the womb and develops in stages as an animal; this, in accordance with habit, takes place in a lengthy period of time. Why, then, should the opponent deem it impossible that it lies within God's power to cycle matter through these stages in a time shorter than has been known? And if this is possible within a shorter time, there is no restriction to its being [yet] shorter. These powers would thus accelerate in their actions, and through [this] there would come about what is a miracle for the prophet."[199]

It is obvious that al-Ghazālī is assuming an atomistic ontology, according to which the universe is composed of inseparable elementary components that receive accidents by interaction. On the other hand, McGinnis argues that for al-Ghazālī, it is not that all atoms share the same, empty characterization. Instead, they are differentiated by non-active powers:

> "I submit that al-Ghazālī has a new interpretation of natures at play (…) I suggest that al-Ghazālī construes both formal and material natures as passive, i.e. the cotton has the passive power to be burned and the fire has passive power to burn: in other words, the fire only burns once another cause actualizes the fire's passive power to burn, such that it then has the active power to burn."[200]

[199] al-Ghazālī, *The Incoherence of the Philosophers*, 172.

[200] McGinnis, "Occasionalism," 455.

As we have seen in the first chapter, al-Ghazālī has in mind the teleological necessity when he construes the integrity of nature. The order and unity of nature is explained by the volitional element, an element which is outside of nature, which can only be attributed to God.

Nevertheless, even in al-Ghazālī's characterization, this position does not explain why God would create things in such a miserable way in the first place. A rock without any disposition (like hardness) is not a rock. Al-Ghazālī says that the rock has a passive disposition of hardness which requires God to actualize it. Still, if they are not able to act by their dispositions, objects are always in a bizarre state of being. In fact, as in the case of the first Occasionalist position above, God's creating non-active dispositions does not make much sense if they are always required to be activated by Him. Furthermore, the ontological status of non-active powers is very problematic from the Occasionalist point of view. In both cases, it is not clear where the non-active powers reside before their actualization by God. If God also creates them in this way, there should not be any need to attribute any nature, passive or active, to anything.

Then, third, it could be the case that there is no nature, no disposition, no property but God's direct creation of everything. Historically, this radical version is the view of Malebranche and Berkeley.[201] According to them, since there are no real

[201] Sukjae Lee, "Occasionalism," ed. Edward N. Zalta, *The Stanford Encyclopedia of Philosophy* (Metaphysics Research Lab, Stanford University, 2016), https://plato.stanford.edu/archives/win2016/entries/occasionalism/.

natures nor causes nor essences, everything is an illusion. This account, undeniably the clearest among the three, falls short of explaining how God creates anything without any property. It is simply unintelligible to create a rock without hardness or a window without its disposition to break when it is hit by a rock. After all, properties are what makes a thing this thing. In fact, this is not a big concern for proponents of this view since in their view the nothing is real but God. But an ontology admitting only one real being should be considered beyond the pale of intellectual discussions about reality.

Theological Problems

Aside from metaphysical worries, one could still hold the view that God is the only being with the power to bring about change. Then we are justified to ask: why is it an issue when we attribute power to bring about effects to creatures, but it is not an issue when we attribute being to creatures? Differently stated, the Occasionalist discredits the idea that God and the creatures share power, but she does not discredit the idea that God and the creatures share being. Unless she is fully committed to Berkeley's idealism, thus rejecting all reality but God's being, her sensitivity towards attributing power to both the Creator and the created beings misses the mark.

A second objection is raised by Aquinas. For him, a divine being who creates capable beings is better than a divine being who creates incapable beings. In other words, God is more praiseworthy if He created things with the ability to bring about

effects in themselves and others.[202] The basic intuition behind this claim is that having the power behind creating objects with a larger set of capacities is better than having the power behind creating objects with a smaller set of capacities. Since God is the perfect being in all respects, it is more suitable for Him to create objects with a larger set of capacities. Differently said, a divine being who creates puppets is less sovereign than a divine being who creates real agents.

A third objection is acknowledged by Plantinga.[203] For him, if Occasionalism is the case, then God is the direct cause of evil in the world. In contrast to secondary causalism, which hints that God is only indirectly and remotely responsible for evil. It is, of course, preferable making him remotely responsible for murder to making Him directly responsible for a murder. Since the problem of evil is not my focus here, it will suffice to say that the problem worsens in the Occasionalist theology.

A final objection can be made on the grounds that Occasionalism does not allow one to connect God with the world. That is, if the world has no reality, then a real relationship between God and the world is impossible. For theories of divine providence, this conclusion is highly dubious. For instance, God does not really answer prayers because there actually is no real being who is praying.

[202] Freddoso, "Medieval Aristotelianism," 104.

[203] Plantinga, "Law, Cause, and Occasionalism," 142.

Epistemological Problems

The basic epistemological challenge to Occasionalism concerns the possibility of knowledge. It states that if nothing is real, then how can truth be acquired? If Occasionalism is true, then three most fundamental realms of truth are at risk:

First, the connection between two natural objects is severed. Occasionalism suggests that the world is inhabited by empty, unintelligible beings and their (at least theoretically) inconsistent motions. In this regard, the discovery of nature is rendered pointless. When there is no real connection between objects, acquisition of scientific knowledge must be regarded a futile effort.

Second, any interaction between the observer and the world is severed. So, our empirical knowledge is just illusory. Even worse, God seems to deceive the observers since there appear to be laws of nature when in fact there are not; a conclusion which is not welcome by any theistic theology. Related to this, it can be argued that the free will is very unlikely in the Occasionalist theology since the human agent is left without any real option. To overcome this challenge, different versions of the Ash'arite theory of *kasb* have been formulated to make room for a half-efficient yet still completely dependent human will. Their success is highly controversial.

Third, the theologically vital association between the observer and God is severed. If Occasionalism is true, then the cosmological arguments, which are based on the intelligible structure of the universe, lose their force if the cosmos has, in fact,

no real structure. A very big chunk of evidence which is generally thought to be pointing to divine wisdom and power is completely discarded. Moreover, the problem is not limited to cosmological arguments. If our mental projections of the world and our concepts, including causation, are baseless, so is our concept of God. An Occasionalist has, in fact, no reliable conceptual basis on which she could exalt the Creator.

This section has attempted to demonstrate that the tension between divine sovereignty and the efficacy of secondary causes may appear to be eased by Occasionalism's denial of the latter's existence. Nevertheless, such a denial costs it so many metaphysical, theological, and epistemological problems that do not seem to be easily resolved. To avoid deism, theistic naturalism, and Occasionalism, an alternative account of secondary causalism is offered under the name of Concurrentism. The next section evaluates the strengths and weaknesses of this account.

d. Concurrentism

Concurrentism is the view that one and the same natural effect is brought about by both God and natural causes. The advantage of concurrentism lies in the fact that it promises to deliver an understanding of creation which consists in not only God's immediate creative activity but also the efficacy of natural causes. Assuming an Aristotelian notion of powers,[204] it mainly focuses on building up the

[204] Ott, *Causation and Laws of Nature*, 22.

production thesis by invoking the cooperation of God and secondary causes. By this way, the Concurrentist intends that neither divine sovereignty nor the integrity of nature would be eschewed. The manner in which it is justified varies in accordance with how to distribute causal responsibility among two parties. It can be held that God and the natural cause bring about different effects, or that their contributions are distinct not in virtue of distinct effects but in virtue of distinct actions. In this section, I analyze various Concurrentist models of creation in order to find out how successful they are in characterizing the relationship between the first cause and secondary causes.

A simple model can be formulated by considering the effect resulting from two independent causal acts, one divine and another natural. In this formulation, the effect is simply a combination of two separately caused effects. The natural effect can be directly and immediately attributed to the natural cause while divine effect can be directly and immediately attributed to God. But does splitting the effect explain cooperation? If they produce separate effects first, and later their effects form a single effect, then we have two problems. First, this is not a cooperative case of causation since they simply do not cause the same thing. Second, the main question seems to be only pushed further. This time it can be asked how it is possible that one effect can be attributed to both God's *effect* and *the effect* of the secondary cause. If there is an independent principle that regulates how two parties are involved in a single case of causation, then we lack an explanation for this principle as to whether it should be attributed to God or nature. In either case, the question of how they combine will not be answered unless a further causative

principle is postulated. When Aquinas attributes giving of *esse* to all beings to God while attributing giving of their character to the natural causes, he rejects that their contributions are partial.[205] Instead, the contribution of the each must affect the same whole. Therefore, a case of cooperation cannot possibly explain the relationship between the first cause and secondary causes, unless a single, unitary effect is assumed. As Freddoso[206] demonstrates clearly, the Concurrentist theology should propose nothing but a single effect for the sake of consistency.

Alternatively, one can adopt the strategy of dividing the action while affirming the unity of the effect. This can be formulated as God being the universal while nature being the particular cause of the natural effect as in the case of a child's dependence on both fatherhood and his particular father. Similarly, it can be formulated as God being the principal cause while nature being the instrumental cause as in the case of when I slice the bread, I am the principal cause while the knife is the instrumental cause. However, in any case, the causal contribution of each needs to be clarified.[207]

Given there is a single effect, it can be suggested that either of the actions is sufficient alone to produce the same effect. It is either God or the rock that could break the window. This suggestion is incompatible with the basic proposal of

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[205] Alfred J. Freddoso, "God's General Concurrence with Secondary Causes: Pitfalls and Prospects," *American Catholic Philosophical Quarterly* 68, no. 2 (1994): 138.

[206] Freddoso, "Pitfalls and Prospects," 147.

[207] The following suggestions are adopted from Freddoso, "Pitfalls and Prospects,"151-153.

Concurrentism because, on the one hand, if it is the case that the rock is sufficient alone, then it is affirmed that secondary causes can produce without the primary cause's involvement. On the other hand, if it is the case that God is sufficient alone, it takes God's agency as standalone instead of concurring with the natural causes. Thus, this suggestion should be ruled out.

Given there is a single effect, it can be suggested that only one of them is sufficient alone to produce the same effect. If this is the case, it should be true that I can slice the bread whether I use the knife or not. Or, it should be true that fatherhood can be responsible for a child's birth even though there is no particular father. Even though one can grant that it is possible for God to create any effect without the secondary cause's involvement, this would not be a case of divine concurrence. That is, an Occasionalist would happily claim that this suggestion is just another affirmation of her doctrine. Thus, this suggestion should be ruled out too.

Given there is a single effect, it can be suggested that both causes are sufficient alone to produce distinct effects if they do not cooperate. That is, their cooperation produces another effect which is not producible in the absence of either. However, this is just another case of the rejected model, which suggests that there are two effects. This suggestion only differs in that it is not discarding the steps between the first effects of either causes and their joint effect. Thus, this suggestion should also be ruled out.

Finally, given there is a single effect, it can be suggested that neither God nor secondary causes in nature is sufficient alone to produce the natural effect. So, it is suggested that only the cooperation of them is sufficient for the effect's production. This suggestion appears to do justice for both parties without even dividing the effect. Nevertheless, it implies that God -like natural causes- is a being incapable of producing effects when conditions are not met. If one can affirm that God can be an 'incomplete' cause of a natural effect, then this suggestion will be his best option. Yet, for the theist, this consequent can still be considered repugnant since it attributes imperfection to God.

This section has reviewed various accounts of creation. Deism and theistic naturalism are two opposite views regarding the question what creation is. Yet, they have a shared feature of undermining divine sovereignty. When we set them aside, we have the accounts of Conservationism, Occasionalism, and Concurrentism. Conservationism does not deliver a clear understanding of the nature of the divine act of conservation when natural change is completely attributed to secondary causes. It collapses the sustenance thesis with the temporal origination thesis, and the result is that the conservation is but continuous creation. In contrast, Occasionalism clearly embraces this result to emphasize that creation refers only to the temporal origination thesis. However, it causes more problems in the metaphysical, epistemological, and theological planes than it solves. Concurrentism is designed to counter Occasionalist postulations. But it fails to offer an adequate account of cooperation without undermining either divine sovereignty or the

integrity of nature. In the next section, I present the principle suggestions of the Ontological Dependence account.

V. Ontological Dependence

It is obvious that the attempt to construe the cooperative action of God and secondary causes is not successful. The problem stems from the tendency to apply the model of natural causation to creation without qualification. As I said earlier, creation may be modeled after causation because the element of dependence is common to both. However, one must be cautious about referring to them analogously. On the one hand, causation occurs through a series of changes in things, like transformation, transmission, or transaction of properties. It denotes a process of change. On the other hand, creation refers to the fact that all abstract and concrete beings, their properties, interactions among and between them, all mechanisms, forms, and the processes exist on the ontological ground provided by God. Creation calls for no change in the created object because the object of creation is the object's being. In this respect, creation is a transparent divine action, equally affecting everything in existence: like the dependence of the dream on the dreamer,[208] or the dependence of the fiction characters on the author,[209] or the song

[208] James F. Ross, "Creation," *The Journal of Philosophy* 77, no. 10 (1980): 618.

[209] W. Matthews Grant, "Divine Universal Causality Without Occasionalism (and with Agent-Causation)," in *Free Will and Classical Theism: The Significance of Freedom in Perfect Being Theology*, ed. Hugh J. McCann (Oxford, New York: Oxford University Press, 2017), 175–200.

on the singer, or the thought on the thinker.[210] This is just another way of saying that nothing's existence is found in its essence, except for God. Hence, Ontological Dependence underlines the importance of the contrast between causation and creation, which other accounts of creation seem to take lightly. Causation, too, must be conferred existence by God, just like other beings. Given some related object existing in nature, their relation will hold. In sum, Ontological Dependence affirms that creation consists in receiving existence, and that creation is explanatorily prior to causation. Here, creation encompasses the existence conferral thesis.

Ontological Dependence does not appeal to the universe's inability to continue to exist from one second to the next. In fact, considered as an aspect of created reality, the phenomenon of the temporal succession of events is created. Nevertheless, this does not amount to denying God the sustenance of the world. He sustains the world by creating the necessary structures along with the contingent beings. One may be tempted to read this as God's decision to turn some possibilities into necessities. This is not implied here. Necessary structures are necessary regardless of their obtaining or not. In contrast, contingent beings are constantly changing, transforming within limits set by necessities. Contingent beings necessarily obtain if and only if all conditions including matter, form, place, and time are provided. It follows that being is not a property to be given independently of

[210] James F. Ross, "Creation II," in *The Existence and Nature of God*, ed. Alfred J. Freddoso (University of Notre Dame Press, 1983), 115–141.

other properties.[211] If any property which is sufficient to bring about an effect is given, then the essence of the effect receives existence from God. They are what we can also call possibilities, or states of affairs, or logical consequences of necessary structures. These things which are in the causal nexus persist so long as conditions allow. When conditions do not allow, they simply perish. God sustains possibilities by grounding them in necessary structures, not by conserving them through time nor by producing them more than once. Hence, the questions concerning when and how long those possibilities hold are irrelevant to divine sustenance. Here, creation encompasses the sustenance thesis.

Since Ontological Dependence severs ties with the causation, it is difficult to formulate it to incorporate the temporal origination thesis. This difficulty does not emerge due to conceptual limits of Ontological Dependence, but due to the historical practice that conceptualized the temporal origination in terms of causation in nature. As I stated earlier, my proposal neither denies nor sanctions the temporal origination thesis. Per contra, the production thesis cannot be incorporated into Ontological Dependence, as this practice is exclusively assigned to nature. The fact that new configurations of matter and form can develop or vanish in nature does not mean that a non-natural activity is effective in their production.[212] Whatever is produced in nature is a product of nature, regardless of whether it appears for the

[211] Ross, "Creation II," 136.

[212] Thomas F. Tracy, "God and Creatures Acting: The Idea of Double Agency," in *Creation and the God of Abraham*, ed. David B Burrell et al. (Cambridge University Press, 2010), 221–38.

first time or it persists so long as conditions allow. Of course, the new product is also created, but this is not in virtue of its being newly produced. It is created in virtue of its being. As Ross explicates:

> "God is not the agent of the sun's motions. (…) God does not move the sun; He makes the moving sun to be. So, the movements of the sun are God's effects [creations], even though he does not move it."[213]

It might be objected that the Ontological Dependence account makes it impossible to formulate a relationship between God and secondary causes due to its characterization of creation as sui generis. I grant that this objection is on point, even though I do not think that this is a big issue. Apparently, the Ontological Dependence account is designed to explain creation. However, if the proposal of Ontological Dependence is true, any explanation is posterior to creation. In other words, creation offers more explanations to beings, than any being can explain creation. Thus, the conclusion that creation will always remain beyond our conceptual limits does not embarrass the proponents of the Ontological Dependence account.

What could other objections be raised against Ontological Dependence account? This is the subject of the next section.

VI. Objections to Ontological Dependence

The characterization of God's relationship with the causes in nature is problematic in many ways but taking nature as an integral whole which results from

[213] Ross, "Creation II," 130.

the causally necessary interactions between objects is thought to be more problematic. The common approach is that if the world is inhabited by contingent states of affairs, God's involvement can be justified by appealing to their obtaining. In this case, God is taken responsible for the effective choice over possible states of affairs. The main reason this view is common seems to be that necessary states of affairs are considered beyond the reach of divine power. If causal necessity is affirmed, then the influence of God's power is once again limited. In fact, it will shrink to individual experience. As I have demonstrated in the second chapter, causal necessity is the most reasonable explanation for the integrity of nature. Nonetheless, I have also shown in the third chapter that God is sovereign over everything else. In this chapter, I have reviewed several accounts which offer independent ways to deal with these two conclusions, some of which attempt to reconcile, including mine. The Ontological Dependence account proposes that a natural effect is caused by natural objects while at the same time created by God. This, it adds, does not rule out causal necessity nor weaken the sense of divine sovereignty. I will consider possible metaphysical and epistemological objections to this proposition and respond to them separately.[214] They will help elaborate my proposal.

[214] The structure of this section heavily draws on Grant, "Divine Universal Causality," 185-196.

a. Metaphysical Objections

Since a metaphysical division of labor, in a way that suggests the production of two separate effects and letting them combine, is ruled out in our discussion of Concurrentism, and provided God's and nature's actions are separate, then it could be argued that the one and the same object is produced twice.

My proposal does not entail that both God and the natural cause are sufficient for the effect's existence. It does not cancel out the metaphysical possibility that natural objects are necessary but not sufficient conditions for the effect's coming to be because of the fact that the effect's production requires also a simultaneous exercise of the divine act of conferring existence. In this, the exercise of the causal powers of an object to produce an effect depends metaphysically on God's exercise of His creative power. After all, to be able to produce the effect, the natural cause does not have to be exclusively responsible for the effect's production. Creation, on the other hand, must be both a necessary and sufficient condition for the effect's being. This does not render ingenuine the operation of the natural cause.

It can still be argued that given there is no division of labor and creation is both necessary and sufficient for the effect, all the needed components of the effect are satisfied by God. The natural cause cannot really be effective then.

This objection assumes that for something to be real, it must be independently operating. However, in my proposal, causation is an instrument of creation in time. Given the essential features of a thing, when antecedent conditions are right, it is necessary for the effect to follow so long as God is simultaneously

creating all involved parties. There is actually no known argument for the assumption that a real cause cannot simultaneously be created.

A third objection can still be raised by arguing that if God is doing all the work in the effect's production, and given that His creation is all-inclusive, what would be the causal contribution of natural objects? In other words, it does not make any difference whether there were right antecedent conditions, nor whether the natural cause and effect have essential features.

This objection assumes that creation and natural causation are competing causes; if God does the job, causes will be redundant; if causes do the job, God will be idle. However, I propose that it is not the case that God's creation of the effect is an alternative to the causation of the effect. They are both necessary: Creation is necessary because without creation there would be no cause. The natural cause is necessary because it is the way in which God creates the effect as an effect. This last point does not entail that God is in turn dependent on the natural cause to create the effect. God may have an infinite number of ways to bring about the same effect. And, the cause is still a real cause even though its effect can be produced by other causes.

b. Epistemological Objections

The last answer to the metaphysical objections brings us to the epistemic problem of causation: what is the reason we assert two causes for the same object (or event) when we can assert only one? After all, the principle of parsimony dictates that the lesser is better when the lesser is possible.

I think if we have a good reason to believe in God, and if you have a good reason to believe in the integrity of nature, there is no superfluous information when creation is admitted. This is because the whole existence of the effect will only be explained partially if it is limited to causation. A vital part of explanation regarding the ultimate source of its existence will be left out. Creation completes the explanation, not duplicates nor replicates it. Creation and causation are not separate accounts of explaining the same phenomenon. They are complementary expositions of how something is produced and conserved in nature. Causation increases the intelligibility of the world by reflecting upon the relationships between objects that are identified by practices of different epistemic disciplines.[215] If it is admitted that causation enlarges our understanding of the objects by adding a theoretical dimension, it can also be suggested that creation offers an extra layer of intelligibility for the whole universe by connecting it to the transparent, immediate, and complete power of the sovereign God. Hence, creation deepens our knowledge of the reality by making intelligible something that cannot be made by causation: existence.

However, even if it is true that creation adds an extra layer of intelligibility, it may still be argued that we cannot postulate more than one sufficient cause. My answer would be that my proposal does not offer more than one complete and

[215] James R. Pambrun, "Creatio Ex Nihilo and Dual Causality," in *Creation and the God of Abraham*, ed. David B Burrell et al. (Cambridge: Cambridge University Press, 2010), 192–220.

independent explanation. Creation is sufficient for all production. It functions independently of anything else. Causation is not like that; it is neither complete nor independent. It does not determine the effect as an independent condition. Still, this does not mean that it is superfluous because it delivers us a sort of knowledge that is not delivered by affirming the statement 'God creates.' This statement holds true for all cases in the end, but causation tells us the invaluable part of the story by offering answers to the question 'how God creates.'

C. Conclusion

In this chapter, first, I have shown that neither Plato's nor Aristotle's proposal for the order and unity of the universe is adequate for a theistic understanding of creation. Second, I argued that Avicenna's universal account, which is based on but not limited to Plato's and Aristotle's accounts, is highly effective in satisfying the needs for a comprehensive understanding of creation. Third, I claimed that we have a better proposal if we clarify Avicenna's terminology and intensify his central thesis by relieving it from the unnecessary conceptual burden imposed by the Neoplatonic ontology. Fourth, I analyzed five rival accounts of creation and concluded that they fail to ensure either divine sovereignty or the integrity of nature. Finally, I have shown that, when understood in terms of the Ontological Dependence account, creation promises a better and more complete understanding of the world's dependence on God. It not only recognizes God's sovereignty but also secures the integrity of nature.

Conclusion

A century ago, Bertrand Russell announced that the idea of causation is outdated on the grounds that:

> "The law of causality, I believe, like much that passes muster among philosophers, is a relic of a bygone age, surviving, like the monarchy, only because it is erroneously supposed to do no harm."[216]

Nevertheless, time proved Russell wrong. Causation survived the attacks of Hume and his followers such as Russell. Although it is true thata modern scientist is not as much concerned with causation as her medieval counterparts, causation as part of metaphysics remains a very rich and highly advanced field of study. This is partly because nature has never been and will never be considered as lacking a consistent, uniform, and regular structure. Whether in the form of an animal, or a machine, or an evolving pattern,[217] nature has always been conceived as an integral whole.

As shown in the first chapter, nature as an integral whole is explained by Aristotle and Avicenna with reference to causal necessity. Their powerful arguments for causal necessity are backed by their physics and metaphysics respectively. Even though al-Ghazālī's objection to the epistemic status of causation and its echo in Hume's works influenced a wide area of investigations, and gave way to modern

[216] Bertrand Russell, "On the Notion of Cause," *Proceedings of the Aristotelian Society* 13 (1912): 1.

[217] Robin George Collingwood, *The Idea of Nature* (Oxford University Press, 1960), 23.

empirical sciences, causal necessity remained a strong explanation for nature's reliable and uniform operation. The second chapter reviewed the Platonic idea of the extrinsic necessity as well as the Humean-inspired regularism as alternative explanations. However, it has been revealed that neither succeeds to account for the integrity of nature.

In the third chapter, I made the case for divine sovereignty by appealing to divine attributes. My discussion has revealed that when qualified by simplicity, eternity, and immutability, the divine attributes of omnipotence, omniscience, and omnibenevolence entail that God's sovereignty is absolute. That is, it does not leave anything outside the reach of sovereignty. Necessary truths, including logical and causal necessity, are not exceptions. This conclusion enabled me to discuss several accounts of creation such as Conservationism, Occasionalism, and Concurrentism. Even though each of them has merits of its own, none is successful in conceiving the perfectly sovereign God while affirming the integrity of nature. My proposal, Ontological Dependence, which is an extension of Avicenna's emanationist account of creation, consists in admitting that God creates by conferring existence and sustaining all beings other than Himself. The last chapter has exposed how God's creation is reconciled with causation in nature without compromising either divine sovereignty or the integrity of nature.

The implications of my necessitarian view of causation and my Ontological Dependence account demand further research. This dissertation is expected to serve

as a humble step towards an understanding of creation as not only compatible with but also complementary to causal necessity in nature.

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The Presidency of Religious Affairs of Republic of Turkey, *(a government agency)*, Kirikkale 2008-2009

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Vaha Dergisi, *(Vaha/Oasis Magazine - Quarterly semi-popular graduate student magazine)*, Ankara 2005-2008

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Kitabiyat Yayinlari/Islamiyat Journal, *(an academic publishing company)*, Ankara 2006-2007

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SOCIAL EXPERIENCE

Zinde Grubu, (a student organization focusing on social attractions and academic events), 2005-2008

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