RECONSIDERING WILLIAM PALEY'S *NATURAL THEOLOGY*: AN ANALYSIS OF ARGUMENTS FROM DESIGN TO INTELLIGENT DESIGN

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This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

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ABSTRACT

RECONSIDERING WILLIAM PALEY'S *NATURAL THEOLOGY*:
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TO INTELLIGENT DESIGN

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The aim of this study is to analyze the arguments from design to intelligent design and to present the main philosophical aspects of design arguments. Without examining the conceptual background of design arguments, it is not possible to understand their roles in philosophy, theology and science. To this aim, first the philosophical usage of the argument is explained into three categories: argument from design, argument to design and intelligent design. Next, in order to provide a deeper analysis, William Paley's *Natural Theology* in its closer relation of the natural sciences and theological discourse are examined. Lastly, through the philosophy and metaphysics of design, the framework of intelligent design is discussed. Consequently, the process of design arguments can be analyzed through the concept of intelligence rather than design in the history of philosophy since it is closely related to the religious and scientific way of understanding of nature. William Paley's argument to design is, thus, a fragile point between the classical and contemporary versions of design arguments.

Keywords: William Paley, Natural Theology, Intelligent Design, God.

ÖZ

WILLIAM PALEY'IN *DOĞAL TEOLOJİ*'SİNİN YENİDEN ELE ALINIŞI: TASARIM ARGÜMANLARINDAN, ZEKİ TASARIMA BİR ANALİZ

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Bu çalışmanın amacı tasarımdan zeki tasarıma kadar tasarım argümanlarını analiz etmek ve felsefi özelliklerini ortaya koymaktır. Tasarım argümanlarının kavramsal arka zeminini açıklamadan, bunların felsefede, teolojide ve bilimdeki rollerini anlamak mümkün değildir. Bu amaçla argüman üç kategoride açıklanmıştır: tasarım argümanı, tasarımcı argümanı ve zeki tasarım. Daha sonra daha derin bir analiz için William Paley'in Doğal Teoloji'sinin doğal bilimler ve teolojik söylemle sıkı bağları açıklanmıştır. Son olarak, tasarımın metafiziği ve felsefesi zeki tasarımın kavramsal çerçevesi bağlamında tartışılmıştır. Nihayetinde tasarım argümanlarının aşamalarının tasarım kavramından değil de zeka kavramı üzerinden felsefe tarihinde analiz edilebileceği sonucuna varılabilir; çünkü argüman doğayı dinsel ve bilimsel içerikli sıkı ilintiler yoluyla kavrar. William Paley'in tasarımcı argümanı, dolayısıyla, tasarım argümanlarının klasik ve çağdaş biçimleri arasında bir kırılma noktasıdır.

Anahtar Sözcükler: William Paley, Doğal Teoloji, Zeki Tasarım, Tanrı.

To My Mother and Grandma

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Finally, an honorable mention goes to my mother and grandma. Despite the tragic disruptions, they kept extraordinary and permanent patience along the preparation process of this dissertation. Without their encouraging existence and support the present thesis would hardly come into being.

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LIST OF ABBREVIATIONS

***Dialogues*:** *Dialogues Concerning Natural Religion*.

Natural Theology: *Natural Theology or Evidences of the Existence and Attributes of the Deity: Collected from Appearances of Nature*.

AD: Argument from design.

NT: Natural theology.

IBE: Inference to the best explanation.

ID: Intelligent Design.

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CHAPTER 1

INTRODUCTION

The rising interest on intelligent design resulted in republishing of William Paley's *Natural Theology* three years ago by Oxford University Press. Why has Paley's *Natural Theology* become so popular 200 years later? Why does it still deserve to be reconsidered by philosophers, theologians and scientists? Is *Natural Theology* merely a speculation on the fancy concept of God rather than being an argument? Or is it an attempt to establish a new kind of knowledge and philosophical argument quite different from the classical theological proofs? Moreover, what are the distinguishing features of Paley's argument from other design arguments? Why is Paley particularly taken as the philosophical background instead of the other classical versions of the design argument by the contemporary Intelligent Design supporters?

I think these questions are good questions for analyzing the Paleyan form of the argument from design. The main purpose of Paley which appears in the subtitle of his masterpiece is to collect evidence for the existence and attributes of the Deity from the appearances of nature. This assertive subtitle of the book, *Evidence of the Existence and Attributes of the Deity collected from the appearances of nature,* gives clues about the author's main concern. On the one side there is nature whose reality and working mechanism are defined by scientific activities in a naturalistic approach, and on the other side there is Deity whose existence and attributes are defined by theological explanations in a conceptual and religious discourse. Between these two tendencies the key concept is *evidence* for the existence of God that can be collected from the appearances of nature. As the title of the book suggests, Paley clearly tries to reconcile these two into the argument *to* design as natural theology. Since this dissertation does not focus on the traditional discussions of

philosophy of religion, I will not attempt to answer as to whether and how theology can be natural. However, I intend to ask and extensively analyze the structure of Paley's argument, the definitions and conceptions in his explanations by comparing classical and contemporary versions of design arguments. The main question here is to solve which philosophical points play the key role in order to make Paley the bridge between the classical and contemporary versions of design arguments. In other words I will analyze the historical and conceptual processes of design arguments in three sections: argument from design, argument to design and intelligent design.

Theology and religion are often used synonymously in some philosophical studies. But natural theology and natural religion can not be compared particularly in Paleyan framework. The last chapters of his book which are devoted to the personality of the Deity show us a Biblical interpretation of the universe that is sustained by Paley. Thus it can not be considered as a search for natural religion. *Natural Theology* has many aspects that should be analyzed by the theologians; however, this dissertation is not responsible for espousing the religious doctrines of Paley.

My main point is first, to discuss the distinct character of his argument compared to the historical ones; secondly, analyzing the philosophical status of evidence and the argument from design; and thirdly, examining Paleyan effect on the Intelligent. Design Movement which claims to be a bridge between science and religion, i.e. *Creation Science*. This study is therefore a philosophical one and in order to limit the topic, I do not discuss what sorts of moral inferences can be drawn in the discovery of design in nature and in the will of God.

The argument from design (AD) is one of the arguments for proving God's existence. There is a prolonged discussion on the topic whether it can be accepted as an argument similar to the classical arguments (namely ontological, cosmological and teleological) or it is one of the forms

of teleological explanations of nature. However, I think that there are three cornerstones of the argument from design in the history of philosophy: At the one corner, there is David Hume who criticized the whole preceding authors of the philosophy of religion. Among these authors there are many great names such as Philosophers of Miletus, Stoics, Plato, Aquinas, etc. Hume left no possibility for constructing an argument from design based on a religious framework. He strictly rejected proving the divine existence of a supernatural designer through a posteriori arguments. At the second corner, there is William Paley who wrote *Natural Theology* (NT) approximately more than a hundred years after Hume's criticism and never refrained from establishing new analogies in order to explain divine action. His famous watch analogy invited the debate on the notion of design and the epistemological boundaries of analogy and explanation. His telescope analogy resulted in a discussion on the definition and the comparison between artifacts and natural objects. Additionally, Paley is the turning point of the philosophy of religion, and biology is considered as an *evidence detecting tool* for the claims of metaphysics in his illustrations for the argument. Of course, Paley comes from the great tradition of Anglican theology. He is not an author of the tradition of natural theology but he is the father of the philosophical ground of the Intelligent Design (ID) movement which emerged in the late 1950s. After Paley, thirdly, Darwin changed the direction of the discussions through his explanation of nature as a product of natural processes. This mechanistic point of view carries with it the naturalistic aims of modern science. Due to well-known naturalistic principles of natural sciences, Darwinian explanations seem more sensible by scientists. After Darwin, the relation between science and theology has become more fragile. Neo-Paleyan thinkers such as Michael Behe and William Dembski try to establish the principles of a new and non-naturalistic science in order to convince us that the argument from design is scientifically possible, philosophically qualified, religiously acceptable. Their argument from design is called Intelligent Design Movement. This

movement does not have a long history as AD but it is not wrong to say that ID owes its most philosophical principles to Paley's argument from design.

This dissertation is based on a comparison between historical and contemporary perspectives on the Paley's argument to design. The study is an analysis of the *arguments from design* to *intelligent design*. The title reflects and emphasizes this position. If we accept that this argument is like a tree whose roots are deeply expanded under the soil, since the argument has a long history, we now try to investigate the taste of the fruits of this huge, aged tree. Are the fruits of this tree delicious enough to be entitled as philosophical? Or are they poisonous because of their effects on science and religion? In order to discuss the tension between science and philosophy, as an introduction to our core topic, it is necessary to summarize the way of philosophizing God in history of philosophy and in the Anglican tradition where Paley comes from. I suggest analyzing the argument into three different modes; namely argument from design (AD), argument to design as natural theology (NT), and intelligent design (ID). I think, making the underlying claims of these different modes of argument from design clear is significant because of the current creation-evolution struggle. The purpose of this study is not just to add some historical comments to this philosophical discussion but also prepare a concrete epistemological and metaphysical ground by comparing the various versions of the design arguments and their conceptual frameworks. I think philosophy plays a significant role in the current creation-evolution struggle. This struggle increases a public interest in the correspondence between religious studies and natural sciences; and the philosophical analysis of the problem may serve both parts of the debate in terms of sustaining a proper way of using concepts. To this extent, my analysis of the three different modes of the arguments promotes a conceptual outlook to the problem by regarding the details of its historical process. Through this analysis I emphasize to show Paley's position and investigate the differences

between the design arguments because of the fact that Paleyan argument to design determines the fundamentals of contemporary ID followers' *scientific* framework.

In addition to this historical investigation of the argument, here I am especially interested in Paley's conceptualization of design and presentation of the intelligence of design in the boundaries of the epistemology of science and philosophy of science. *Natural Theology* is not a pure theology book or a work of philosophical theology but I think it is an *explanatory* model constructed by Paley as an argument to design. Neo-Paleyan works against Neo-Darwinians particularly represent this integrated structure of Paley's argument to design. I think the epistemic warrant of Paley's argument is based on the integrated conceptualization of nature and God, design and intelligence. Opposed to the classical versions of the argument from design, Paley's *argument to design* claims that the attributes of God (i.e. intelligence of the designer) are evident from the designed universe.

William Paley's *Natural Theology* is an attempt to prove the existence of God as an intelligent designer through collecting evidence from natural appearances. This seems quite interesting because God, evidence, and nature are composed in the same argument to secure religious faith. This is, in short, an explanation of divine action. The statements in *Natural Theology* examined in detail in the following chapters can be summarized as follows: For Paley, the perfection, function and interconnection of natural entities are the result of a mindfully espoused schema. He simply exemplifies excellent interconnection and interfunction of nature by giving perfect mechanism of bones, muscles and vessels in animal bodies which are owed this excellence to a wise designer. The configurations of bones with the tendons, nerves and vessels, especially different structure (i.e. being soft and hardly formed) of the patella (knee-pan) shows us how perfect mechanical structure of the body is designed by an intelligent designer. So this universe is more than an ordinary design.

These features (perfection, function, interconnection, etc…) of this designed nature are considered as evidence for the existence of intelligence. For Paley, such a perfect creation and intelligence only belong to God. Therefore, the intelligence of designed nature refers to God and his creating activity.

A completed, perfect and timeless nature is hard to be accepted by humankind. We all accept that an organism is not an object of faith but subject to scientific investigation provided by experience and reason. The inductions and inferences of analysis of an eye in our speculative mind can be unlimited, but the being of an eye as a reality is free from all theological presumptions. It is certain that to show that there is an intelligent design in nature is not so simple. The difficulty of explaining the existence of an intelligent designer in terms of the relationship between experience, reason and faith has lead to controversies. According to some well-known and basic definitions, experience is a way of learning about the external world. Reason constructs relations on what has been learned. And faith dictates some kind of knowledge free from searching truth values in the context. Now, it is obvious that truth in natural theology is different from the truth value of the premises of natural sciences. According to this reasoning, if we take Paley's watch analogy, we see that an arrangement, or a mechanism, or regularity forces us to infer the existence of a maker; because we had no experience anywhere or any time about such a self-forming complexity. Similarly, Paley uses the general tendency of our reasoning based on experience which rests on the claim that when there is an adaptation of means to ends, or interconnected operations for a particular purpose in organisms are observed, it is concluded that this capability should be a result of a designer. This inference stems from the relation between the known and the unknown.

In the history of philosophy, there are many attempts to prove for God's existence. Arguments for the existence of God have taken many different forms such as cosmological, ontological, and teleological.

Generally speaking, these arguments have two major methods: A priori and a posteriori.[1] A priori method is based on the inference(s) of external and objective facts from ideas and principles of mind. In this method, an idea is proved by another idea. Thus, a priori proofs are free from any evidence drawn from experience. On the other hand, a posteriori arguments originate from something one can empirically know and accept. Ontological argument is a good illustration for a priori proofs. It focuses on the distinctive quality of God's being. Ontological argument makes a definition and then claims that God exists by definition. For the users of this argument, evidence for God is out of question since He is self-evident. On the other hand, a posteriori method reasons from facts, and sometimes from analogies in human experience. According to this clarification, cosmological arguments and teleological arguments are a posteriori. To illustrate, cosmological arguments chiefly assume that if something exists then there must be a beginning, a first cause, namely God.[2] The teleological argument infers God as the source and purpose (*telos*) of the order in the universe.[3] According to our sense data there is no chaos in the universe, rather there is an order and that order implies a governor. However, sometimes naming these arguments is not so clear cut since the subject matter is God. There are various forms for classifying the proofs. The soundness of these arguments is not our concern here.

Throughout history of philosophy, philosophers have been in need of explanations that would make the supernatural and the transcendental comprehensible.[4] Why is it necessary to prove that God exits? Is it possible to prove a divine being? What is divine? What sorts of evidence(s) can be considered as evidence for such a supreme being? Does nature

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[1] Davis, S.T. *God, Reason&Theistic Proofs*, WM.B.Eerdmans, Cambridge, 1997, p.xi.

[2] Hick, J. *Arguments for the Existence of God*, Macmillan, London, 1970, p.37.

[3] *Ibid,* p.18.

[4] Richmond J., *Theology and Metaphysics*, Scm Press, London, 1970, p.2.

"really" give us any evidence? What is the benefit of proving God through the appearances and mechanisms of nature? Do religions give us plausible knowledge? What is the role of philosophy in this discussion? Philosophers have been trying to answer these questions but their position is rather to produce more questions. I am not concerned with the philosophy of religion in order to limit the framework of our subject. I want to draw attention at the strategies and methods of proving God's existence which perhaps will never come to an end. The role of philosophy is not judging the religious feelings in general, or investigating the function of faith in particular; but philosophy examines the consistency and epistemological status of such arguments. Theological analyses specifically consider the religious, textual context and dogmas. Prior to all theological concerns, philosophers desire to know what is hidden beyond the reality presented in our senses. Basic cosmological processes, such as sunshine, night, routine changes of seasons were the objects of the search and explanations of philosophers. Historically, it would not be wrong to say that the structure of the arguments were not theistic until the monotheistic religions emerged. For the philosopher, the knowledge of God as Creator may come as the conclusion of a purely rational argument, while theologians accept by revelation that God is creator. My position here is neither to judge a belief, nor to invent a new conception of God; but to present the discussion.

To return to Paley's strategy as argument *to* design, it is true that we have no direct experience of God's being or His designing process. Thus understanding this intellectual motive of the argument from design is as significant as Paley's presentation of the evidence. I consider the philosophical significance of the argument on the concept of designer's intelligence as well. The agency which is inferred from Paley's argument is spiritual and immaterial. His intelligence is considered as a superior, more powerful, more skilful version of our minds. The intelligence of the designer does not come from the perfectness of his design because Paley accepted in various parts of his book that this universe has some imperfections.

Thus, the intelligence of the designer, and its status as the first-cause, creator and governor of the universe all inferred from the religious figure of divine being. He is comprehensible, but does not exist in reality like an ordinary being. This comment becomes definite in the later chapters of Paley's book even as he explains the personality of the deity. He believes that the attributes of the designer do not come from the designed structure of the universe but come from His intelligence.

Prior to Paley, there were many philosophers who thought that the universe is a contrivance made by a superiorly intelligent mind. The harmony of the movements in the universe, the changes of the elements and the relation between void and being were all considered as the indications of the existence of an intelligent designer. In order to understand what Paley says, it is important to review the ideas of preceding philosophers.

Chapter Two begins with a very brief summary of the earlier forms of the argument from design. The search for intelligent design starts with speculative mythology and reaches its mature form through the justification of continuum of motion and change in the universe to reach an idea of *arche* figured out by ancient thinkers. The utmost characteristic of this period is the absence of a sacred text. Thus by this review we have the opportunity to see the pure forms of the argument from design in philosophers of Miletus, Plato and Aristotle. Their arguments are sometimes called cosmological and/or teleological. But what they have in common is that the argument from design originates from the intelligence of a superior creating power when is responsible for the harmony of nature. Additionally, this review presents us the stages of the arguments. I argue in this chapter that the basic concept of design is relevant to the conceptualization of the universe in various forms. To illustrate, in Thales the designing principle was an observable entity, like water, in Stoics this principle was considered as an immanent principle of perfection. The explanation of the designed universe based on different principles in

ancient thinkers transforms into a metaphysical conceptualization in Plato and Aristotle. In medieval philosophy, under the influence of Christianity and Islam this conceptualization plays a theological role, namely theological proof of God's existence. These theistic design arguments were followed by the simple analogies of British natural theologians against which Hume made his famous objection. It is a necessity to summarize this tradition of which Paley is a member. And Hume's objection to the problem is a representation of the methodological debate on the empiricism problem of argument from design. Secondly, a discussion about the explanatory power of design is also included. As the contemporary commentators of Paley's *Natural Theology* emphasize, the philosophical situation of the problem depends on whether the argument from design is a weak analogy based on Biblical concerns or it is an inference to the best explanation.

Chapter Three, is a presentation of *Natural Theology* of William Paley. In the analysis of his argument I prefer to divide and illustrate his argument into three sections: The watch and telescope analogies, the mechanical and immechanical parts and functions of animals and vegetables, and the personality of Deity. This categorization also reflects my general point of view on the argument of Paley. I argue that there should be a separation between Paley's philosophical, biological and theological arguments. Since this is a dissertation in philosophy, I focus on his philosophical remarks. However, it is not easy to understand Paley detached from his faith because the last chapters of his book are the result of Biblical outlook. For a critical evaluation of Paley's argument to design, I approach and analyze his *Natural Theology* not in the light of Biblical outlook.

In the last chapter, I reconsider Paley's argument to design in comparison to contemporary debates. Here, first I discuss the meaning of the term designed and I search for a basic definition. The question "what is to be designed?" has not been discussed in the literature in detail.

However, I think it is very important to shed light on the conceptual background of the argument. ID followers' discussion about naturalism is considered in the last chapter. Especially Michael Behe's and William Dembski's positions in this framework are comparatively discussed in order to point out how ID followers evaluate the argument from design as a bridge between science and theology using the Paleyan heritage.

CHAPTER 2

THE ARGUMENT FROM DESIGN

Design arguments are the arguments for the existence of God considering that God's existence is the best explanation of the universe. Even though the explanations of design arguments are assumed mainly to be based on a posteriori knowledge of nature for proving that universe is the result of a designer's handiwork it might not so simple to present an *empirical* argument for the existence of God as an explanation of the universe or as *evidence* for the existence of God in accordance with the naturalistic framework of science.

In the philosophy of religion design arguments which are the so-called *teleological arguments* are considered as a kind of theological proof.[5] However, if I consider whole conceptual background of the argument, it will not be true to call design arguments merely "teleological arguments"[6]. Hence design arguments emphasize the evidential characteristics of designer and a posteriori method; they involve modern concepts such as reason, experience, observation, evidence, etc…rather than classical theological concepts such as existence, creation, and divine attributes. Therefore there is a conceptual dissimilarity between the theological and philosophical perspectives about analyzing design arguments. In theological perspective design arguments do not date back to the cosmologies of the first philosophers since they are before the emergence of monotheistic religions. On the other hand, it is important to

[5] Clack, B., Clack B.R., *The Philosophy of Religion: A Critical Introduction*, Polity Press, Cornwall, 1998, p.25.

[6] "Teleological argument is concerned with the sense of a 'telos' in the world. It argues that the sense of purposeful design we see in nature suggests that the world has a designer." (Thompson, M., *Philosophy of Religion*, Hodder Ltd., London, 1997, p.102.) In this sense design arguments are considered as the arguments which emphasize the designed structure of universe in order to show that there is a designer.

mention the first samples of arguments before monotheism owing to fact that they give us foundations of the process of reasoning in design arguments and the outline of the methodological principles of their explanations. Theologically, design arguments must prove the existence of God as designer. Philosophically design arguments must explain that the observable natural phenomena imply there is a design in nature.

Thus, I argue that a philosophical evaluation of design arguments should involve a conceptual analysis of two fundamental terms: intelligence and design. The meaningfulness of design is based on a mutual relation between intelligence and design. For instance when early Greek philosophers presented the first samples of design arguments as cosmological explanations they attempted to clarify the designed features of nature such as perfectness, harmony, interaction, etc. These attributed qualifications of natural phenomena direct us to think about the intelligence of design because design was accepted more than regularity and/or order in terms of intelligence in that period. In other words, the term intelligence has underdetermined the definition of design since the first samples of design arguments.

I claim that, design arguments might not be categorized not only as a result of the diverse meanings of 'intelligence' and 'design' in theological and philosophical discourses but also this analysis requires a historical perspective to the problem by taking the birth of monotheistic religions into consideration. To illustrate, the term intelligence, before the monotheism, was considered as the perfectness of the universe by the Ancient philosophers. The monotheistic approaches to the design argument presented by medieval philosophers used the concept of intelligence as an attribute of Deity.[7] Their argument from design is in harmony with the sacred texts. The sacred pre-defined meaning of 'intelligence' determines the meaning of 'design'.

[7] Richmond, *Ibid*, p.3.

However, this way of determination leads to following difficulties: first, design arguments make an attempt to present an empirical argument for the existence of God which is transcendental. The tension between reason and faith is an old problem for philosophers. Design arguments claim to establish an explanation model for nature and a kind of proof for the existence of God as intelligent designer at the same time. Secondly, the religious understanding of God stated in sacred texts is dissimilar to the philosophical concept of God illustrated in the epistemological and ontological debates in the history of philosophy. The concept of God does not have an exact definition in design arguments. That can lead to a debate about the role of intelligent designer. And thirdly, keeping the naturalistic perspective of science in mind, the main statement of design arguments which is "God's exists as a designer" is not the *best* acceptable way for explaining natural phenomena. Furthermore, there remains a big question about whether design arguments explain natural phenomena in a proper way or serve theological benefits for finding a philosophically warranted place for God in nature. Thus, what is expected from design arguments is to solve the conflict between religious and naturalistic claims. In other words, according to the main concerns of design arguments, there should be a parallel justification between the agency of the designer and the attributes of God (described in sacred texts) which is a theological problem. In the limits of philosophy, taking these three factors into consideration Design arguments can be analyzed in terms of the following schema: *argument from design*, *argument to design* and *intelligent design*. Here, I think the key concept is intelligence not design.

In this classification, argument from design signifies a direction from the observable designed structure of nature to the existence of a designer. This version of the argument firstly tries to show that universe indicates a highly ordered and purposeful, designed course of action. The existence of God and his attributes are deduced from the appearances and evidences of designed universe. The classical versions of the design arguments are

produced by Greek cosmologies. I will analyze this type of argument in two sections: in Antiquity and in Medieval Philosophy. As opposed to Antiquity, philosophy has characteristics of theism in the medieval age. In Antiquity, the mythologies of Greek thought tries to explain nature, universe and gods. Contrary to this, Christian and Islamic philosophies try to reconcile philosophy and religion in the medieval time. Their design arguments are mostly concerned with the attributes of God. Making the attributes of God a subject of philosophy by some theologians resulted in the well known objections of David Hume and Immanuel Kant.

The argument to design emphasizes the concepts of purpose and beauty of nature. They see these attributes as the reflections of the wisdom of the Deity. The studies about Deity, so-called "natural theology", are the approaches of explaining nature in accordance with the essential nature of God.[8] Whereas in general this is very near to argument from design, in particular the direction of their arguments and the conceptual framework are different. Natural theologians, contrary to medieval philosophers, put their explanations a philosophical limit. According to their framework, the ontological character of Deity is no longer a question. The main problem in natural theology is to show design for the purpose of proving that God's existence with all his attributes is "empirically"[9] acceptable for everyone.

In general, the defenders of design arguments are not so much interested in philosophical analysis of meaning of 'design', rather they focus on the attributed values of design such as power or agency. In this

[8] McGrath, A.E., *The Order of Things: Explorations in Scientific Theology*, Blackwell, India, 2006, p.68.

[9] I think it should not be asserted that God is not a subject of metaphysics but an object of science. In any case, theism and empiricism can not be associated. Today some theologians examine general structures of the world which are considered as evidences for clarifying the attributes of God. Thus, Gibson summarizes this relation as follows: "…it is an argument *from* order *to* design *and* a designer …" (Gibson, A.B., *Theism and Empiricism*, SCM Press, Bloomsbury-London, 1970, pp.151-152.)

sense, I think both in argument from design and argument to design the key concept is the usage of *intelligence* not design. By the concept of intelligence I make this distinction because in both types of the argument design is used according to the same conceptualization: order and purposefulness. However, intelligence as the main attribute of the divine being refers to their different methodology. While in the argument from design the methods of philosophers concentrate on the general formation of universe, the followers of argument to design use particular samples in order to explain design.[10] The argument from design is a large-scale endeavor that tries to clarify the traces of design at cosmological level. The initial point of this type of design argument is the *perfect* harmony of the universe. On the other hand, the investigation of argument to design as the second type of design arguments concentrates on particular samples, namely organisms, organs, parts of plants and animals, etc. To illustrate, Plato does not consider the details of a plant, but he is heavily busy with showing the connection of Ideas and *Demiurge* on the samples of harmonious action of the universe. On the other hand, William Paley, as a natural theologian focuses mostly to show the traces of Deity in the very particular parts of living bodies such as vessels, bones, etc. The shift from intelligence to design is produced by Paley's *Natural Theology*. Thus, if intelligence of design is the consequence of the argument I call these design arguments the argument from design. And if intelligence of design is the premise of the argument then I call these design arguments the argument to design. For instance, Anaxagoras searched for a uniform and constructive principle of nature in order to show that the whole universe

[10] According to my distinction, explaining general formation of universe is based on the inductive cosmological explanations and including general statements for the processes of the universe. By means of these processes it justifies the intelligence of design. Also it emphasizes the attributes of intelligent Divine being such as truth, beauty and wisdom. On the other hand, explaining universe by concentrating on the particular samples of design mostly depends on teleological and deductive inferences. It justifies the designed structure in particular samples of nature and emphasizes the attributes of design such as contrivance, perfectness, complexity and function.

was sharing a unique structure. The outcome is akin to mythological explanations of Hesiod and organic principle of Thales: the continuum of the universe is consequently based on a governing intelligence. For Anaxagoras there should be an autonomous, cosmic and infinite intelligence. That was the first sample of argument from design. In this comparison, following Paley's methodology, intelligent design is a new type of design argument emphasizing that the concept of design deserves to be scientifically acceptable and should be philosophically adequate. They do not deal with the attributes of God, but they work hard to establish a creation science through promoting intelligent design as a competitor to Darwinian explanation of nature. Then the distinctive character of intelligent design arguments is their close relation to science and their consideration of scientific naturalism.[11] On the one hand, ID proponents return to the strategy in the classical version of the argument and try to produce philosophical notions for designer so that they avoid doing (natural) theology. On the other hand, they go one step further than Paley's argument to design and analyze very special examples of design in order to gain a philosophical and distinctive meaning to design. However, it does not show us that they ignore the intelligence of design. ID proponents depend on the concept of intelligence more than owners of AD since ID must show that the running natural process can not be explained without the presence of an intelligent agent as Darwinians argue.

I will analyze those three in separate chapters. Firstly, I present the analysis of the argument from design belong to the historical period from early Greek philosophers to the Humean criticism.

[11] The philosophical strategy of Neo-Paleyan Intelligent Design will be discussed in the last chapter of this dissertation.

2.1. Design Notion in Antiquity

The main attempt of first philosophers in philosophy and science is to discover and to clarify the mechanism of nature. They ask about the nature of things, the origin of nature. The basic claim of the Greek philosophy is the ontological principle of that "nothing comes out of nothing".[12] However, in monotheism we see the notion of one God who is the efficient cause of the universe as creator. According to monotheism God brought the world from nothing and he is the one who gave the world its present shape.[13] That means the monotheistic understanding of God presents God as the material and formal cause. Before monotheism, early Greek philosophers' cosmological explanations based on mythology can be considered as the initial forms of the design argument. The first samples of the argument from design belong to early Greek philosophers.[14] It is not unjust to say that the design argument of the early Greek philosophy is sourced from first cosmological explanations. The main focus of the period is to describe the basic pattern of nature and its processes in terms of existence, cause, change and movement.

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[12] Some commentators claim that the first Greek philosophers can also be considered as the first natural theologians who do not see *arche* and/or *nous* identical to being. Their explanations directed to find a physical solution to motion and the tension between being and nothing. (Gerson, L.P. *God and Greek Philosophy: Studies in the Early History of Natural Theology*, Routledge, London and New York, 1990, pp.228-229.)

[13] Ward, K. *The Concept of God*, Basil Blackwell, Oxford, 1974, p.131.

[14] Some authors of the philosophy of religion, such as James Richmond, John Hick, Beverley Clack, Paul Davies, do not take early Greek philosophy into consideration in their analyses. According to these commentators' explanations, the argument from design is not an argument without the monotheistic texts. Thus, from their point of view, the birth of Christianity is the reference point for the argument from design. However, I hold the idea that the argument from design is an argument as old as man's first attempts of natural explanations. The concept of divine and divine design is not necessarily connected to monotheism as Broadie notes: "Hence when certain Greeks began to think about the physical world in a philosophical way, they were concerning themselves with matters which it was still quite natural to term 'divine', even in the context of their new scientific approach. Because of this, it is not entirely obvious where one should draw the line between theology of the early Greek philosophers and their other achievements." (Broadie, S. "Rational Theology", *The Cambridge Companion to Early Greek Philosophy*, A.A.Long (ed.), Cambridge, 2006, p.205.)

Those philosophers accepted the principle that there is a design in the universe; that is why their explanations are called argument *from* design. According to their common interest, we live in a fine-tuned, perfect universe and that universe must be the product of an intelligence. Thus, design notion in Antiquity is far from proving the existence of one-God, but it concentrates on the intelligence of interactive natural processes. For the philosophers of the period, the intelligence of nature is noticeable as a governing principle. Their design argument should be considered naïve cosmological explanations that are in the form of argument from design. William Lane Craig analyzes this approach as the *cosmological* proof for the existence of God.[15] However, it is clear that early Greek cosmogonies are free from proofs of the existence of God in terms of our current conceptualization which is strictly based on monotheism.

Following this framework, the origins of the design notion are parts of cosmogonies in cosmological explanations of early mythologies until Plato's universe model and Aristotle's teleological point of view. The notion of design in Antiquity and the intelligence of design in their scope rather imply causality and the harmony of the components of the universe. Intelligence was considered as the unlimited power. Thus I agree with Gerson's remark that the argument from design in Antiquity was rather considered as cosmological and teleological arguments in order to support the existence of gods.[16] Relevantly, the philosophical outline of the period

[15] W.L.Craig's outline, as he notes in the preface of his book, is based on Copleston's historical survey on cosmological argument. I think theologically oriented approach of history of philosophy emphasizes the cosmological explanations as much as ontological. To illustrate, for Craig, the argument from design in Plato as a cosmological argument concludes a distinction "between cause and reason". (Craig, W.L. *The Cosmological Argument from Plato to Leibniz*, Macmillan, London and Basingstoke, 1980, p.x.) Therefore I think that the cosmogonies of the period were considered as cosmological *argument* from design until Plato's *Demiurge* and Aristotle's natural laws. That also supports my main claim that the concept of intelligence is the distinguishing feature of the process of argument. The argument from design explains causality by intelligence which is meaningful in terms of epistemic term "reason".

[16] Gerson, *Ibid.*, p.155.

leads us to find the pure form of the argument from design. As a result of the historical reality of the period, finding any references to sacred-texts is not available. The pure form of the argument of the period is under the influence of polytheistic and pantheistic mythologies. The understanding of metaphysics was concerned with finding a very foundational physical law, a first cause, or *arche*. Since initial forms of argument from design are under the influence of mythological aspects, they are far from being systematical explanations of existence. Initial forms of argument from design are partially inductive, imaginative, speculative and subjective. Even though some empirical deductions about the mechanism of the universe could be found in these explanations, we can not say that the pre-Aristotelian scope has a systematic understanding about those processes based on physical *law*s.

The arguments of the ancient thinkers were deduced from their metaphysical speculations. The main aspect of their speculations is the difficulty of understanding the nature of change, motion and matter-mind dualism. Despite the fact that the argument from design was not used by all thinkers of the era, some philosophers that are listed below directly or indirectly have a high opinion of the designed universe and they attempted to give reason for the existence of a designer by this argument. If we want to pass a general judgment on their argument from design, the earliest form of the argument from design is quite relevant to the comprehending order of the universe. The common point of these explanations is to question both the present forms of elements and the relation between being and nothingness. Greek cosmogony, as I mentioned earlier, is based on the assumption that nothing comes out of nothing.

To be brief, design argument is an argument from design in its earlier form which is generated in explanations of Hesiod, Philosophers of Miletus, Stoics, Plato and Aristotle. Many more names can be added to list. However, these philosophers who especially emphasize some key-concepts such as perfection, purpose, order and intellect mean to refer

'intelligence' of design in nature. I think these philosophers have mainly two different usages of the term intellect: material and divine. It is clear that the philosophers of the period were not concerned with the design rather they had great interest in the intelligent characteristic of designed nature. The term material intelligence here refers to a complete and perfect designing process of nature without the external agency of an intelligent designer. However, that does not say much about the status of the designer, i.e. as to whether he attends to the process or not. Unlike the monotheistic commentators of later eras, in this period there is no debate about the personality of God as creator because of the fact that ancients did not have a notion of creation. On the other hand divine intellect of Greek thinkers, as far as I am concerned, signifies the intelligent process of design by referring to the existence of an external owner of this intelligent plan, namely God. To illustrate, Hesiod considers "love" as the principle designing process of nature as a material intelligence of design. In Stoics' explanation, the argument from design is based on the divine aspects of *pneuma*. And they attribute *pneuma* as the divine intelligent designer. Contrary to their different positions, this is well-known that in their different explanations they emphasize the intelligence of design, not the design itself. Thus, it is not wrong to assume that the irreligious but mythological oriented argument from design designates a distinction on the nature of intelligence of design through the concepts of perfection, purpose and order.

Following this distinction I should also clarify the following points. First, they have an agreement on the idea that there is perfection in the universe. For instance, what Stoics understand from "perfection" is the appropriate functioning of the natural components and the well being of the objects. That is to say, the natural places of objects are their perfect location in the midst of the harmony of the universe. Secondly, some philosophers, e.g. Plato and Aristotle, underline the concept of purpose. And they think design is the fulfillment of purpose. According to their

framework purpose of nature is predetermined by the intelligent designer. The movement and change reflect and represent the intelligence of designer in nature. However there is an important distinction between Plato and Aristotle in terms of internal and external teleology. Internal teleology expresses an inherent tendency to achieve a certain goal without reference to the intentions of an external agent. On the other hand external teleology primarily accepts the existence of an external agent in order to explain movement and change. The teleological explanations of the period do not cover the agency of designer. The initial forms of design arguments in Antiquity supported the divine characteristics of the universe. Thirdly, some philosophers of the period define the abstract context of design with the concrete meaning of ordering/governing principle. The cause of the contradiction in this relation is the asymmetry which is resulted in the blurred usages of the meaning of design in accordance with the two main understandings of design as mentioned above, namely the material and divine intellect of design. In other words, although the designed structure of universe implies the necessity of a material or divine ordering principle, the governing principle in nature does not always imply the presence of a divine external agent in Greek cosmological explanations. According to their conceptualization the activity of designer is nothing more than well-governing. As a result, the earlier form of the argument from design does not have any monotheistic claim to prove existence of one God. It is rather an acceptance of a universe designed by intelligence. This intelligence can not be considered as a divine character. The followers of argument from design aim to see that intelligence as power. The power of intelligent designer is deduced from the observable process of ordered and fine-tuned nature. According to these thinkers design is a product of a governing principle and a guarantees the stability of the universe.

Since these philosophers see a tension between chaos and order. The stability of the universe has a crucial importance for them. Their explanations are cosmological respecting the explanations about

existence, change, movement, perfection and causality. Anaximender tried to conceptualize *aperion* as an abstract governing principle and endless, unlimited mass. Like Thales, Anaximander used general judgments to explain the structure of the universe. However, he did not follow the method of Thales which was strictly depended upon the search for *arche*. In his "vortex model" all spheres of the world move in a horizontal perfect order. Thus, he was influenced by this symmetry of Earth and considered this order as a cosmic architecture. This ordering principle, for Anaximander, should have been more than a basic and definitely detectible element like water. He says that "what underlines those changes must, then be distinct from and more fundamental than any of the basic but determinate stuffs of which the ordinary objects of the worlds are made."[17] Subsequently, Anaximander goes a step further than Thales and gives the first example of defining a principle of change as a natural law. The processes of nature and its changing qualities become adapted through an abstract principle. Anaximander is the first philosopher who also speculated on the origins of human species: "they must have originated from other animals -fish actually- since human infants require an extensive period of nurturing".[18]

As briefly illustrated above, the argument from design in early thought is a result of speculative judgments about nature. The general tendency of those philosophers is to explain natural phenomena by their quite individual observations on nature. And that is clear that whenever they are incapable of clarifying their singular experiments they apply mythological elements.

I propose the following statements for evaluating the structure of the first samples of argument from design presented in Antiquity:

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[17] Sedley, D., *Creationism and Its Critics in Antiquity*, University of California Press, Berkeley and Los Angeles, 2007, p.17.

[18] *Ibid.*, p.13.

i. The main contribution of this period is not to establish an argument from design as a theistic proof; rather they try to discover the nature and the origin of nature in principle. For instance, Stoics see the world as the work of an artificer.

ii. There is not any notion about creation from nothing. However, the notion of design is contributed as an explanation model for the structure of the universe. The cosmological explanations of pantheistic and polytheistic mythologies are used as the argument from design by the philosophers in terms of defining existence, cause, perfection, harmony, purpose, order, change and motion. The justification of the stability of universe is an illustration of this approach. The process from chaos to cosmos is a leading point in the argument from design in Antiquity. For instance, Hesiod considers “Love” as the ultimate principle of the stability of Earth.

iii. These philosophers are not monotheistic. Establishing a valid argument for the attributes of God is not main concern of them. Rather they try to explain the nature of nature through some superior qualifications. For instance the concepts of *nous, pneuma*, etc. are analyzed by these philosophers. These concepts are considered as the governing principles and intelligence of nature instead of some attributes like omnipotence, omniscience which belong to monotheism. Thus the animate power of nature, change, movement and interrelation between the parts of nature are all considered in relation to continuum of the universe, universal harmony, admirable beauty, a widespread goodness and governing reason.

iv. The intelligence of design is considered as the governing principle of nature. There are mainly two usages of intelligence in this period: material and divine. Until Stoics’ and Plato’s cosmogonies the material intellect was used to explain natural phenomena. The divine characteristic of the designer is understood in terms of beauty, harmony, goodness and wisdom. Stoics identify the intelligent role of fine substance, the pneuma with God, and they think the world is a work of a divine

artificer. The material intelligence of designing process is consequently considered as natural law. Even though Aristotle systematically establishes the scientific basis of natural laws in a materialistic framework, Anaximander's *aperion* and Anaxagoras' *nous* are the first examples of such abstractions.

v. The teleological character of design is questioned by these philosophers. The teleological explanations of nature are of two types: internal and external. An internal teleology describes an inherent tendency to achieve a certain goal without reference to the intentions of an external agent. Aristotle's view of purpose in nature is a good example of this teleology. In Aristotelian understanding nature is restricted by the organic structure. The existence of such an immanent structure of organisms is explained by their contributions to the organism's life. On the other hand, external teleology supposes the idea that there is an agent outside the world and arranges the material for its own purposes. The *Demiurge* of Plato and the Stoics' God are instances of this sort of teleology.

vi. In the classical version of design argument the intelligence as an attribute of the designer God is applicable to natural objects. Therefore the arguments of this period do not present a religious character but are mostly pantheistic. And there is no distinction between the intelligent designer and designed universe. For example, for Stoics, rationality is a mere source of the harmony of the universe and that superiority belongs to designer who is equal to the universe.

On the basis of these fundamental approaches of the period, I start to analyze the classical version of the argument from design in detail:

The cosmological explanations first appeared around 700 B.C. by Hesiod in Ancient Greece were the classical versions of design argument. In *Theogony*, Hesiod considered that there was Chaos and Love (*Eros)* at the beginning of the universe. However, Chaos was forced to leave its

place to order by Love which is the safe-seat of all gods.[19] In Hesiod's cosmogony, Love is the stability of the earth and its structure. Here, the relation between *Chaos* and *Love* is stated as the core ordering principle of all natural occurrences. They just do not order but also construct, unite and represent a perfection of natural order. Hesiod thought that there would be a creative/ordering force –like Love- that gives direction to the continuing processes of universe.[20] The stability of the earth and its perfect centrality are the signs of cosmic order. We see the mythological influence on the character of the cosmological explanations. And, here *creation* and *ordered nature* are considered as identical principles like the later versions that natural theologians used.

Their philosophical motive was essentially based on searching for the principle of change and order. This aim is one of the factors that lead to the argument from design as a teleological argument in Greek philosophy. Philosopher of Miletus did not accept cosmological explanations of former thinkers and presented an uncertainty to perception and observation. These philosophers attempted to explain the role of the power of elements in cosmic functioning. Denkel notes that their worldview was so materialistic that the observable and perceivable things -like dark and cold, etc.- were evaluated as beings.[21] Thales changed mythological character of Greek cosmogony through his exploration for the real nature of existence. Thales tried to understand *arche*. For him, everything comes from water, and the earth rests on water. As Hankinson commented, Thales "saw no sharp difference between the biosphere and the rest of the

[19] Hesiod, *Theogony and Works and Days*, D.Wender (trans.), Penguin Books, England, 1973, pp.116-117.

[20] Sedley, *Ibid.*, p.3.

[21] Denkel, A., *İlkçağda Doğa Felsefeleri*, Doruk, İstanbul, 2003, p.19.

universe."[22] Thales tried to establish his hypothesis that the whole universe was founded by water on the basis of observable phenomena.

In early Greek cosmological explanations, the world was considered inherently animate and full of gods. Until Anaxagoras, the early philosopher of this era did not emphasize the creating power of the designed universe. Anaxagoras is the first philosopher who emphasizes the "intelligence" of design in nature by his idea, *nous*. In his *Fragments* it can be easily seen that he has nearly the same usage with contemporary design arguments. He does not mean a distinction between animate and inanimate objects as his famous dictum tells more clearly: "In everything there is a portion of everything?" [23] So that, Anaxagoras' causal principle, *nous*, can be summarized as "intelligence" and "mind", and the great cosmic intelligence which created the world: "The other things share a portion of each, but intelligence is something infinite and autonomous, and is mixed with no thing, but it alone is by itself."[24] And "nous is not merely a cosmogonic cause, but also the same entity governing animate beings. And nous is present in beings, however intelligence is unmixed as being free of physical properties".[25] Apart from its divine aspects, Anaxagoras uses the term *nous* familiar to human intelligence. For him, *nous* is the basis and purpose of life; and it constructs "worlds primarily in order to generate human beings". [26] According to him, nature is a way of understanding of nous as "not merely the moving cause of universe, but as

[22] Hankinson, R.J. *Cause and Explanation in Ancient Greek Thought*, Oxford University Press, New York, 1998, p. 9-11.

[23] Sedley, *Ibid*, p.10 (fr.B11)

[24] *Ibid.*,(fr.B12)

[25] *Ibid.*(fr B11)

[26] *Ibid*, p.24.

the planning cause that creates worlds in order to proliferate intelligent beings like itself".[27]

Another decisive aspect of this era's argument from design is the stress on the intelligence of designer as artificer. Especially Stoics open a new dimension for the progress of the argument: the analogy between natural objects and artifacts. As Sedley says: "the Stoics' appeal to contemporary astronomical mechanisms makes their version of the Argument from Design even more powerful than Paley's watch."[28] What is the power of their argument? Stoics embraces Aristotelian natural hierarchy of functions: "Different animals do different things, and what they do uniquely or best is their proper and definitive function. It is their nature for them to act thus, and it is right them for to do so."[29] Accordingly, that means they do what is right for them. And 'right' means the appropriate function. However, The Stoic universe is a hierarchy of goods underwritten by divine providence. For instance, the cutting function of a knife is a part of the providential order of things.

For Stoics, the evident construction of the world shows that it is the work of a divine artificer. In order to explain the divinity, Stoics identify the intelligent role of fine substance, the *pneuma* with God. The *pneuma* is a containing cause of material objects as Cicero says:

> God is the world itself and the universal pervasiveness of its mind; also that he is the world's own governing faculty, since he is located in intellect and reason; that he is the nature of all things.[30]

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[27] *Ibid.*, p.25.

[28] *Ibid.*, p.207.

[29] Hankinson, *Ibid*, p.264.

[30] Cicero, *Nature of the Gods*, I.39: quoted in Hankinson, *Ibid*, p.262.

This tells us that this universe is the best possible world and intelligent *pneuma* makes its subscribers to a powerful form of directed teleology. Organic continuum is the principle of the Stoic version of the argument from design. Similar to Plato's *Demiurge*, the Stoic's *Craftsmen* has intelligence to unify the universe. The superiority of Craftsmen stems from exercising the portion of *pneuma* for pervading and unifying the universe: "So, if the earth is held together by nature and owes its vigor to nature, then the same rational force is present in the rest of the cosmos."[31] The *pneuma*, here is identified with the divine rationality as a material intellect such as gravity. Stoics reject immateriality of intellect which was raised by Plato: "Stoic pneuma is immanent, corporeal, and composite."[32] Stoics emphasizes that everything is ordered and intelligible, and therefore goal-directed and purposive.

Questioning the relation between art and nature is another feature of the design notion in Antiquity. For Cicero, nature is more perfect than art. Nature shows a purpose in its all components:

> If, therefore, the products of nature are better than those of the crafts and if the crafts do nothing without the use of reason, then nature cannot be held to be devoid of reason… the cosmos, which contains these very crafts and their craftsman and all else besides, is devoid of deliberative ability and reason.[33]

Stoics do not deny the rationality of the universe. The universe is rational but it does not lead to the idea that nothing greater can be imagined. We will see this kind of arguments (especially ontological arguments) in medieval philosophical theology. Stoic confidence in rational universe results in considering the parts of the universe as perfect as the

[31] Cicero, 2.83:quoted in Gerson, *Ibid*, p.158.

[32] *Ibid*, p.167.

[33] Cicero, *De Natura Deorum*: 2.87: quoted in Gerson, *Ibid*., p.157.

whole. For Stoics, order is everywhere according to organic continuum principle.

Stoics refrain from explaining rationality in a mechanical way. Stoics consider rationality "not as merely another name for order but as functional also, providing means to the goals of the continuation, preservation and beauty of the universe."[34] From their point of view, rationality can not only be a mere source of harmony of the universe. Rationality has some additional characteristics. It also attempts to perpetuate the existence and beauty of the universe in continuous sequence.

Stoic arguments for the existence of divinity contains a claim that the evidence found in the universe which indicates the existence of divinity also shows that this divinity is equal to the universe. In other words, the arguments of this era are not just cosmological arguments but also the first samples of natural theology regarding their claims. The evidence of Deity can be found in nature. It is apparent in the motions of things, and if there is a divination there are god(s). The universal intelligence shows itself in disciplined motion and direction of things. "The Stoic could demonstrate that the world was intellectual and then that this intellectual world was divine."[35] The complete and complicated harmony within the universe, for Stoics, indicates the comprehensive and eternal spirit of Designer.

The visible nature through this reasoning is evidence for the existence of divinity. In Stoic argumentation the harmony of the visible nature gives a proper explanation of the act of creating. The universe and the intelligence of God were considered as identical. According to their reasoning the every corner of nature is full of Deity.

In concluding these arguments of Hesiod, Philosopher of Miletus and Stoics, I may remark that, the inspections of these names are limited

[34] Gerson, *Ibid.*, pp.172-3.

[35] Buckley, M.J. *Motion and Motion's God*, Princeton Uni. Press, 1971, p.114.

by connecting the existence of an intelligent cause to nature. The conditions and the limitations of changes in nature, interaction between matters are the questions put by their argument from design. In short, the earlier form of the argument from design is not capable of being the best explanation for the all occurrences in nature but an underlying principle of order.

While philosophers of Miletus conceived one type of relation between God(s) and nature, Plato expands the meaning of God. According to Plato's cosmology the talent of God as intelligence is conceived by men. Plato explains the intelligence of nature using the concept of perfection. With Plato, the existence of God as the designing intellect became a *concept* of metaphysics. Plato maintained that if there is a design in universe this should have a divine character. Plato's contribution to the design argument is a good illustration of the stress on *intelligence* of design and supports the idea mentioned above that the term design is not merely sufficient to make the argument adequate to prove the agency of designer. We find his ideas on God specifically in dialogues *Timaeus* and *Epinomis*, and also in some parts of *Laws* and *Republic.*

At first, Plato's God is a Master Architect (*Demiurge*) who gives perfect patterns to the natural samples naturally, and imposes the purpose upon things as Designer.[36] However, the appropriate forms were present before God.[37] Plato's God modeled the world by eternal forms, which he found ready. To remember, Greek cosmogony does not have the idea of universe without beginning. According to the principle *ex nihilo nihil,* Plato's God orders the disorganized matters in agreement with a purpose. He works like a craftsman. Although we can copy what we see in nature, we are not able to make the things themselves as they truly are, we can just

[36] Ruse, M. *Darwin and Design, Does Evolution have a Purpose?* Harvard Uni. Press, Cambridge, 2003, p.17.

[37] Plato, *Republic*, [596a]. quoted from G.M.A. Grube, (trans) Hackett, Indianapolis, 1992, p.265.

imitate.[38] Here, cosmologically, Plato posits God as a primary cause; furthermore his God is a (teleological) determinant principle of the whole universe as the *Idea of Good*.[39] The universe is full of goodness and beauty because the examples used by God, namely Ideas consist of the best and the most beautiful. To consider another phase of this understanding we should note that there is not theism in Plato: The gods are responsible for natural laws and there is a real God above, the organizer, designer and owner of the Universe.[40] This God is the animate power of all bodies. In the *Epinomis* Plato states:

> To the man who pursues his studies in the proper way, all geometric constructions, all systems of numbers, all duly constituted melodic progressions, the single ordered schema of all celestial revolutions, should disclose themselves…[b]y the revelation of a single bond of natural interconnection. [41]

Plato calls *Demiurge* as "Master" in *Timaeus* (41a), "Father" in *State* (530b) and "Captain" in *Letters.* What these attributes have in common is that they all signify an authorized administrator: "If there were no captain on a ship, there would be no meaning of a ship."[42] Plato's God does not have only a theoretical function but also have an actual role working in the mechanism of nature.

Plato is against atheism. He does not accept universe without the existence of God.[43] His argument is based on the permanent change in

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[38] *Ibid,* p.266. [596e].

[39] Plato, *Timaeus*, [29a] quoted from Cornford, F.M., *Plato's Cosmology: The Timaeus of Plato*, Routledge, New York and London, 2000, p.23.

[40] Plato, *Laws*, [903b] quoted from T.L. Pangle (trans.) *The Laws of Plato*, University of Chicago Press, New York, 1998, p.302.

[41] Plato, *Epinomis*, [983.a-b] quoted from Nasr, S. H., *Religion and the Order of Nature*, Oxford Uni.Press, 1996, p.84.

[42] Plato, *Republic*, [341d-342d], *Ibid*, pp.17-19.

[43] See: Plato, *Laws*, X. 890, 907 and 990.

Earth and the source of movement. For Plato, the soul is capable of motion and moving itself, it is the self-generating motion.[44] Additionally, everything in the universe has a cause. In *Timaeus* 28b, he said that the whole universe and world order was given in a context. The first and ground cause is the God himself: "The God first gave order to all things and then out of them he proceeded to construct this universe".[45] And indeed, for Plato it is easy to show that there is God and He is the sufficient reason (*telos*) of all beings, when we look at the order of nature, as he says in *Laws* 886a:

> Just look at the earth and the sun and the stars and the universe in general; look at the wonderful procession of the seasons and its articulation into years and months! [46]

This order can not be a result of a random process. Moreover, secondly, for Plato,

> …our universe is the most beautiful, and of causes the craftsman is the most excellent. This, then, is how it has come to be: it is a work of craft, modeled after that which is changeless and is grasped by a rational account, that is, by wisdom.[47]

Thirdly, providence argument for God's existence was used by Plato. This is an outcome of his Socratic philosophy. The goods are served to people and beings in general and that shows the existence of the best perfect Being: "He is the most perfect and excellent among things come to

[44] Plato, *Laws*, [896a]. *Ibid*, p.294.

[45] Plato, *Timaeus*, [69b-c], *Ibid*, pp.199-200.

[46] Plato, *Laws*, 888e, *Ibid*, p.285.

[47] Plato, *Timaeus* [29a], Ibid, p.23.

be… Self-sufficient, most-perfect god… he gave fair design to all that comes to be."[48]

Above all, Plato obviously declared that there is a perfect, intelligent God as designer in *Epinomis* 983b:

> I declare that God is the cause and that it could never be otherwise. For nothing could ever come to be alive except through God, as we have shown. And since God is capable of this, it is perfectly easy for him first to make any body and any mass of material into a living being and then make it move however he thinks best.

Plato considers intelligence as the primary cause of nature. He says this nature is full of intelligence.[49] Intellect and necessity give birth to natural order:

> Intellect prevailed over Necessity by persuading it to direct most of the things that come to be toward what it is best, and the result of this subjugation of Necessity to wise persuasion was the initial formation of this universe.[50]

Here we understand this intellect is divine and human-beings can not comprehend or partake it. Our reason can understand only necessity. But God is capable of distinguishing causes of beings since He is the perfect intellect.[51]

Plato tries to reconcile the material and divine intellect in the figure of *Demiurge*. However, intelligence of design is emphasized as the divine characteristic of God. Aristotle is the one who returned the idea of material intellect explaining the order of nature. Aristotle had in mind like the model of Plato, model of a craftsman. But the difference is between Plato's and

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[48] *Ibid.*, [68e], p.279.

[49] *Ibid.*, [46c], p.157.

[50] *Ibid.*, [48a], p.177.

[51] *Ibid.*, [69a], p.279.

Aristotle's model regarding the concept of *purpose.* According to Michael Ruse, "whereas Plato saw a purpose in the whole universe, Aristotle worked at the individual, physical level".[52] And Ruse also notes that in Plato's cosmology purpose is external but in Aristotle's nature it is internal.[53] While Plato's designer is transcendental and has a divine character, Aristotle's Prime Mover is purely immanent and plays an internal role in the mechanism of nature.

In order to understand Aristotle's God, we should turn to his books *Physics (book 2),* and *Metaphysics (Lambda10)*. Here Sedley suggests considering his teleological argument for the existence of God in three steps[54] that I see relevant to the present investigation: First, in his craft analogy, Aristotle defends that the thesis that the world continued functioning does not necessarily imply a divine planning or enforcement. Beside this, like Plato and unlike the atomists he holds that there are *irreducibly purposive structures* in nature. This teleological approach says that you can not avoid thinking that the heart is for pumping blood, the teeth for cutting and grinding food.[55] Here Aristotle sees an analogy between crafts and natural things and defines intelligent act as an act for the sake of an end; therefore the nature of things also work out like crafts:

> Thus if a house, e.g. had been a thing made by nature, it would have been made in the same way as it is now by art; and if things made by nature were made also by art, they would come to be in the same way as by nature. Each step then in the series is for the sake of the next; and generally art partly completes what nature cannot bring to a finish, and partly imitates her.[56]

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[52] *Ibid.*, p.18.

[53] Ruse, *Ibid*.

[54] Sedley, *Ibid*, pp.167-204.

[55] Sedley, *Ibid*, p.168.

[56] Aristotle, *Physics*, Book2, [199a15-20]. quoted from Waterlow S. *Nature, Change and Agency in Aristotle's Physics: A Philosophical Study*, Oxford Uni. Press, 1998, p.51.

The difference between craft and nature brings up the second point that in crafts the moving cause is regularly external to matter. This analogy raises the critical question: Is god being detached from the natural world? Aristotle's natural world is not one in which intelligent purpose dominates as in Plato's thought. Natural purpose involves conditional necessity which reflects an intelligent purpose. Aristotle's final cause means the well-being of the individual organism.

Finally, the differences of necessity and chance in natural events construct the role of purpose in Aristotelian causality and the role of God as Prime Mover. We know that the concept of potentiality is central to Aristotle's metaphysics. Whereas the pile of wood has the potentiality of being a table in a carpenter's hand, that potentiality is passive in nature. The materials are necessary for the building but they do not necessitate construction in themselves. This reasoning brings us to the Prime Mover. Perfection and intelligibility go hand in hand for Aristotle: "The Prime Mover, itself motionless, is a cause of motion, it is the object of desire… [However] by serving as the ultimate cosmic exemplar, it gives structure and intelligibility to the world as a whole: it is what makes the Aristotelian world united."[57] As a matter of fact, Aristotle's distinction of matter and form unites in movement. Nothing can arise from matter and form without the necessary motion which should come from the Prime Mover. Thus Prime Mover is the mechanism of nature and owner of its internal teleology. The teleology of Aristotle is a good example of the usage of the argument from design. The immanent character of the Prime Mover is considered as the teleological mechanism, as a governor in Aristotelian approach. Prime Mover is a part of cosmological order. Unlike Plato's *Demiurge*, Aristotle's Prime Mover does not have a transcendental divine character. However, Lindberg comments that by a living and totally actual

[57] Hankinson, *Ibid*, pp.187-188.

deity Aristotle expands the area of divine from ordinary objects to scientific inquiry.[58]

To conclude, early Greek philosophers, Stoics, Plato and Aristotle, and the other leading names of the argument from design of the period share the conclusion that understanding nature equals to understand the nature of gods. The pre-Christian philosophers' explanations and abstractions are limited with the constructing arguments for the sake of understanding the nature of phenomena. They do not deal with a deeper concept of existence. That detailed investigation of the sphere of existence is done by medieval philosophers regarding the guidance of the sacred texts. By the birth of monotheistic religions, argument from design functions as a type of *proof* for the existence of God. However, the religious-oriented philosophers consider God and his words declared in sacred texts as the basis of all existence.

2.2. The Religious-Oriented Argument from Design: The Medieval Period

In the medieval times, the classical version of the design argument had monotheistic feature regarding scriptural roots. As all monotheistic sacred-texts celebrate the glory of a powerful and Divine being as the creator and the sublime symbol of designing intelligence above nature and humankind, Christian philosophers and theologians tried to find the evidence of the divine design in the world which *Psalm 19:1* of the Old Testament states as follows: "The heavens declare the glory of God; and the firmament proclaims his handiwork."[59]

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[58] Lindberg, David C., *The Beginnings of Western Science*, Second Edition, University of Chicago Press, Chicago, 2007, pp.50-51.

[59] Carroll R., Prickett S., *The Bible (Authorized King James Version With Apocrypha)*, Oxford University Press, Oxford, 1998, p. 649. McGrath tells us that means for Christians, to experience the beauty of creation points to the glory of God, and that is why it deserved to be investigated. (McGrath, *Ibid*., pp.50-51.)

St.Augustine (354-430) stated that order encompassed everything. According to him, there is no serial of causes without order; and "order within things and between them… binds and directs this world."[60] In Augustine's thought, order is the government of all things and order is put in place by God.[61] Augustine's argument is an argument from order. Augustine uses the word 'order' by means of 'form' of nature that designates and describes existence. Therefore, for Augustine, order is an ontological category. Order does not just refer to appearance but to all existence and being.[62]

The Thomistic version of the argument has been one of the main focal points for the philosophical disputes on the subject. Our main concern here is not the details of how St. Thomas Aquinas (1225/1227-1274) should be interpreted, but understanding especially his argument from design that is noted by him clearly in the fifth way of his *Summa Theologica*. Many commentators agree that Thomistic approach to philosophy brings the first philosophical outlook in natural theology regarding the functional relation between sense, reason and Divinity.[63]

For Aquinas, philosophy follows a path from phenomena to God in its scientific activity, but, theology starts from the existence of God and then examines the phenomena.[64] Faith is not the object of rationality but rationality has ability to reply the objections. In Aquinas' reasoning, there is

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[60] St.Augustine, *On Order (De Ordine*), Trans. Silvano Borruso, St.Augustine's Press, South Bend, Indiana, 2007, p.3.

[61] *Ibid*., p.37.

[62] Harrison, C. *Rethinking Augustine's Early Theology: An Argument from Continuity*, Oxford University Press, Oxford, 2006, pp.100-101.

[63] Martin,C., *The Philosophy of Thomas Aquinas*, Routlegde: London and New York, 1988, pp.103-104. and Brown, S.F., *Thomas Aquinas on Faith and Reason*, Hackett Publishing: Indianapolis and Cambridge, 1943, pp.114-115. And Dönmez, S. *Aziz Thomas'ta Felsefe-Teoloji İlişkisi*, Karahan Kitabevi, Ankara, 2004, pp.95-111.

[64] Thilly F., *Yunan ve Ortaçağ Felsefesi*, Trans.İ.Şener, İzdüşüm Yayınları, İstanbul, 2002, p.326.

nothing irrational in revelation. Therefore, he says there can not be proofs for the creating activity of God, but we know its truth through revelation. The concepts of faith can be subject of philosophical investigation which is composed of the works of utmost wisdom.[65] Aquinas also holds that "something can be known of God even by the natural light of human reason, unaided by grace, by analogy with what is known of the world and its constitution."[66] However, for Aquinas, God's revelation makes truths of a different order known by the truths disclosed by pure reason. The former is known by faith ("not because we see them to be evidently or demonstrably true" [67]) and the latter by virtue of their intrinsic reasonable evidence. In this respect Aquinas broadens the definition of reason in accordance with natural theology.

Aquinas understood creation in terms of the principle of origin because of the fact that "like other medieval theologians Aquinas believed in creation *ex nihilo*."[68] To remember, at the first part of this chapter, I emphasize the cosmological and ontological distinction between Greek philosophers and medieval theologians in terms of creation. Keeping the Aristotelian principles in mind we realize that Aquinas extended their meaning in his five arguments for the existence of God found in *Summa Theologica*. Within a Christian vision, Aquinas considered the explanation of the changes that occur among existing beings incomplete and tried to explain their very existence. Existence is a fundamental category in every case for Aquinas. Aquinas tried to apply Aristotle's theory of act and potency to particular types and changes of created beings. To understand

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[65] Charlesworth M. *Philosophy and Religion From Plato to Postmodernism*, Oxford, Glasgow, 2002, p.63.

[66] Martin, *Ibid*., p.99.

[67] Charlesworth, *Ibid*, p.64.

[68] Hacınebioğlu, I.L., *Does God Exist? Logical Foundation of the Cosmological Argument*, İstanbul: İnsan Publications, 2008, p.105.

his doctrine we should keep Aristotle in mind. Hence, for Aristotle the fundamental principles are *act* and *potency*. They are, for Aristotle, the principles of change. As Martin notes, Aquinas' proofs of the existence of God have nothing to do with a claim that some time the chain of causes in this world had a start. The world is something that God is doing, rather than something that God has made.[69]

With this extended –creationist- application of the argument he begins by saying that it is clear from sense-experience that some things in the world are moved. Here, it must be remembered that "Aquinas, like Aristotle, understands the term 'motion' in the broad sense of change, reduction from a state of potentiality to one of act; he does not refer exclusively to a local motion."[70] This first way is the argument from motion. For Aquinas nothing can be both actuality and potentiality in the same respect. Therefore nothing can move itself and each thing in motion need a mover. This mover is the first mover because the motion is infinite and only God can be the cause of it. The second way is about the argument of efficient causes. If nothing exists prior to itself than nothing is the efficient cause of itself. The series of efficient causes can not be infinite and we must accept a first efficient cause, namely God. The third way of Aquinas is the argument to possibility and necessity. Aquinas says not every being is a contingent being. Therefore some being exists of its own necessity, and does not receive its existence from another being, but rather causes them. The fourth way is about the graduation of being. There is a hierarchy among beings from simpler ones to the perfects. The perfection is God.

Finally the fifth way is the argument from design and we will say more about his last argument: The fifth way is about the order of the world. Through our senses we may experience that existing things act for an end. This is evident from their acting according to some definite pattern in order

[69] Martin, *Ibid*, p.104.

[70] Copleston, F.C., "Comments on St Thomas' Five Ways", *The Rationality of Belief in God*, George I. Maurodes (ed.), Prentice Hall, New Jersey, 1970, p.49.

to obtain the best result. They achieve designedly according to their end. Very different types of materials cooperate in such a way as to produce and maintain stable world order or system. For Aquinas, this purposefulness is a result of intelligence because we also know that whatever lacks intelligence can not move towards an end as the arrow is shot to its mark by the archer.[71] Therefore some intelligent being exists by whom all natural things are directed to their end; and this being we call God.

Armstrong who has detailed works on the history of the concept of God, especially appreciates the fifth way of the Thomistic proof because according to his evaluation the other (four) ways resulted in reduction of God to the images that we had about Him. And these images are still being used by the Christians. However, for Armstrong the proofs from causality, finiteness, necessity and gradualism exclude God from Being.[72]

Aquinas, in five ways, presents that the existence of God is a fundamental truth. It is not an article of Christian faith nor self-evident. This is rather a conclusion gained by arguments:

> The existence of God and other like truths about God, which can be known by natural reason, are not articles of faith, but are preambles to the articles; for faith presupposes natural knowledge, even as grace presupposes nature and perfection the perfectible. Nevertheless, there is nothing to prevent a man, who cannot grasp a proof, from accepting, as a matter of faith, something which in itself is capable of being scientifically known and demonstrated.[73]

Demonstration is an acceptable method in Aquinas' proofs. He says "…because we do not know the essence of God, the proposition is not self-

[71] Kreeft, P., *A Summa of the Summa*, Ignatius, Florence, 1990, p.69.

[72] Armstrong K., (1998), *Tanrı'nın Tarihi*, (trans) O.Özel, H.Koyukan,K.Emiroğlu, Ayraç, Ankara, pp.267-268.

[73] St.Thomas Aquinas, *Summa Theologica of St. Thomas Aquinas*, BiblioBazaar, LLC, (1274:2009), [q.2 a.2. Reply obj.], p.59.

evident to us, but needs to be demonstrated by things that are more known to us, though less known in their nature-namely, by His effects."[74]

Relevant to our focus on intelligence and design concepts in Aquinas' proofs, Copleston suggests understanding fifth way (the argument from design) not through empiricism but by the help of the idea of implication in which Aquinas speaks of demonstration and proof: "And by demonstration he means in this context… the affirmation of some empirical facts for example that there are things which change, to the affirmation of a transcendental cause."[75] The major theme of the Aquinas' argument is its empirical ground.[76] Here, I think, the Aquinas' conception of *natural reason* is connected to the empirical ground of his argument. For Aquinas, natural reason is not capable of identifying God ultimately but makes reaching some conclusions about divine truths or the possible conditions of such knowledge available.[77]

Overall, we understand that there is a difference between the ancient Greek philosophers and Christian medieval philosophers on the relation of God and Beings. For Aquinas natural reason of man is a received capacity given by God. Similar to the origin of reason, the existence and causality of entities surrounding man and becoming the object of his experience received causality from God. That means, beings are not real beings they have rather *seminal* values and put into nature by God. This explanation is based on the Aristotelian tradition which explains that the secondary causes are not the real causes but make material ready

[74] Aquinas, *Ibid*, [q.2, a.1, 3 Reply obj.], p.56.

[75] Copleston, *Ibid*. p.51. Aquinas evaluates "causality" different from Augustine and Aristotle. In a Christian and created universe existing things can not be considered as real beings. These are the reflections of seminal virtues of the Deity. The illuminated knowledge sources from the light of God.

[76] Brown, *Ibid*., p.118.

[77] *Quaestiones Disputatae De Veritate*, q.8, a.3. quoted in Aquinas T., *Selected Philosophical Writings*, Timothy McDermott (ed.), Oxford University Press, 1998, pp.198-199.

to accept forms' potency of material. Thus inanimate objects do not make any sense in demonstrating God's intelligence. "The vilification of natural entities by the Christian philosophers was a fault."[78] For Greek philosophers things behave in order to reach their authenticity which constitutes their potency; whereas for Christian philosophers of medieval time things try to reach their fullness which is given by God.[79]

Now, when Aquinas talks about operating of the universe for an end in this connection, he means the cooperation of different kinds of material things (consciously/unconsciously) in a view of purpose. He obviously finds the heterogonous parts of material things pointing to the existence of an extrinsic intelligent-designer author. Armstrong said this proof pictured out the most successful image of God for believers.[80] And this image of God will open the new way of understanding God by reason in theology and philosophy. Debates on accepting the intelligence of universe and God as designer may support Copleston's comment on Aquinas' argument from design: "If Aquinas had lived in the days of the evolutionary hypothesis, he would doubtless have argued that this hypothesis supports rather than invalidates the conclusion of the argument."[81]

Summa Theologica of St. Thomas is the first attempt for *demonstration* of God's existence in an argumentative way. The systematic examination of the proofs of the existence of God raises the question whether or not the demonstration of God's existence is possible.

Before going into the details of British Christian form of natural theology I think it is better to give an example from the Islamic design arguments. In Islamic thought, the existence of God was given directly in

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[78] Gilson E., *Ortaçağ Felsefesinin Ruhu*, Trans: Ş.Öçal, Açılım, İstanbul, 2003, p.181.

[79] Gilson, *Ibid*, p.179.

[80] Armstrong, *Ibid.*

[81] Copleston, *Ibid*, p.60.

Koran[82] and there is no need for any demonstration of the Divine being. However, many Muslim philosophers produced different versions of the argument from design. Aydın thinks that Islamic philosophers' intensive interest in associating and considering order, purpose and justice with their ontology leads to the fact that they do not really raise design arguments comparable to the Christian Natural Theology.[83] Since this work is limited to Christian Natural Theology tradition, I think two illustrations of Islamic tradition can be sufficient regarding the framework of this study.

Al-Baqilani (d.1013) is one of the philosophers who used argument from design in order to rationalize that God exists as a designing intelligent Divine power. He clearly defines the inevitability of an Intelligent Designer as follows: "…necessity have a Maker or Fashioner just as writing must have a writer, a picture a painter and a building a builder."[84]

The occurrence of purpose and order in the natural world, in pagan, Muslim and Christian traditions, provides a ground for arguing the existence of an intelligent and powerful designer-God from the world. The shared concern of Muslim philosophers was not just to prove God's existence from the appearances of nature. Thus, we can not say that they could give complete and perfect version of the argument from design rather

[82] Koran 31:20 asks "Do you not see that Allah has made what is in the heavens and what is in the earth subservient to you, and made complete to you His favors both apparent and unapparent?" And in 2:164 also says "Behold! in the creation of the heavens and the earth; in the alternation of the night and the day; in the sailing of the ships through the ocean for the profit of mankind; in the rain which Allah Sends down from the skies, and the life which He gives therewith to an earth that is dead; in the beasts of all kinds that He scatters through the earth; in the change of the winds, and the clouds which they trail like their slaves between the sky and the earth;- (Here) indeed are Signs for a people that are wise." These words of Quran are commented by Muhammed Esed as follows: "While these verses do not specifically indicate which properties of features of the world are evidence[s] of God's intelligent nature, each presupposes the world is evidence of God's intelligent nature, each presupposes that the world exhibits such a feature that they are readily discernable to a reasonable conscientious agent." (http://www.theholyquran.org)

[83] Aydın, M. S., *Din Felsefesi*, İzmir İlahiyat Fakültesi, İzmir, 1999, p.69.

[84] Fakhry, M., *Philosophy, Dogma and the Impact of Greek Thought in Islam,* quoted from Al-Baquillani's *Tamhid*, Variorum, Great Yarmouth,1994, p.139.

they try to explain approval of the attributes of God.

Al-Kindi (Alkindus) is another major Muslim philosopher who used the argument from design in the ninth century. He points out that the wonderful phenomena of nature can not be without an agent. And this agent should be the agents of agents. For al-Kindi the orderly and harmonious workings of the universe represents an intelligent administrator:

> The majestic structure of the universe, its regularity, the harmonious interaction of parts, the admirable way some parts submit themselves to the guidance of other parts, the perfect arrangement so that the best is always preserved and the worst is always destroyed, is the best indication of the existence of a most intelligent administration, and consequently of a most intelligent administrator.[85]

The religious-oriented argument from design signifies the scriptural explanation of nature by the medieval philosophers. Their main concern is to establish a bridge between faith and reason through the natural phenomena. In medieval time the missions of philosophy and theology becomes identical: the divine order of nature meets the causal determinism. By this, the religious oriented argument from design makes a room for creation and emphasizes the attributes of God, in contrast to Greek cosmological and teleological explanations. While in mythologies of Greeks the shift from chaos to cosmos means the natural order, in arguments of monotheistic philosophers design is used to justify the attributes of God and celebrate the creation activity. Thus, religious oriented argument from design goes back to transcendental natural theology rather than being an immanent natural theology. The religious philosophers emphasize the theistic structure of argument from design.

[85] Atiyeh, G.N.,*Al-Kindi*, Islamic Research Institute, Ravalpindi, 1966, pp.61-62. Al-Kindi's *dâlil al-inayah* is a teleological argument shortly introduces an understanding which is based on the idea that the orderly and wonderful phenomena of nature could not be purposeless and accidental.

This comparison is the subject of David Hume's objection made in eighteenth century. Even though the argument from design is motivated by the influence of theism, it does not serve the God of monotheism. It rather justifies the God of deism due to fact that natural theology is defined as the effort in reaching the knowledge or existence of creator just staying within the boundaries of reason and the observation of natural phenomena. Following this reasoning, Hume analyzes the general structure of the argument from design and demonstrates us that argument from design is not a kind of proof for the existence of God. His objection leads to reformulation of natural theology as argument to design by British theologians.

1.3.Hume's Objection

David Hume's (1711-1776) main work in the philosophy of religion, *Dialogues Concerning Natural Religion* (published after Hume's death in 1779) is "commonly held to have destroyed natural theology"[86], so-called argument from design which assumes that the existence of God can be inferred from the existence of the world.

The chief assumption of Hume's philosophical thinking on religion and his arguments for the existence of God are based on *evidentialism* [87] which means that religious belief can be rational if and only if there is sufficient supporting evidence. The design argument for the existence of a deity is examined as the principal theistic supporting argument in his *Dialogues*. The question of whether the religious belief belongs to reason or experience is the subject of Hume's *scepticism*. The final position of him is quite relevant to a weak form of deism because he argues that even

[86] Mounce, H.O., *Hume's Naturalism*, Routledge, London, 1999, p.99.

[87] The evidentalist view is that "a belief is rationally acceptable only if there is sufficient evidence for it and [i]t is wrong always, everywhere and for any one, to believe anything upon insufficient evidence." (Sweet, W., "Paley, Whately, and Enlightenment Evidentialism", *International Journal for Philosophy of Religion*, 45, 1999, p.144.)

when we accept a supernatural source for nature there is no sufficient reason to think that such a being is all good. Moreover, as Dicker notes, the scepticism of Hume relies on the claim that the knowledge of the physical universe is either false or unjustified.[88] Although Hume says providing evidences for our beliefs can not have an end, that does mean to abandon our beliefs. Rather, Hume accepted such beliefs as instinctual which means they belong to our nature. The nature of mankind as a consequence is a part of animal nature in the world.[89] In another words, I think Hume supports the claim that, like animals, we, human beings *instinctively* hold beliefs. As O'Connor claims, there are two meanings of belief in Hume: "concerning its foundation in reason and concerning its origin in human nature."[90] This framework of such basic beliefs marks the limits of evidence. For Hume the critical point is this: "after the analysis of natural order not faith but reason remains."[91]

It is not fair to call Hume an *agnostic* because he accepts a –limited- form of *deism*.[92] Hume's criticism directed at religion is in accordance with

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[88] Dicker, G. *Hume's Epistemology and Metaphysics: An Introduction*, Routledge: London and New York, 1998, p.7.

[89] These questions are widely discussed in Hume's *The Natural History of Religion* (1757). As Hume says at the very first sentence of his book, in "author's note": "As every inquiry, which regards religion is of the utmost importance, there are two questions in particular which challenge our attention, to wit, that concerning its foundation in reason, and that concerning its origin in human nature." (Hume, D. *The Natural History of Religion*, H.E.Root (ed), Stanford Uni.Press, California, 1956, p.21.)

[90] O'Connor H., "A Brief View of Hume's Theory of Religion", *Hume on Natural Religion*, S.Tweyman (ed.), Thoemmes Press, Bristol, 1996, p.252.

[91] O'Connor, D. *Hume on Religion*, Routledge, London, 2001, p.18.

[92] Reich's comment supports the claim that Hume is not against the existence of God: "A deistic conception of God is one in which god created the laws of nature and then let the universe run along without interference according to those laws. So deism is a possibility for Hume." (Reich, L., *Hume's Religious Naturalism,* University Press of America, Lanham, 1998, p.33.) It is not so easy to name Hume as a deist in terms of classical terminology. Timothy S. Yoder insists that Hume is not an English deist on the question of beliefs about God. According to Yoder's comment, English deists concentrates on exposing theological errors to defend orthodox faith. However, Hume's restricted desm is about establishing an intellectual position.(Timothy S. Yoder, *Hume on God: Irony, Deism, and Genuine Theism*, Continuum, London, 2008, pp.70-76)

his epistemology and proper limits of human understanding.[93] As Noxon argues "Hume's doctrine…is a psychological theory designed to explain how men in an epistemological state of nature do in fact acquire their ordinary beliefs about the world."[94] For Mounce, the *relation of ideas* and the *matters of fact* is the result of the relation between reason and religious belief in Christianity which is mostly developed by Calvin, and Hume is related to that view.[95] Calvinist theology holds that

> …[t]he existence of God is evident in his works. By the light of natural reasons…we may know him from the existence of the world that God exists. But this is a knowledge of a God who is transcendent…God in his own nature is unknown, we are liable to construe him according to our ideas…[96]

"The natural light of reason" is not applicable in Hume's epistemology. Hume was not Christian, nor Calvinist, but he can be considered as a deist. A deist may be likened to Calvin's view without faith. Cleanthes in the *Dialogues* is a good illustration of Humean tendency. Cleanthes denies that God is infinite and considers him as one of empirical objects but differs from human beings in degree but not in kind. Cleanthes' way is not compatible with the Catholic view of Christianity. Denying the role of belief does not mean that Hume's position is akin to the natural theologians' explanations which express that religious beliefs are rationally acceptable. The Reformed theology of Calvin and Catholic way of Aquinas

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[93] See: Dicker, *Ibid*, pp.154-195.

[94] Noxon, J. "Hume's Concern with Religion", in *David Hume: Critical Assessments*, Vol.5: Religion, (ed) S. Tweyman, Routledge: London and New York, 1995, p.7.

[95] Mounce, *Ibid*.

[96] *Ibid*, pp.99-100. According to Sudduth's comment, for Calvin the *sense of divinity* as a theistic belief forming mechanism function as an experimental basis of beliefs. Calvin is not saying that "there are experiential indications of God on the basis of which people, but that people believe in God having taken into account (entertaining the belief) that these things presented to them in sensory experience are in fact indications of God's existence." (Sudduth, M.L.C., "The Prospects for Mediate Natural Theology in John Calvin", *Religious Studies*, 31, 1995, p.60).

are not acceptable by Hume in terms that Aquinas explicitly denies that faith requires support of reason. Therefore, Hume's position in the debate of the role of reason as to whether faith is a subject of reason can not be categorized under any theological views of his period. In order to understand Hume's objection to the argument from design John Locke (1632-1704) should be revisited because Anglo-Saxon circle of natural theology is under the influence of Locke. Locke does not argue that a divine revelation can be established by argument or reason.[97] According to Locke's empiricism, we can accept what revelation said without any proof because every belief must be supported by reason in the sense of some further belief which justifies it. Hume defines Locke's position in the philosophy of religion in his *Dialogues* as follows,

> Locke seems to have been the first Christian, who ventured openly to assert, that faith was nothing but a species of reason, that religion was only a branch of philosophy, and that a chain of arguments, similar to which established any truth in morals, politics, or physics, was always employed in discovering all the principles of theology, natural and revealed.[98]

For Locke, some belief must be accepted in its own right. However, the influence of Locke in Christianity is followed by many attempts to give it a rational ground. And, for Mounce, "the most famous of these being found in the works of William Paley".[99] Mounce then comes to the conclusion that the new rationalism on religion in the last decades of eighteenth century declares that you *can* prove what you believe. I disagree with Mounce because for Paley and for many British natural theologians human reason is limited to understand God and His nature, but capable of experiencing the traces of Deity. Natural theologians follow hold that sense experience is

[97] Richmond, *Ibid.*, p.22.

[98] Hume D., *Dialogues Concerning Natural Religion*, N.K.Smith (ed) The Bobs-Merrill Co., Indianapolis, 1947, p.138.

[99] Mounce, *Ibid.*,104.

an appropriate way for justification of beliefs.[100] In this sense it is not true to say that natural theologians can be called empiricist just owing to the role of sense experience. They rather try to neutralize theology. They prove the God's existence by indicating an intelligent order in nature. Thus, the categories of world are attributed in order to make theological themes neutralized. For instance, natural theologians accept that this attribution is far from transcendental but is something intimately experienced by mankind.[101]

We find therefore that Hume's aim is not to eliminate the argument from design. He rather put limit to the argument since it can not provide a *rational* foundation for the religious faith. In this manner, Mounce states that "the *Dialogues* is widely held to have demolished natural theology not the argument from design".[102] The intellectual defenders of Christianity tried to take role in natural theology in order to support the revealed theology and the God of Christian orthodoxy.[103] They also tried to fill the gap between the designed universe and God's plan for humankind. I think Hume's objection is on this religious-based structure of the argument. At the introduction part of his *Dialogues*, Hume notes that proving God's existence is not as problematic as proving his attributes. The concept of God is a refined concept developing in the historical process. This has always been subject to human reason but never come to an agreement.[104] As we saw before, natural theology rests on the claims of universal human reason and/or experience in a contradictory way. Some natural theologians

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[100] However, Richmond underlines that through Locke and Hume, the limits of experiencing has narrowed down to sense-experience. Thus, the empirical characteristic of religious faith is under investigation by these philosophers. (Richmond, *Ibid*, p.23.)

[101] Mounce, *Ibid*, p.131.

[102] *Ibid,* p.109.

[103] Richmond, *Ibid*, pp.66-67.

[104] Mounce, *Ibid*, s, p.128.

use *a priori* principles and some use experiential data (*a posteriori*) in order to prove that God exists. And natural theology treats as if it were a branch of metaphysics starting with a self-evident principle to demonstrate the existence of God. They argue that nature shows clear evidence of design and a designing intelligence, namely God. Thus, design is not the conclusion of their argument but their chief premise.

For Hume whole natural theology indeed contains a single proposition affirming "that the cause, or causes of order in the universe probably bear some remote analogy to human intelligence".[105] Since the resemblances between two kinds of things do not mean a shared cause, Hume is against to analogical reasoning of argument from design.

The second main objection of Hume is about the experiment. For Hume, we have never witnessed or experienced natural objects being so produced. In the case of the argument from design the natural processes are described as the results of inferences. Moreover some comments on Hume's objection hold that the argument from design is an *inference to the best explanation*.[106]

With these points in mind we may now turn to *Dialogues*. The work begins with a distinction between natural theology and the practice of religion. For Hume, the practices of religion are the religion itself, but natural theology is a mature work on religion as a science or a study. In *Dialogues*, Demea notes that natural theology can be a subject of a child in later stages of her/his education. Demea's views on education shows the weakness of human reason. We can not explain the nature of ordinary matter although we know it exists. The source of all being requires further investigation: "The key theme here is the elimination of wrong beliefs

[105] *Ibid*, p.227.

[106] Is the argument from design an example of the inference to the best explanation? This question is discussed in the following chapter of this dissertation.

through suspension of judgments".[107] As Hume says, "in theological reasonings… we are like foreigners in a strange country."[108] In theological matters the reliability of reason is under suspicion. Cleanthes underlines the special structure of the evidence in this reasoning. Philo rejects the possibility of knowledge in divinity, because for him experience is knowledge and we have no experience in divine nature.

In the following chapter of *Dialogues*, the existence of God is considered as certain and self evident by Demea. However the nature of Deity is problematic as argued below:

> …the question can never be concerning the being, but only the nature of the deity. The former truth, as you well observe, is unquestionable and self-evident. Nothing exists without a cause; and the original cause of the universe, we call God.[109]

After Demea's proof, Cleanthes explains the existence of God according to the argument from design:

> Look round the world: Contemplate the whole and every part of it. You will find it to be nothing but one great machine; subdivided into an infinite number of lesser machines, which again admit of subdivisions, to a degree beyond what human senses and faculties can trace and explain. All these various machines, and even their most minute parts, are adjusted to each other with an accuracy, which ravishes into admiration all men, who have ever contemplated them. The curious adapting of means to ends, throughout all nature, resembles exactly, though it much exceeds, the productions of human contrivance; of human design, thought wisdom, and intelligence.[110]

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[107] Plye, A. *Hume's Dialogues Concerning Natural Religion*, Continuum, Hampshire, 2006, p.10.

[108] Hume, *Ibid,* p.135.

[109] *Ibid*, p.142.

[110] *Ibid,* p.143.

Here, through Cleanthes' explanation, we can observe how Hume understands the structure of the argument from design. But the following part of the argument does not resemble the Paleyan form of the argument since it stresses the analogy of causes:

> Since therefore the effects resemble each other, we are led to infer by all the rules of analogy, that the causes also resemble; and that the Author of nature is somewhat similar to mind of man; though possessed of much large faculties, proportioned to the grandeur of the work, which he has executed. By this argument a posteriori, and by this argument alone, we do prove at once the existence of a Deity, and his similarity to human mind and intelligence.[111]

Demea objects Cleanthes' argument. Demea finds Cleanthes' explanation incapable of demonstrating that God exists. However, this part of the argument is not in the Paleyan form. Although Paley wrote after Hume was dead, he insists on the limited capacity of human mind by contrast to the superiority and intelligence of the Designer's mind. The analogy between the watchmaker and God is not the way that Hume considers. Hume says only in the exact similarities there can be perfect analogies. However this is not the case in Paley's argument. That means, from analogy, we infer the circulation of the sap in vegetables from our experience that the blood circulates in animals. The method of reasoning in the argument to design is not a simple conclusion which is transferred from parts to the whole. In that condition, I argue that Hume's criticism of argument from design might not be valid for the intelligent design since ID followers do not deal with the attributes of God. Hume says "order, arrangement, or the adjustment of final causes is not, of itself any proof of design; but only so far as it has been experienced to proceed from that principle."[112] For Hume the concept of design is acceptable only when the

[111] *Ibid*.

[112] *Ibid*, p.146.

adjustment of means to ends in a machine put by the human mind is alike the universe.[113] That means the dissimilarity of a human contrivance can be called as contrivance if it does not have any similarities to the natural ones. Therefore in Humean perspective the universe is not similar to human art. I think this understanding of Hume is not sufficient to provide a new description of design mentioned in argument from design.

I think the concept of design is not the core point of Hume's objection which is appealing to sense experience in order to justify the intelligence of designer. That is why Hume prefers to consider the argument from design as the argument from experience which means "when two species of objects have always been observed to be conjoined together, I can *infer,* by custom, the existence of one wherever I see the existence of the other."[114] Thus, the argument from design can not be thought apart from the experience. "Like effects arise from like causes" is one of the foundations of religious analogies. According to James E. Force, this principle is "Newton's second 'Rule' of reasoning concerning the principle of uniformity with respect to causes."[115] Hume does not attack this rule of reasoning but he criticizes the instantiation of the rule for proving God's existence as a designer:

> Newton and other design theorists, in their assertions regarding the design analogy and without any direct empirical experience, feign the metaphysical hypothesis that nature will continue to be found to be uniform with respect to causes. Hume argues simply that the part cannot be made the rule for the whole in advance of experience of the whole.[116]

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[113] *Ibid*.

[114] *Ibid*, p.149.

[115] Force, J.E. "Hume's Use of Newton's Rules of Reasoning in his Criticism of the Design Argument", *Essays on The Context, Nature, and Influence of Isaac Newton's Theology*, Kluwer, Dordrecht, 1990, p.188.

[116] *Ibid*, p.189.

Force believes that Hume's criticism of this aspect of the design argument in Part II of the *Dialogues* is an echo of the design argument of the *Principia* of Newton.[117] Newton, in the *Opticks* Query 31 writes: "…the first contrivance of those very artificial parts of animals, the eyes, ears [etc]…can be the effects of nothing else than the wisdom and skill of a powerful and ever living Agent."[118] And in *Principia* he lays emphasis on system and order discernible in the universe as follows: "This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful being."[119]

Hume's objection to the argument from design in his *Dialogues* is stated below:

a. The weakness of the analogy between the world and a human artifact: For Hume, the world is not sufficiently like a known product of human design. Thus, we are not entitled to infer that the world is a product of purposive activity. This analogy also indicates that there is similarity between the mind of creator and that of man. However, in the third Part of the *Dialogues,* Cleanthes declines the similarity between the works of nature and those of human act. From the Humean point of view, applying physical order to explain the order in the divine mind does not prove anything for theism.

b. Furthermore emphasizing the weakness of the argument, the argument from design is unverifiable. Our limited and imperfect experience gives no data to establish any cosmological story. We can not determine (a priori) what kind of universe is or is not possible.[120]

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[117] *Ibid*, p.190.

[118] Quoted in Gaskin J.C.A., *Hume's Philosophy of Religion*, MacMillan, London, 1978, p.11.

[119] *Ibid*, p.12.

[120] Rabbite, E. "Hume's Critique of the Argument from Design", in *David Hume: Critical Assessments*, Vol.5: Religion, (ed.) S. Tweyman, Routledge, London and New York, 1995, p.182.

c. The order that is explained by the design argument belongs to Divine mind: The argument explains the order found in nature, tracing its cause to a prior order existing in the mind of the creator. Hume asks "by what right would we be satisfied by finding the order of the material world prefigured in a prior world of ideas?"[121]

d. To show that the world is orderly and a self-sustaining system does not necessarily result in an inference from the world to a creator/designer God. It must also be shown that this order can not be done without divine activity. For Hume, explaining "an ideal system, arranged of itself without a precedent design" is much easier than explaining an intelligently designed one.[122]

e. The inferences of the argument from design are not sufficient to affirm the infinite and perfect creator which is described in Christian theology. The God of the design argument must not be affirmed to be infinite in beneficence, power and wisdom as Hume (in the person of Philo) concludes.[123]

f. There is no reason to assume that God of the argument from design is one. It could be more than one. According to Hume the unity of the Deity is not warranted by the argument.

To be brief, Hume's approach to natural theology is about to show the core claims of theism are neither true nor false by means of empiricism.[124] Hume's criticism certainly poses problems for the argument from design. These problems are also the problems between experience and reason which theism to this day struggles to solve. However, this criticism can not be wholly connected to Paleyan natural theology. That is

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[121] Hick, *Ibid*, p.10.

[122] Hume, *Dialogues Concerning Natural Religion*, p.164.

[123] See: Philo's objection to Cleanthes: Part V of *Dialogues,* Hume, *Ibid*, pp.168-169.

[124] Yandell, K. "David Hume on Meaning, Verification and Natural Theology, *In Defense of Natural Theology: A Post-Humean Assessment,* (ed.) J.Sennett, D.Groothuis, Intervarsity Press, Illinois,p.60.

to say, Hume uses the term "argument from design" in various versions and sometimes it is hard to detect which version he means by his objections. If the argument is nothing but an argument from analogy, then it is a weak argument indeed.

We often make inductive inferences from something we observe before. Hume's main objection to argument from design is that they deliberately use this type of inference to explain unobservable entities and processes. Furthermore, argument from design accepts the inductive inferences as "evidence" for justifying their theological presuppositions. What is common to all these explanations based on religion is the lack of experience and empirical knowledge about God who is transcendental. However, according to the argument from design the lack of empirical knowledge does not lead to any failures since they do not search for the origin of the idea of God, rather they try to detect the traces of the Deity. As Gibson states, order and creativity are "the constitutive factors" of those explanations "within a schema of valuation".[125] Thus, I think, in order to reconsider Hume's objection against the argument from design we should also analyze the ways of forming the concept of something unobserved. To remember, one of the chief objections of Hume is about making inferences from experienced single cases to make judgments about the general aspects of unknown. In this reasoning analogy is used by design arguments between two singular but similar cases. In analogical reasoning the sides of the comparison are not equal: On one side there is something known by experience and on the other side there is something unknown. In this sense, Hume does not think that order, arrangement, or the adjustment of final causes are proofs of design because in this reasoning, the original principles of the mind are attributed to the world of matters.[126] For Workman analogy can be accepted as a metaphor but it has an

[125] Gibson, *Ibid.*,p.72.

[126] Hume, *Dialogues Concerning Natural Religion,* p.146.

explanatory power because by employing "subtraction" it makes unknown understandable or imaginable.[127] For instance, "when electrons are said to be like billiard balls… selected properties such as visible size, color, etc. are subtracted from the picture."[128] Thus, the weakness of analogies is not about the description but justification.

Following those explanation it can be said that argument from design can not be a powerful argument for describing the phenomenal world. However Sober claims that design arguments can save themselves from Humean objection if considered as "inference to the best explanation":

> For [Hume] the argument is not an inference to the best explanation; rather, it is an argument from analogy, or an inductive argument. This alternate conception of the argument makes a great deal of difference. Hume's criticisms are quite powerful if the argument has the character he attributes to it. But if the argument is, as I maintain, an inference to the best explanation, Hume's criticism entirely lose their bite.[129]

Since deciding the best explanation is not so easy, inference to the best explanation (IBE) is relevant to a method for deciding the best inference for the conditions. Therefore, here it is important to analyze IBE considering Hume's objection to design argument. As Peter Lipton says

> …where the evidence and the rules of deduction underdetermined inference, that information also underdetermines missing principles. There will always be many different possible mechanisms that would produce the same patterns, so how can one decide which one is actually operating?[130]

So the conclusion of a correct IBE does not have to be true, it is rather a selected member ("likeliest") of a pool of possible explanations of

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[127] Workman, R.W., "What Makes an Explanation", *Philosophy of Science,* Vol.31, No.3, 1964, p. 251.

[128] *Ibid.*

[129] Sober, E. *Philosophy of Biology*, Westview Press, 2nd Edition, USA, 2000, p.33.

[130] Lipton, P., *Inference to the Best Explanation*, Routledge, London, 1993, p.15.

the phenomenon that is to be explained. According to IBE, "we do not infer the best actual explanation; rather we infer that the best of the available potential explanations is an actual explanation".[131] Lipton's definition represents that the likeliest explanation is the most warranted one; on the other hand the most explanatory or most understanding one is the "loveliest" explanation. About this distinction he says the following: "The criteria of likeliness and loveliness may well pick out the same explanation, but they are clearly different sorts of standards. Likeliness speaks of truth; loveliness of potential understanding."[132]

If we apply this distinction to our subject matter, I may conclude that Hesiod's cosmological explanation model is one of the loveliest explanations of his time due to the effects of the mythological thinking during this period which can be accepted as a potential understanding. However, since Anaxagoras' "nous" has more explanatory power and provides more than a mythological explanation (Hesiod's "love"), Hesiod's design explanation becomes less likely but it still keeps its loveliness.

According to Lipton, IBE has different models to decide which explanation is the best one. The reason model explains a phenomenon by giving a reason to believe that the phenomenon occurs.[133] However, the reason model does not give an account of understanding as to why the phenomenon occurs because we already have the reason when we know that it occurs.[134] For instance "suppose you ask me why there are peculiar tracks in the snow in front of my house. Looking at the tracks, I explain to you that a person in snowshoes recently passed this way."[135] This

[131] *Ibid*., p.60.

[132] *Ibid*, p.61.

[133] *Ibid,* p.26.

[134] *Ibid*.

[135] *Ibid*.

explanation is the loveliest one. It does not give any information about the agent and does not guarantee the designer's agency. The role of designer's agency will be discussed in next chapter.

CHAPTER 3

ARGUMENT TO DESIGN

The argument from design as natural theology is different from the classical versions of the argument in two respects: first, it is based on the scriptural truths of Christianity; and secondly it accepts the existence of an intelligent designer as a premise. The appearances of natural facts are noted, categorized and listed by the natural theologians as the supportive claims for their design argument. According to their framework, those who have eyes can experience there is a design in the universe. Two distinct concepts, namely “natural” and “theology” are used together for the purpose of realizing the utmost feature of natural theology which is to make supernatural comprehensible for the believers. As mentioned in the previous section, Hume’s objection focuses on debating about the content of design arguments in general. In this section, I will mention about the Immanuel Kant’s objection to theology in general. And then, a brief historical background of Paley’s natural theology will be presented.

3.1. Natural Theology

David Hume’s objection to argument from design was received in German philosophy by Immanuel Kant (1724-1804). For Kant, the argument from design as a cosmological argument fails because the unlimited sequences of causes and effects transformed to the limited area of experience. In general, for Kant all theological arguments based on experience have to fail. Kant’s critique of theology results in the incapability of theologies in terms of providing us true knowledge about God and His existence. Many commentators state Kant’s defeating the metaphysical statements including the nature and the attributes of God, namely natural

theology.[136] To this extent I should note that, Kant rejects the possibility of metaphysics in all areas. However, the term 'theology' was used synonymously with 'Biblical studies' or 'revealed theology' at that time. Prior to Kant, there was no clear and strict distinction between theology and metaphysics. I think, for Kant in order to criticize the natural theology, it is important to eliminate God in three respects: explanation of the natural things (in science), reality of our daily problems (in ethics), and a result of the epistemological gaps of human intellect (in philosophy). In Kant's view, we neither become embedded nor leave out transcendental ideas (of God, freedom and immortality). [137] At this point, Kant introduces a distinction between his position and Hume's deism. On the one hand, Kant accepts Hume's critique of divine nature based on the philosophical and historical implications of "dogmatic anthropormorphism"; on the other hand, Kant approves the necessity of a "symbolical anthropomorhism" which is based on the nature of reason itself.[138] For Gill, Kant's criticism completes the Humean one because Kant emphasizes that natural theology as a symbolical anthropomorhism "only attributes characteristics of human experience to the relation of God to the world, not to God's nature as such and thus is concerned with language rather than noumenal reality."[139] On the basis of this, God is knowable by us only by analogies. To speak of God as Supreme Being does not express any knowledge for the content of theology. Rather it means to give some additional names to God such as designer, commander, etc. Then, I think Kant left nothing other than

[136] Palmquist, Stephen, Kant's Theocentric Metaphysics, http://www.hkbu.edu.hk/~ppp/srp/arts/KTM.html.

[137] Gill, Jerry, H.,"Kant, Analogy and Natural Theology", *International Journal of Philosophy of Religion*, 16:1, 1984, p.20.

[138] Gill, *Ibid*, p.21 quoted from *Prolegomena*, p.106. Huxley also emphasizes that the Humean criticism of religion is about the dogmatic theology. (Huxley, T., "Theism; Evolution of Theology", *Hume on Natural Religion*, S.Tweyman (ed.), Thoemmes Press, Bristol, 1996, p.130.

[139] *Ibid*., pp.21-22.

analogies for the methodology of natural theology. Kant's analysis of theologies is not limited to what Gill expresses. Thus below I briefly elaborate more about Kant's objection to natural theology. Kant calls natural theology as physico-theology and defines as such:

> Natural theology infers the properties and the existence of an Author of the world from the constitution, the order and unity, exhibited in the world… From this world natural theology ascends to a supreme intelligence…it is entitled *physico-theology*…[140]

For Kant, the supreme intelligence that is derived from nature by natural theology is also the principle of all natural order and perfection. Kant considers that this method of the argument is not capable of proving the creator God because,

> [o]n this method of argument the purposiveness and harmonious adaptation of so much in nature can suffice to prove the contingency of the form merely, not of the matter, that is not of the substance in the world. To prove the latter we should have to demonstrate that the things in the world would not of themselves be capable of such order and harmony, in accordance with universal laws, if they were not *in their substance* the product of supreme wisdom. But to prove this we should require quite other grounds of proof than those which are derived from the analogy with human art. The utmost, therefore, that the argument can prove is an *architect* of the world who is always very much hampered by the adaptability of the material in which he works, not a *creator* of the world to whose idea everything is subject.[141]

In other words, Kant does not agree with the methodology of natural theology (as argument from design) which is based on the inference of a designer from the purposiveness of nature. Even if Kant accepted that natural theology plays a philosophical role in thinking about nature and God, he would reject that this argument could serve for the Christian God.

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[140] Kant, I.,*Critique of Pure Reason*, (trans.) N.K. Smith, St. Martin's Press, New York, 1995, pp.525-526. [A632.B600]

[141] *Ibid*, p.522. [A627.B655]

The philosophical weaknesses of natural theology bring Kant and Hume together. Loesberg underlines the common point as such: "Both of them show, therefore, not that the conclusion of the design argument is either right or wrong about ultimate questions, but that it simply has no ability to say anything meaningful about the material world."[142]

To sum up, Kant's criticism of natural theology as argument from design completes Humean one concerning the epistemological background of inferences of the argument and the rationality of the idea of God, and the philosophical situation of faith and knowledge. I think Kant's criticism is more about the *unnatural* aspect of theology whereas Hume's objection is about the argument from design.

Remembering these criticisms, we see that the religious background of the emergence of natural theology was a tool for English Christian (Anglican) Church in order to reanimate the interest in religion. Turner suggests that natural theology became an apologetic tool of Bible, thus he defines the fundamental goal of natural theology in those days as "to avoid social turmoil by repudiating the claims of atheism and materialism".[143] Matthews notes that the position of natural theology is a "theological non-naturalistic position".[144] According to Matthews' description natural theology can not confirm or disconfirm the truths of divine revelation because it does not have a mission such as giving meaning to religious beliefs.[145] Regarding the progress of natural theology we see that this attitude has been shaped by the interrelation between theology, philosophy and science. In this sense, natural theology emphasizes the analysis of

[142] Loesberg, J., "Kant, Hume, Darwin and Design: Why Intelligent Design wasn't science before Darwin and Still Isn't?", *The Philosophical Forum*, 2007, p.105.

[143] Frank M. Turner, *Contesting Cultural Authority: Essays in Victorian Intellectual Life*, Cambridge University Press, Cambridge, 1993, p.119.

[144] Matthews, G.B. "Theology and Natural Theology", *The Journal of Philosophy,* Vol.61, No.3, 1964, p.100.

[145] *Ibid*.

experiencing the world because the supernatural order forces "those who have eyes of faith to see God is present and acts within historical events and aspects of nature".[146] Thus natural theology, began in seventeenth century of England, tells us one can find his/her own way to religious belief "without recourse to any instruments of ecclesial authority through reflection on the natural order." [147] The intellectual strategy of natural theology concentrates on creating an easy understanding of religious information dissimilar to traditional Christian approaches.[148]

The fundamental assumption of natural theology is to read the book of nature without the need of theistic presuppositions. Humanity could discover and relate to God under terms of its own preferences, rather than dictated by primarily Christianity and generally religions. The essential point here is that "natural theology posits that something of God may be known outside the Christian tradition".[149] For Hutchison, the assumption lying behind this sort of thought is quite relevant to our apprehension of self and world:

> Thus "man" or "world" appears in the premises of the argument while "God" or the "existence of God" appears in the conclusion. The existence of God thus appears in most modern Western natural theology as a hypothesis to be confirmed or infirmed by evidence derived from man's experience of the world.[150]

From the perspective of the methodology of Natural theology, the knowledge of God is resulted from collecting evidence from nature. It is supposed that "natural theology represents a potential ground of dialogue

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[146] McGrath, *Ibid*, p.68.

[147] *Ibid*.,p.71.

[148] *Ibid.*

[149] *Ibid*., p.64.

[150] Hutchison, J. "The Uses of Natural Theology an Essay in Redefinition", *The Journal of Philosophy*, Vol:55, No:22, 1958, p.939.

between Christian theology, natural philosophy, the natural sciences, literature, and art."[151] The interaction between natural theology and other disciplines may lead to a disagreement on the idea of God and his creating activity. In Christian theology, creation is described rather as a "process" than as an "act".[152] In natural theology, God is pictured as an artisan or contriver. He sometimes functions as filling gaps left by "imperfect" natural events. For Pannenberg, this is reasonable because the theological assertions about the world as creation become related to "scientific description of the natural world."[153]

Natural theology is relevant to its being a project of a philosophical understanding, namely *empirical theology*. This understanding belongs to John Locke, long before Paley's time. Locke is an important figure in the British natural theology tradition which emerged as a combination of philosophy and an illuminated (philosophical) theology. Locke's search for the certainty of the proof for Eternal Being became the classical model of natural theology and its epistemological approach to its subject matter. As mentioned in the previous chapter, Locke and Hume determined the basic characteristics of Anglo-Saxon theology. In his *Essay*, Locke held that our knowledge is limited. However for Locke, we should not complain about our limited knowledge. The important thing is to recognize our limits and learn to work and act with them. Locke's religious views are consistent with this empirical approach since Christianity is shown to be "reasonable" from his empirical point of view to knowledge.[154] Locke's main principle is this: "We have the Knowledge of our own Existence by Intuition; of the

[151] McGrath, *Ibid*., p.65.

[152] Raven C.A., *Natural Religion and Christian Theology*, Cambridge University Press, Cambridge, 1953, pp.130-131.

[153] Pannenberg, W. *Toward a Theology of Nature*: Essays on Science and Faith, Westminster, Kentucky, 1993, p.33.

[154] See: Stephen N. Williams, "John Locke on the Status of Faith", *Scottish Journal of Theology*, 40, 1987, pp. 591-606.

Existence of God by Demonstration; and of other Things by Perception"[155] So, how this epistemological framework leads to knowledge of God, to His existence, and more specifically, to an understanding of God's nature? Locke's answer to this question is that the idea of God is complicated and is the result of the reflections of nature on mind. Mind produces some relationship between its own position and the world, and God is a product of a series of ideas about the world. That is clear that Locke does not regard God as a simple idea. The epistemic questions arise as to how the human mind correlates with series of ideas about the world and God as a simple idea. According to Sweet's analysis regarding this question, Locke's idea of God does not present a tension between the a priori and a posteriori because Locke accepts revelation as evidence.[156] In short, for Locke belief comes from reason. The reliability of the source of these beliefs is externally confirmed as true. This connection entails revelation as the genuine source. As Sweet concludes; "[i]t is important to recognize that, for Locke, 'proof' can be probabilistic, [but] 'reasonability' requires 'sufficient evidence..."[157]

What natural theologians meant by proof and evidence and the evidential characteristic of religious beliefs are extensively discussed by Alvin Plantinga. For Plantinga, prospects for natural theology can be classified in three: producing proof for theism, convincing yourself or others for the belief in God, looking for new theistic arguments for the sake of philosophy.[158] I think those points emphasized by Plantinga imply other three points: First, natural theology produces proofs for theism based on

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[155] John Locke, *An Essay Concerning Human Understanding*, ed. By P.H. Nidditch, Oxford: Clarendon Press, 1975, IX.i.2; 618.17-19.

[156] Sweet, *Ibid*, p.146.

[157] *Ibid,* p.147.

[158] Plantinga, A. "The Prospects for Natural Theology", *Philosophical Perspectives*, 5, 1991, p.287.

empirical evidence which seems stronger than a priori arguments. Secondly, natural theologians claim to convince themselves or others for the belief in God in accordance with the requirements of an epistemological analysis on *faith*. Lastly, they are looking for warranted theistic but *philosophically useful* arguments. Historically, as I discussed earlier, the first philosophers tried to understand nature and they stuck to cosmological explanations about nature which supported understanding the nature of nature. However, in medieval age, theism was considered as the way of understanding the universe through the existence of God. From the theological perspective of medieval thinkers the argument from design functions between faith and episteme like a justification tool. On this relation, the epistemic status of the designer and his intelligence becomes self-evidently acceptable. The classical versions of design arguments do not consider any gap between faith and knowledge until Hume's objection. The problem at the beginning of eighteenth century becomes a problem of finding "evidence" in nature. Returning to Plantinga's comment, the main focus of the natural theology is composing a warranted belief for the existence of God through nature.[159]

In addition to Plantinga's account, Smith makes another comment on the prospects for natural theology. He notes that the main aspect of natural theology is to consider arguments based on unaided reason which means a reason "operating in its natural capacity and without recourse to anything other than human experience of the world and ourselves".[160] For Smith, in accordance with this definition, the philosophical character of natural theology comes from the concept of "the light of reason".[161] Smith

[159] *Ibid*, p.311.

[160] Smith, J.E., "Prospects for Natural Theology", *Monist*, Vol:75, No:3, 1992, p.406.

[161] Ibid, p.409. As mentioned in the previous sections, "the light of reason" is considered as a way of knowing the world and a tool owned by mankind for reconciliation of faith and physical world. The necessity of this concept for natural theologians is relevant to the limited cognitive faculty of man. By the light of reason, man can *experience* that God exists.

says natural theology "indicates directly the enterprise of treating theological ideas from a philosophical perspective and does not require an absolute distinction between… the natural and what lies beyond."[162] What is the role of natural phenomena for grasping that God exists? Smith replies that there is no strict distinction in natural theology between what is known by reason and what is true by Revelation.[163] This principle connection of natural theology signifies that the ideas about the nature of God and nature are considered as intelligible and understandable by reason. This form of rationality in natural theology, for Smith, implies that the deliverances of experience necessarily prove the existence of God: God is truth and is made known in and through natural phenomena.[164] Natural theologians claim that the invisible character of God is visible in nature which is His masterpiece.

Moreover, John Hutchison examines some other elements of natural theology. I think his examination bring us new questions about how natural theology functions between religion and science, theology and philosophy. For Hutchison, since natural theology is based on the principles of natural philosophy it tries to unify the truth of two distinct categories: "truth of religion" and "truth of science".[165] I think we should understand here that natural theologians think that such integration strengthened the faith in God rather than destroying it. Secondly, Hutchison make a comment on the usage of empiricism in natural theology. He says that, by promoting empirical thinking, natural theologians tried to correct "the superstitious

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[162] *Ibid.*

[163] *Ibid,* p. 411.

[164] *Ibid*, p.413.

[165] Hutchison, J.C., "The Desing Argument in Scientific Discourse Historical-Theological Perspective from Seventeenth Century", *Journal of the Evangelical Theological Society*, 41/1, 1988, p.101.

model of nature in medieval theology."[166] That is true because natural theology promotes the empirical thinking which helps to deliver a physical cause-effect relationship rather than appealing to metaphysics or miracles. Lastly, Hutchison mentions the mechanical conception of nature in natural theology.[167] As I will present in the following section, Paley especially investigates the mechanical character of nature in detail. Thus the metaphors of natural theologians emphasize the wisdom of God through the laws and empirical structure of materials.

Keeping those fundamental approaches of natural theology, I should give some examples used in natural theology. I suppose that this illustration leads to a better understanding of the Paleyan Natural Theology between argument from design and intelligent design.

In the works of John Wilkins (1614-1672) and Robert Boyle (1627-1691), we see the first illustrations of natural theology. Mandelbrote concentrates on a common point in these works: they both accepted "providential ordering of nature and consequent lawful operation of the universe" as a proof of divine will.[168] Since their proofs of divine superintendence and of the power of the divine-will were against atheism, Wilkins and Boyle especially elaborated personal involvement of God in creation.[169] Boyle in *A Free Enquiry into the Vulgarly Received Notion of Nature* (1686) suggested that divine providence has a particular purpose in creating the world that is to establish a better design and form.[170] Mandelbrote summarizes that "Wilkins and Boyle were in agreement over

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[166] *Ibid.*

[167] *Ibid*, pp.101-102.

[168] Mandelbrote, S., "The Uses of Natural Theology in Seventeenth-Century England", *Science in Context*, 20 (3), 2007, p.451.

[169] *Ibid.*

[170] *Ibid.*, p.465. Mandelbrote quoted from Boyle (1686), 1996, pp.11-12, 39-40, 59-60, 69-71 and 160-161.

the necessity of the laws that God had established to govern the universe that he had created."[171] Ultimately, Wilkins and Boyle appreciate that entire world is a mechanism.[172] The lawfulness of nature, for these names, shows that God's providence can be understood principally in terms of regularities in this universe.[173]

The principles of Wilkins and Boyle were improved by John Ray, who published *The Wisdom of God Manifested in the Works of Creation* in 1691. Ray followed a view that, in his opinion, science could not be concerned with explaining the origin of things in nature but rather it should name, classify or describe them. This descriptive power of science also displays wise design of natural things.[174] By Ray's position, natural theology welcomes science as a tool. For the rest of the seventeenth and the eighteenth centuries, the argument from design was considered as the argument from the design of the mechanism.[175] For these authors, the mission of natural theology is not solely to produce evidence of design. Natural theology should promote wonder and increase awareness of the divine within humans.[176]

Lastly, I take two more approaches into consideration. They are contemporary representatives of natural theology, Paul Tillich (1886-1965) and Friedrich Robert Tennant (1866-1957). Since this dissertation aims to

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[171] *Ibid*., p.465.

[172] Peterfreund, S., "From the Forbidden to the Familiar: The Way of Natural Theology Leading up to and beyond the Long Eighteenth Century", *Studies in Eighteenth Century Culture,* Vol:37, 2008, p.31.

[173] *Ibid*, p.466.

[174] Raven, C.E. *John Ray: Naturalist*, Cambridge, 1986, pp.6-7.

[175] Peterfreund, *Ibid*, p.32.

[176] Mandelbrote, *Ibid*., p.469. In the late nineteenth century of England, some theologians were funded by Royal Society. Theologians were asked to find evidence for the creating activity of God, find arguments for the variety and formation of creatures. *Bridgewater Treatises* are the results of their investigation. (New Advent Catholic Encyclopedia: http://www.newadvent.org/cathen/02783b.htm)

analyze the importance of Paleyan argument to design, I just make a brief presentation of Tillich's and Tennant's approaches to the problem. Their approaches are important because they summarize the philosophical implications of natural theology. Keeping their philosophical distinctions in mind may result in enhancing analysis of natural theology. The views of Tillich and Tennant attempt to highlight the distance of natural theology to the classical religious tradition. As Smith points out, Tillich and Tennant indicate that the use of the concept of God plays a significant role in the tradition of natural theology which has the purpose of being legitimate in theology, philosophy and science.[177] In the views of Tillich and Tennant, according to Smith's analysis, we have a methodological distinction: while Tillich uses an "ontological-religious" approach, Tennant prefers a "cosmological-scientific" one.[178] Briefly, in Tillich's ontological-religious presentation of natural theology the way from self to God presupposes an awareness of self which is sufficient to recover the presence of God. Thus, for Tillich, God as sublime is in my mind as a result of a process of reflection.[179] On the other hand, for Tennant, world of fact is beyond the self, and nature is the beginning point of man. Smith expresses this comparison as follows:

> In the former case, we have the approach through the contingency of existence as such, while in the latter case we are concerned not with the general fact of existence, but with the particular character of the natural world- that it forms an order of nature and presents an adaptation of structure and function which suggests that it is the work of a designer.[180]

Then their conceptualization of natural theology can be summarized

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[177] Smith, J.E., "The Present Status of Natural Theology", *The Journal of Philosophy*, Vol. 55, No:22, 1958, pp. 925-926.

[178] *Ibid*, pp.927-928.

[179] *Ibid*.

[180] *Ibid*., p.929.

according to their methodologies: Tillich's natural theology which is a rational theology, since it starts with the general fact of existence as a priori, presupposes a religious consciousness. On the other hand, Tennant emphasizes experience and establishes a natural theology that presupposes a posteriori methodology in order to understand the particular character of the natural world as being ordered by a designer.

This comparison made by Smith summarizes the two main approaches of natural theology. I conclude from this comparison that natural theologians' inquiry of divine and their examination of nature require a conception of God as a premise. Thus in both approaches of natural theology the idea of God is present. And I argue that the origin of the idea of God is not important in design arguments. Rather the way of determination of His intelligence at designing process and the need of purpose in nature becomes central subject of philosophical comments.

3.2. William Paley's *Natural Theology*

William Paley's *Natural Theology or Evidences of the Existence and Attributes of the Deity: Collected from Appearances of Nature* was first published in 1802. Paley made the broadest explanation of design argument for philosophers, theologians and biologists in this book. Aileen Fyfe, who has investigated the publishing history of *Natural Theology*, accepts Paley's book as a classical masterpiece for the history of Christian apologetic texts. However, Fyfe underlines an important point: Paley's *Natural Theology* is not just a theology but also a representation of Christian domination in the scientific framework. For Fyfe, the main aspect of the book is to establish a science for the sake of creation and this motivation has been used by the publishers for the purpose of keeping the public interest in the topic alive. Thus, the publishers of Paley's *Natural Theology* revised the book and made some transformations on the text in accordance with the scientific advancements. Paley's book keeps its

modern impression of work of popular "safe" science rather than an old work of natural theology.[181] According to Fyfe's research, between 1802 and 1902, *Natural Theology* made 57 reprints, 80000 copies in Britain. Among these reprints there are also cheap and simplified copies which were used in order to teach public that scientific principles are in harmony with the Christian discourse. This shows us that Paley's book was widely read. It was one of the accepted resources for "safe-science" education at Oxford like *Bridgewater Treatises*. However, as Fyfe notes, the Chambers' edition which was published in 1849 has obvious additions which are extra examples, or news of things discovered after author's time. By those additions of publishers the harmony between science and faith in Paley's text became under threat. Especially Clark's edition was edited by a member of Royal Society in 1875 in order to emphasize the handiwork of Designer against Darwin's explanations. As Fyfe illustrates, "…in Chapter 21, Paley had written about the manner in which a 'sprig of mint, corked up with a small portion of foul air, placed in the light, renders it again capable of supporting life or flame... The plant purifies, what the animal has poisoned; in return, the contaminated air is more than ordinarily nutritious to the plant". [182] However, Fyfe notes that in 1875, Clark expressed this exchange as "a chemical one" and "writing that 'Plants require that which is deleterious to animals: the former absorb carbonic acid, and, after decomposing it, yield oxygen for the use of the latter: other injurious gases are likewise resolved into their elements in various ways, to be again rendered available for new combinations".[183] These terms make it obvious that these are not Paley's words. Fyfe thinks that both writers try to explain

[181] Fyfe, A., "Publishing and the classics: Paley's Natural Theology and the nineteenth-century scientific canon", *Studies in History and Philosophy of Science*, 33, 2002, pp.736-741.

[182] *Ibid,* p.748.

[183] *Ibid.*

"the gas exchange between plants and animals as an illustration of divine planning, but Clark explains it in the modern terminology of carbonic acid and oxygen, elements, and decomposition."[184] Thus, as Fyfe notes, the illustrations of Paley have been revised by editors. The aim of those revisions is to strengthen the "safe science" knowledge of the book in parallel to the advances of natural sciences.

The design argument of Paley is not sufficient to justify a belief in God's existence; however, it is an attempt to support an epistemic reason for such a belief by some empirical appearances of nature. Paley's explanation model is as remarkable as his philosophical method. Although David Hume attacked design arguments in general in his *Dialogues*, we see that Paley insisted in his views and does not reply Hume's objections.

As Everitt puts, we should make some distinctions among the natural theologies of the period. I endorse his distinction, namely the *argument from order* and *the argument to design*.[185] The argument from order argues for the fact that "the universe has an order and displays regularities to the conclusion that there must be a cosmic intelligence responsible from creating or imposing and maintaining the order."[186] The argument to design is another version of teleological argument and "focuses on instances of seeming design which are obvious to casual observation of the world around us".[187] Given that a design is more than just a pattern it is thought that the existence of God as an intelligent designer is acceptable even for atheists.

Regarding this distinction, we may say that Paley does not emphasize the notion of creation or Christian God, and his method is dissimilar to cosmological arguments and ontological or teleological ones.

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[184] *Ibid.*

[185] Everitt, N., *The Non-Existence of God*, Routledge, London and New York, 2004, p.85.

[186] *Ibid*., p.86.

[187] *Ibid*, p.96

Here, *being* of nature is not the subject of investigation. The aim of Paley is to clarify evidences for a designed nature that are raised by intelligibly ordered natural processes. Additionally, Paley considers nature as a machine (a watch) which has an artificer (watchmaker) and this machine was formed for a purpose. Whether the purpose of nature can be discovered or not is not a vital question for Paley. Nature is the object of our observations, and through our observations we unsurprisingly can detect a contrivance: "Arrangement, disposition of parts, subserviency of means to an end, relation of instrument to a use imply the presence of intelligence and mind."[188]

The characteristic of Paley's work is to show evidences for the existence of a Designer. The term "evidence" presents a crucial role in *Natural Theology*. We should notice his philosophical method in order to prove God as designer by means of these three themes: The unity of purpose under variety of expedients[189]; the intelligence of an artificer and the evidences of a contrivance.

3.2.1. Paley's Argument: Watch and Telescope Analogies

William Paley states his argument through his famous watch analogy. At the beginning of his *Natural Theology* he explains:

> In crossing a heath, suppose I pitched my foot against a *stone*, and were asked how the stone came to be there, I might possibly answer, that, for any thing I knew to the contrary, it had lain there for ever: nor would it perhaps be very easy to shew the absurdity of this

[188] Paley, W. *Natural Theology or Evidence of the Existence and Attributes of the Deity collected from the appearances of nature*, Oxford, 2006, p.11.

[189] Paley uses the word 'purpose' not in a theological way. Purpose means here an oriented activity or goal in the universe, and in nature. Paley does not see any historically predetermined direction of natural processes. On the other hand, in Paley's understanding, the organisms, in general, have a common structure that he calls contrivance.

> answer. But suppose I had found a *watch* upon the ground, and it should be enquired how the watch happened to be in that place, I should hardly think of the answer which I had before given, that, for any thing I knew, the watch might have been always there… For this reason,… when we come to inspect the watch, we perceive (what we could not discover in the stone) that its several parts are framed and put together for a purpose… [190]

The analogy of Paley deserves to be a subject of philosophical analysis since it has epistemological, metaphysical and ontological implications. Some critical questions arise from this analogy: What are the differences between a natural object and a designed object? Does a designed object necessarily need a designer? Why does not the same answer serve for an artifact? Does the difference belong to our minds or perceptions?

First of all, there is a difference between a stone and a watch according to their purposes, complexities and natures: We should accept that a stone is a natural object or an object belongs to nature; however a watch is an artifact or a designed object. A stone does not have too much complexity to be inspected, but a watch has many components that are adjusted and put together in order to show the time correctly. In other words, a watch is a mechanism that is composed of many differently shaped parts. The parts of a watch are in their correct and regulated place to produce a motion: Showing time. It has an order, so that it can not work other than its inner (original) regulated and predefined mechanism. According to Paley, this mechanism requires the inevitable inference that the watch must have a maker (artificer) or makers (artificers) who formed it for this purpose, who comprehended its construction and designed its

[190] *Ibid*., p.7. Before Paley, David Hume used watch analogy to show that it is a product of a mindful process: "Throw several pieces of steel together, without shape and form; they will never arrange themselves so as to compose a watch… Experience, therefore, proves, that there is an original principle in mind, not in matter." (Hume, *Dialogues Concerning Natural Religion*, p.146.)

use.[191] This conclusion is the core idea of Paley's argument in *Natural Theology*.

Secondly, even if we saw a watch working properly, no doubt would raise in our minds about the existence and the agency of an artist at some former time.[192] Such a conclusion is inevitably acceptable. For Paley, in this instance the perfection of the mechanism is not a necessary condition but the demonstration of its *designed process* is important.[193] If it was stated that sometimes the watch might show the wrong time, I think Paley would have replied to this objection by taking into consideration the *designed structure* of the mechanism. Since some parts of the watch might be undiscovered; their functions to the general effect might be insufficiently understood, this might be related to the incomplete analysis of the observer. According to Paley, "superfluous parts of the mechanism" might have organize other parts and independently of our prejudices.[194]

I think that the existing watch is not the unique possible structure of the mechanism; it represents one of the combinations of material forms. Therefore, for Paley the role of the designer is inferred from the special ability of selecting the best possibility that "the watch exhibits one configuration of other possible forms".[195] The principle of order necessitates a superior ability and it goes beyond the appearant

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[191] *Ibid*, p.8.

[192] *Ibid*, pp.8-10.

[193] The validity of the argument for the existence of Designer is not the subject here. Many commentators of Paley try to solve out how this analogy leads to proving that God exists. However, the analogy of Paley is based on the validity of "the demonstration that a single watch was necessarily produced by the combined activity of mind, hand and skills of a watch-maker… It evidently requires the unity of an observation, a manipulation and a skill. It also indicates the *intrinsic* unity of the producer (agent)." (Lenartowics P., Koszteyn J., "On Paley, Epagogé, Technical Mind and A Fortiori Argumentation", *Forum Philosophicum*, Cracovia, 2002, p.56.)

[194] Paley, *Ibid*, p.8

[195] *Ibid*, p.9.

possibilities which are only owned by the intelligence of the watch-maker. We do not need a proof of contrivance or the mechanism of watch but we are motivated to induce the mind of the maker.[196]

Paley states that watch is a product of an agent who uses his power according to "laws of the *metallic* nature" of a watch.[197] The "laws of the *metallic* nature" are connected to the role of agency in terms of that, laws do nothing without agency.[198]

According to Paley's argument, mankind has a limited knowledge and has to obey and trust the intelligence of nature beyond what he could partly discover. The observer only knows little. In other words, observer's knowledge is limited to the utility of the end, subservience and adaptation of the means to the end. However, Paley thinks this "subservient character of man" should not result in a distrust of what he knows.[199]

Similar to the status of an observer in front of a watch-maker, we, with the consciousness of our limited knowledge, should accept the existence of an artificer and the contrivance of his mechanism. As discussed previously, conceptualizing *design* is not so simple. Philosophically, I may consider that there is no difference between a stone and a watch. However this approach does not make any sense for Paley's methodology. By his argument, he tries to construct a reconciled ground for both natural theology and philosophy. What Paley infers from the watchmaker analogy is a way of making supernatural comprehensible for the reader.

Paley improves his argument further by supposing that the person who found the watch discovers that the watch owns the surprising

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[196] *Ibid,* pp.9-10.

[197] *Ibid*., p.10.

[198] *Ibid.*

[199] *Ibid,* p.12.

possibility and ability of producing another watch like itself.[200] This effect does not decrease our belief in the fact that the watch has a skillful designer since the observer would consider that real maker is the one who made the first watch and able to reproduce the machinery.

> There cannot be design without designer; contrivance without a contriver; order, without choice, arrangement, without anything capable of arranging… Arrangement, disposition of parts, subserviency of means to an end, relation of instruments to a use, imply the presence of intelligence and mind… All these properties, therefore, are as much unaccounted for as they were before.[201]

Furthermore, for Paley, if the observer carries the problem further back until finding the first watch it will bring no –new- solution. This supposition still supplies that, there is a contrivance. The maker of the watch, before us, is the maker of every possible watch. Thus there is no difference between the making of a watch in his skillful hands and making of another by the use of machinery he himself built in the first sample.

The conclusion in the first two chapters of Paley's *Natural Theology* in which he states his argument is this: The observer has two different examinations of the watch that he found. The first examination of the watch tells that the watch must have a maker who understood its mechanism and designed it according to its purpose and/or use. Additionally, the second examination resulted in the discovery that the watch could reproduce itself, but it also strengthens the idea and the admiration that it was also built evidently in the intended purpose. This point is crucial considering the Darwinian theory of evolution since Paley does not accept the reproduction and derivation of new samples without the presence of an intelligent and the intention of a skilful artist. The contrivance is definite and every new reproduction increases the existence of the maker. The reasoning of a

[200] *Ibid*, p.11

[201] *Ibid*, pp.12-13.

watch naturally imposes its functional principles to a reasonable mind. All minds can directly understand what a watch is and why it exists. Here, this directness is equal to having evidence. But the evidence for the designer does not stem from a causal relation.

Paley follows analogical thinking and says that the indications of design presented in the watch exist in the work of nature much greater degree:

> I mean that the contrivances of nature surpass the contrivances of art, in the complexity, subtlety, and curiosity of the mechanism; and still more, if possible, do they go beyond them in number and variety…[202]

To support this conclusion he proceeds to compare the human eye with a telescope. Eye is made for vision (perceiving organ), telescope is to assist (an unperceiving organ). They are made upon the same principles of visualization, namely transmission and refraction of rays of light through regulating them. In short, both are fixed according to some required laws in order to produce proper effect. Although the eye is a perceiving organ and the other is an unperceiving instrument they both serve to the same means.

For Paley the adaptation of means to an end is the definition of the principle of order. However, there should be a difference from an Intelligent Creator. He thinks that Intelligent Creator can not be reduced to a principle of order even if a principle of order signifies the mind and intention.[203] A watch can not be produced as a result of a principle of order. And for Paley, a principle of order can act blindly and without choice. Such an order can not be universal and intelligent. In this respect order becomes dependent upon our desire. Whenever we do not want order it would be

[202] *Ibid*, p.16.

[203] *Ibid*, p.42.

useless. In other words, the order without useful purpose is not a subject of contrivance. I think the distinction that is made by Paley between a principle of order and Intelligent Creator tells us the difference between these two arguments: Argument from order and argument from design. Until now, we understand that Paley's argument from design is not based on a principle of order; he expects more than this.

3.2.2. Paley on the Mechanical and Immechanical Parts and Functions of Animals and Vegetables:

Paley's watch and telescope analogies can not be considered as the traditional strategy of natural theology because of the fact that he especially emphasizes the identity of mechanical principles. Why did Paley emphasize the principles of mechanism? Neal Gillespie, who payes attention to Paley's reformed natural theology called Paley's insistence on the equation of mechanism in living bodies and in machinery as the "identity argument".[204] According to Gillespie's definition, Paley emphasized the identity of the mechanical principles in both human and divine contrivances so that he tried to show the reader that, if we trace the mechanism, this special complexity alone can prove contrivance that belongs to an intelligent designer. Thus, mechanism is itself sufficient to prove the need of a designer and his intelligence. For Gillespie, Paley thinks that the identity principle clearly implies the personal agency of designer.[205] I think Gillespie's argument is right to illustrate what Paley had in mind in conceptualizing his argument to design. The identification of mechanism, machinery and living bodies is very familiar for an observer. Personally, people can understand this identification because the principles of mechanism are the most intimate characteristics of observers regarding

[204] Gillespie, N.C., "Divine Design and the Industrial Revolution: William Paley's Abortive Reform on Natural Theology", *Isis*, Vol:81, No:2, 1990, p.216.

[205] *Ibid*, p.217.

their own bodies. Paley's strategy here, as Gillespie notes, is an association of different experiences on nature in a common but amazing principle. As mentioned above, Paley first illustrated the purposefulness of a watch and the structure of a telescope comparing the eye.

Paley tries to show that the intelligent mind of the designer demonstrates His art both in the parts and functions of animal and vegetables. Based on the analogies of the argument, for Paley, the order in nature requires a planner mind. This is obvious and familiar to our minds.[206] Design is manifested in the organizations of nature but it can not be equally understood in nature because "God prescribes some limits for nature and its members and thereby He exhibits demonstrations of wisdom".[207]

One can say that design is a matter of high intention of a supreme mind which produces all the effects, use and actions of natural entities. Thus, there is no distinction between a watch and a plant since they are both unconscious and their beings belong to a designer's intelligence.[208] Although Paley made a distinction between life forms of humans, animals and plants, this difference goes hand in hand with their producing activities as he explained: "The plant has no design in producing the seed, no comprehension of the nature or use of what it produces: the bird with respect to its egg, is not above the plant with respect to its seed."[209] At that point, what Paley emphasizes in his design argument is the general contrivance mechanism of nature. Paley argues that the observable and understandable composition of nature leaves no need to see the gardener in order to understand flowers of a garden. We do not think of a causal

[206] Paley, *Ibid,* p.34.

[207] *Ibid*, p.41.

[208] *Ibid*, p.51.

[209] *Ibid*, p.52.

relation between a garden and a gardener until observing a "highest" order.[210] In this relation some irregularities or imperfections might be found which are of little or no weight in the consideration of the existence of a Creator.[211]

For Paley, the mechanical arrangement in the human frame is the most complicated and most flexible machine that was ever contrived. The anatomy of human body (in three respects, bones, vessels and muscles) is an evident construction of the Artificer.[212] Paley analyzes the nodding of head, the working principles of fore-arm and the spine in his book. He underlines that the motions of the bones -without interfering each other- function in a perfect way. The *firmness* and *flexibilities* are the main characteristics of human body and this is made possible by a wonderful construction. Paley observes that the construction of the great number of bones in human frame join to one another and compact together. The moveable joints are formed to secure the vertebrate system. The patella (knee-pan) is another example in order to support his observation. For Paley, the patella does not have a similar mode of union comparing the rest of the joints of the body: "It is soft, or hardly formed, in infancy; and produced by an ossification."[213] Paley sees the mechanical structure of joints as both contrivance and contriving wisdom.[214] According to this methodology, he continues giving the examples of thigh bone, the ginglymus, the joints of the shoulder, etc. After multiple examples Paley argues that for the purpose of exciting admiration of Creator's works one clear instance is sufficient. By this reasoning we understand that he takes each of his illustrations as the evidence of an intelligent design. The

[210] *Ibid*, pp.54-55.

[211] *Ibid*, p.35.

[212] *Ibid*.,p.54.

[213] *Ibid*, p.62.

[214] *Ibid.*

configurations of the bones with the nerves, blood vessels and tendons and the functions of the gristles are all necessary to the life, for the true direction of motion. They are all considered as the contrived character of body.[215]

The variety of the motion of human body is a result of the existence of the muscles. The conformed use of bones and muscles present in various vertebrates and their processes are "exactly proportioned to the quantity of motion which the other bones allow of, and which the respective muscles are capable of producing."[216] I do not go into detail here. What we should know through Paley's examples about muscles is that the proportion of muscles and bones in a body and their power are evidence of perfect use of the organs. For instance, no human eyes can be thought without two mini muscles (eyelids). [217] Paley says that the capacities of the tongue as a composition of muscles should also be thought as the present samples of wonder.

Another system necessary in the animal bodies is the vessels. They are for the circulation of blood. The vessels of animal bodies present themselves in two ways: The disposition of the blood vessels (laying pipes) and secondly, the driving of the blood which is controlled by a construction of the engine at the centre of animal bodies: the heart. The blood vessels can be thought analogical to pipe system of a city. But Paley emphasizes that the blood vessel system has a superior feature: "there is another thing necessary to the blood which is not wanted for water; and that is, the carrying of it back again to its source." [218] After a detailed analysis of the

[215] *Ibid*, pp.66-67.

[216] *Ibid*, p.70.

[217] *Ibid*, p.73.

[218] *Ibid,* p.82.

functions of blood circulation system and the structure of the heart he underlines the significance of gastric juice in digestion of animal bodies.

As a result he considered animal bodies under three divisions: their bones, muscles and vessels. For Paley "the wisdom of the Creator is seen not in their separate but their collective action; in their mutual subserviency and dependence; in their contributing together one effect, and one use."[219] And a better understanding of the mechanism in animal bodies' results in being conceived of how all these come together in a state of activity with a designing intelligence. The following chapter of Paley's book, so-called "Of the Animal Structure Regarded as a Mass" emphasizes this account. The exact correspondence of the two sides of the same animal, the exact coordination of the opposite sides of an animal body shows that externally and internally there is a harmony. The perfect places of the organs are put together by an intelligent design as a package and they function properly.[220] This composition is more than to be just a functional mechanism, this form is also the subject of beauty.[221] The faculty of standing is another property regarding animal body as a mass. However, for Paley, there are "interrupted analogies" in the animal structure regarding mass. For instance all the bones are covered with a periosteum, except the teeth. These exceptions, for Paley, never force us to doubt about the existence of design since the designer knows the proper necessities of organs for the required actions. For Paley designer has the knowledge of all exceptions regarding the biological necessities of organisms. Paley adds other examples supporting designer's perfect design for the necessities of organisms: the nails of human and the structure of skull regarding the content of brain.[222] There is a distinction in

[219] *Ibid*, p.99.

[220] *Ibid*, pp.105-106.

[221] *Ibid*, p.107.

[222] *Ibid*.

the muscular coats of brain placed in the skull. These are not the inequalities of a perfect design. They all are instances of an intelligent process of design.[223]

Eventually, Paley sees the traces of design in the general plan and in the variations of the organs. The general plan proceeds according to the necessities in the nature of things. Its service to the different wants and uses, under different circumstances strengthens his argument. Thus, the 12th Chapter of *Natural Theology* is dedicated to "Comperative Anatomy". In this chapter, Paley presents several examples on the variety of organs in many different species. The coverings of different animals (their furs, feather) are illustrations of their perfectly designed pattern in accordance with their survival needs and environment. For instance,

> [I]n the small order of birds which winter with us, from a snipe downwards, let the external colour of the feathers be what it will, their Creator has universally given them a bed of black down next their bodies. Black, we know, is the warmest colour: and the purpose here is, to keep in the heat, arising from the heart and circulation of the blood.[224]

In comparing different animals, Paley says that their mouth, gullets, intestines are all in accordance with their needs. The bones of different animals are not the same. As Paley considers, as a result of the wisdom of an intelligent designing Creator the bones of birds are to fly and they have two qualities to enable them to fly: strength and lightness.[225] Likewise, all the birds are oviparous since their bodies' weight has to be light in order to fly.

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[223] *Ibid*, p.113.

[224] *Ibid*, p.118.

[225] *Ibid*, p.123.

Paley argues that "the care of the Creator is seen where it is wanted".[226] The peculiar organizations of the different bodies are evidences of the wisdom of an intelligent designing Creator: The fang of a viper, the bag of the opossum, the stomach of a camel, and the tongue of the wood-pecker are all results of a special mechanical contrivance.[227]

The contrivance of nature is not limited to the current necessities of bodies. Contrary to this temporality, as proof of design, Paley illustrates the prospective preparation of the bodies of animals for future. In other words, the contemplation of the future belongs only to intelligence and this can be observed in the bodies of animals. The organs of an infant show a progress parallel to his/her further necessities.[228] The milk of the female parent in all viviparous animals is regarded as an evident prospective contrivance by Paley.[229]

Then, we come to a very special concept of Paley's *Natural Theology*: *relationality*, the so-called *animal economy*. For Paley the economy of a body is an evidence for design.[230] To give an example we can think of the process of a food going from teeth to stomach's gastric juice. The teeth of animals are appropriate for their foods; their gastric juice is ready for the best digestion. The relations of the parts are successively employed. Paley defines this *relation* as follows;

> When several different parts contribute to one effect; or, which is the same thing, when an effect is produced by the joint action of different instruments; the fitness of such parts or instruments to one

[226] *Ibid*, p.129.

[227] See: *Ibid*. pp.131-134.

[228] *Ibid*., p.135.

[229] *Ibid*., p.136.

[230] The concept of economy was not generated by Paley. Thomas Burnet (1635-1715) who published *Sacred Theory of the Earth* (1681) is the first natural theologian who emphasized the concept of *economy* in nature as an evidence of design to prove a Deity. (Burnet, T. *Sacred Theory of the Earth*, Kinnersley, London, 1816.)

> another, for the purpose of producing, by their united action, the effect, is what I call relation: and wherever this is observed in the works of nature or of man, it appears to me to carry along with it decisive evidence of understanding, intention, art. [231]

This relation, of course, is more apparent between two different things or two different parts of a similar thing. As Paley argues, the relation between a lock and a key is clearer than the relation between two keys. To put it another way, "a bow was designed for an arrow, and an arrow for a bow; and the design is more evident for their being separate implements."[232] And through this definition of relation we come to a very critical explanation of Paley:

> Nor do the works of the Deity want this clearest species for relation. The *sexes* are manifestly made for each other. They form the grand relation of animated nature; universal, organic, mechanical; subsisting, like the clearest relations of art, in different individuals, unequivocal, inexplicable without design: So much so, that, were every other proof of contrivance in nature dubious or obscure, this alone would be sufficient.[233]

For Paley it is clear that there are two types of relations in nature: General relations are about the parts of which all animals in large classes and numbers have. On the other hand, particular relations are about the one or more parts of a certain species of animals.[234] To illustrate, the web foot of a swan, the legs and teeth of a mole are made for their necessities for survival: "the feet of the mole are made for digging, the neck, nose, eyes, ears and skins, are peculiarly adapted to an underground life".[235] And this is what Paley calls relation.

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[231] Paley, *Ibid*, p.140.

[232] *Ibid*, pp.143-144.

[233] *Ibid*, p.144.

[234] *Ibid.*

[235] *Ibid*, p.146.

The philosophical concern here arises as to which type of relation may give proper evidence for the existence of intelligent design. Although particular relations take more place then general relations in the illustrations of *Natural Theology* I think Paley does not choose between the general and particular relations. Deity shows itself in both relations. The term *compensation* that is argued in the 16th Chapter of the *Natural Theology* may be illuminative: The compensation is the case "when the defects of one part, or one organ, are supplied by the structure of another part, or of another organ".[236] The compensation refers to the balance of the two types of relation. Paley illustrates this as follows: "The necessity of an elephant's proboscis arises from the shortness of his neck; the shortness of the neck is rendered necessary by the weight of the head."[237] Hence, the intelligent design organizes the particular and general relations in consistent with one another.

Another key concept that is used by Paley in order to show the perfectness of designed nature is proportion:

> Throughout the universe there is a wonderful proportioning of one thing to another. The size of animals, of the human animal especially, when considered with respect to other animals, or to the plants which grow around him, is such, as a regard to his conveniency would have pointed out.[238]

Additionally Paley thinks the wonderful proportion of the universe presents itself in the suitableness of the earth and the sea to their several habitants. The appointed residences of the species are in accordance with their properties.[239] Paley finds a proportion between sleep and night. Night brings silence and dark which are the appropriate sleeping conditions for

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[236] *Ibid*, p.147.

[237] *Ibid*.

[238] *Ibid*, p.156.

[239] *Ibid*, pp.156-157.

the animal.[240] These instances can all be considered as the general designed structure of the universe in relation.

Paley keeps on investigating the evidences of design in instincts, insects, plants and elements. He rather briefly summarizes his points: He accepts that designed mechanism is more evident in animals than plants. However, after the chapters that he tried to show how instincts and insects had such a motive in the mind of the Creator in their very special and particular surviving adventure[241], he attempts to examine the perfection of the seed. For Paley the design of the seed is based on the preserving of it until it becomes perfected.[242] Likewise, the poppy is a good example of this process. According to Paley this relation teaches us that design is single but the means are diversified. The enumerated species are all employed in prosecuting the same intention. And in all cases "the purpose of designer traits within a just and limited degree: We can perceive that if the seeds of plants were more strongly guarded than they are, their greater security would interfere with other uses."[243]

In the 22nd Chapter of *Natural Theology* called *Astronomy*, Paley argues that Astronomy is far from being a proof for the agency of an intelligent Creator but beyond all sciences, it is a good medium to illustrate the magnificence of his operations.[244] We see that the explanations of Paley up to this chapter are based on the design deduced from relation, aptitude and correspondence of parts, or complexities of organisms. However, for Paley, the forms of celestial bodies are the objects of motion and could not be argued in the same way. According to this, astronomy

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[240] *Ibid*., p.157.

[241] See: *Ibid*, pp.160-182.

[242] *Ibid*, p.183.

[243] *Ibid*, p.186.

[244] *Ibid*, p.199.

rather gives some idea about the fixed and proper characteristics of the designed universe. For Paley, these are the fixed place of the source of light and heat in the centre of the system, the axis of rotation, the figures of the planetary orbits, and the rightness of velocity and the direction of motions, the proper distances of the celestial bodies.

3.2.3. Paley on the Personality of the Deity:

William Paley devoted the last chapters of his *Natural Theology* to the personality of the Deity.[245] We should keep in mind that the title of his book is *Natural Theology* and these chapters are the outcome of a pure theology rather than establishing arguments for design. The second part of Paley's book signifies why his argument is an argument *to* design. For Paley, theological characteristics of design are also the arguments for the existence of a designer. He does not disconnect these two and introduces the designed structure of the universe as an evidence for the personality of a designer. Briefly, for him, if there is a design, there should be a designer. A design without a designer is impossible. Thus, Paley's argument is an argument to design which establishes a proof for the existence of a designer. It seems here that Paley's argument to design renders the attributes of Christian God defendable through the concept of design. Argument from design is not necessarily resulted in emphasizing the agency of a designer. However, in Paley's *Natural Theology,* the agency of designer is supported by the samples collected from nature. Moreover, designer should have a personality. Although realizing this aim of the author does not pose a problem, considering this point results in weakening the power of his explanations and arguments. As Schneider

[245] See: *Natural Theology*, pp. 212-276.The titles of these chapters are as follows: Chapter XXIII: Of the Personality of The Deity, Chapter XXIV: Of the Natural Attributes of the Deity, Chapter XXV: The Unity of the Deity, Chapter XXVI: The Goodness of The Deity. 'Deity' and 'the Deity' have different meanings in terms of Paleyan terminology and natural theology. 'Deity' usually infers the nature of God. 'The Deity' infers God himself.

notes, “if the naturalist is in danger of objectifying the world, the theologian is in danger of subjectifying God.”[246] I think it is obvious that “the personality of the Deity” is the weakest point of Paley’s argument because Paley does not make a distinction between faith and knowledge of nature here. Remembering the objections of Hume and Kant, those theology motivated chapters of Paley render his epistemological attitude incomprehensible. Argument to design of Paley is reasonable without emphasizing the personality of Deity. I think there is no philosophical necessity to prove the “personality” of God in order to explain contrivance. Paley’s explanation of the personality of the Deity results in proving the existence of the Christian God, not the design especially in the last chapters of Paley. If these chapters were omitted, we would have been discussing the power of his method and argument.

From the perspective of natural theology the question of the existence of the Deity is quite relevant to what attributes of the Deity can be warranted by natural evidence. Before going into detail of Paley’s explanation, I should briefly introduce this relevance. John Stuart Mill is the one who considers the problem and discusses the significance of this relevance in his book *Theism*, in 1875. For Mill, design means contrivance, and contrivance is the adaptation of means to ends.[247] This definition is parallel to Paley. However, for Mill every indication of design in cosmos is not necessarily evidence for the intelligence of designer. He notes the efficacy of means to a determined and intelligently planned end can show the wisdom of a designer.[248] In other words, Mill prefers to define the intelligent designer as the one whose “creative hand” skillfully arranges the matter and force, because He is the Benevolent and Omnipotent

[246] Schneider, H.W., “Natural Thought and World of Religion”, *The Journal of Philosophy*, Vol.48, No:3, 1951, p.67.

[247] Mill, J. S., *Theism*, (ed) R.Taylor, The Bobbs-Merrill Co., Indianapolis, 1957, p.33.

[248] *Ibid.*

Creator.[249] Mill thinks this unique arrangement of the designer gives us wonder and excitement.[250] However, Mill concludes that for the purposes of natural theology there is no ground for attributing intelligence or personality to the obstacles which are partially carrying the limitless power of the designer in their limited bodies.[251] Then, I should ask why Paley prefers to establish a connection between the Deity and object world through attributes after all. He makes an inference that instead of the creating activity of Christian God, the intelligence of designer must be emphasized.

My main assumption here is that "the attributes of God"[252] are the premises of Paley. Purpose, beauty, wisdom, order, etc. are the explanatory concepts of Paley's argument. The chapters devoted to the personality of the Deity presents the central epistemological claims of Paley. Therefore, the attributes of the Deity has significance for a proper analysis. Contrary to Mill's conditions, Paley does not emphasize the creating activity; rather Paley holds the idea that c*ontrivance* is the key to understand the Deity and to accept the existence of an intelligent designer, namely God. As contrivance requires great ability, consciousness and thought; it has to constitute a personality. In other words, Paley thinks that contrivance can prove the personality of the Deity without any need of

[249] I*bid*, p.34.

[250] *Ibid.*

[251] Ibid, p.39.

[252] The religious affirmation of nature according to Christianity must have the basic claims which are also the main elements of God: "For Christian, God, as the power of making intelligibility, beauty and righteousness, may be said to explain the universe in that he gives it meaning and intelligibility, provides purpose and significance… everything in the world has a place in an overall pattern which, in its general design, is valuable in itself… there is a rational pattern and purpse in the universe, that is not just a chance collection of random events. To explain the world theologically is to interpret it in terms of a moral purposiveness; and God is the ground of value and of an ultimately purposive causal intelligibility." (Ward, *Ibid,* pp.148-149.)

other proofs.[253] What is the Deity then? Is the Deity just a contriver or more? For Paley, it has more in his Divine nature: the Deity has privileged qualifications and has superior principles. The intelligence of the Deity makes him the governor of nature because He owns all *possible* intentions of nature. Nature is an expression of his existence as an intelligent designer. The efficient character of a Designer as a personal agent is to perceive the end or purpose and holding the power of directing proper means to a purpose. According to Paley, "the acts of a mind prove the existence of a mind: and in whatever a mind resides is a person. The seat of intellect is a person."[254] In Paley's consideration the capacity/intelligence of a designer necessitates a mind and the acts of a mind prove the existence of a mind, and the mind only resides in a person. But we do not observe the Deity directly or able to perceive through our senses. How can we believe the existence of such personality? Paley sees this well-known objection makes a trouble, and suggests comparing His unlimited personality against limited animal senses. For Paley, our senses are limited; so that even the highest rational capacities of us and our limited sensations can not be compatible with the knowledge of truth.[255] For instance we may know the gravitation only by its effects. As such great energies of nature, the Deity is known to our limited senses only by its effects. The Deity is capable of the creation activity. This activity is *power* of the contrivance of nature. Nothing is self-created; nothing can be excluded from his plan.[256] The essential merit presents itself in His creative activity. The contrivance is the *intelligence* of the Deity. According to Paley intelligence is a power that comes to light through the relations of

[253] Paley, *Ibid*, p.213

[254] *Ibid*.

[255] *Ibid*, p.214.

[256] *Ibid*, p.215.

properties such as relation to an end, relation of parts to others, and to a common purpose.[257]

For Paley, as being the members of humankind we have a common sense, a capacity of forming ideas from our experiences and knowing things sometimes directly, sometimes by analogy.[258] If we come across something that we have never experienced before, in general, we figure it out through resemblances to things that we had already known. Upon this cognitive mechanism of men, we –should- conclude that "the works of nature proceed from intelligence and design, because, in the properties of relation to a purpose, subserviency to a use, they resemble what intelligence and design are constantly producing."[259]

Does the unlimited capacity of our knowledge result in accepting the personality of a Deity, or intelligence? In order to respond to this question Paley examines the relation between force and law in order to exalt the intelligence of the Deity. Paley underlines the misapplication of the term law: This term is used instead of power especially in physics and biology. In Paley's view, the law of nature describes the productions of organized bodies of nature which are pre-assigned by the intelligent designer. The efficient and operative cause(s) of any thing belongs to Him.[260] The term law implies "a power, for it is the order according to which that power acts."[261] "A law refers to us an agent."[262] Law also brings our minds the

[257] *Ibid*.

[258] The epistemology of natural theologians goes back to St. Thomas. They had such a principle that the knowledge of created things can be indirect and direct. The living things in relation can be understand indirectedly because of their being and our knowledge on them are not identical. However, through the sense of divine, we can know that God exists in nature. The analogy of natural theology should be understood "thinking in relation." (Kelly, B. *The Metaphysical Background of Analogy*, Blackfriars, 1958, pp.10-11.)

[259] *Ibid*, p.216.

[260] *Ibid*, pp.216-217.

[261] *Ibid*, p.217.

[262] *Ibid*, p.232.

term *mechanism*. Compared to the literal meaning of mechanism in Paley's framework, mechanism does not have self power as he states: "mechanism without power can do nothing."[263] This approach clarifies the content of his teleology. Recalling his watch analogy, he thinks that even if all parts of a watch are completed, it can not go without a force independent of its parts. He justifies this relation as follows:

> By inspecting watch… we get a proof of contrivance, and of a contriving mind, having been employed about it. In the form and obvious relation of its parts we see enough to convince us of this. If we pull the works in pieces, for the purpose of a closer examination, we are still more fully convinced. But, when we see the watch *going*, we see proof of another point, viz. that there is a power somewhere and somehow or other, applied to it; a power in action… there is a force and energy, as well as mechanism. [264]

So then, the watch in motion determines two main conclusions about the personality of the Deity: First, Deity uses contrivance and design in terms of forming, arranging of its parts. Secondly, there is an acting force (or power) distinct from its mechanism.[265] The law-mechanism connection becomes clearer when we consider Paley's understanding of causality. Paley and his contemporaries make a distinction between first and second causes. According to their conceptualization, the first cause is God; the second causes are the forces or laws of nature through which God manifests his power.[266] As a matter of fact, the relation between the law and mechanism results in that there are more in nature than we –can- perceive. There must be intelligence somewhere amongst the things. The

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[263] *Ibid*.p.217.

[264] *Ibid*.

[265] *Ibid*, pp.217-218.

[266] Secondary causes are not completely observable according to this period's thinkers. This is also called *a principle of order* by the early period of Paley's time. Paley also used these concepts interchangeably. There was a variety of conceptions of natural order and what natural is. The concept of nature of that time was wider and covering large classifications of organic systems. See: *Ibid*, "Explanatory Notes", pp.294, 334-335.

principles of men's mind are fond of simplicity and not capable of detecting the whole intelligence.[267] For Paley, mankind tends to unify the variety and complexity under one name, or concept, or theme. *Generation* is such a concept and furthermore considered as a principle. However, he claims to express generation as a *process*. This process realizes through the second causes. And the processes of nature as second causes belong to the first cause, namely God and His intelligence.[268] To illustrate; "a butterfly, with a proboscis instead of a mouth with four wings and six legs, produces a hairy caterpillar, with jaws and teeth, and fourteen feet."[269] All this is more than a principle and a good illustration of a designing process. The process of nature can not be reduced to a principle of mechanism in such a nature

> …that the property of animated bodies of producing their like, belongs to them, not as a primordial property, not by any blind necessity in the nature of things, but as the effect of economy, wisdom and design; because the property itself, assumes diversities, and submits to deviations, dictated by intelligible utilities, and serving distinct purposes of animal happiness.[270]

The picture of nature in the Paleyan design argument, then, comes to such a point that the intelligence of the designer has a great personality of managing the process of nature for the sake of happiness. This purposefulness of nature is not blind and generating is not free from the intelligent designing plan. As Paley considers; "[t]he marks of design are too strong to be got over. Design must have has a designer. That designer must have been a person. That person is God".[271] This is the golden rule of Paley through the argument and he answers some naturalist objections to

[267] *Ibid*, p.219.

[268] *Ibid*.

[269] *Ibid*., p.220.

[270] *Ibid*.

[271] *Ibid*, p.229.

the generation according to this principle. Paley rejects to evaluate the complexity of organization in nature as a gradual process that means bringing the parts of the organisms into appropriate forms and moreover distinguishing into their several kinds (species) by the same process. The camel's bunch and a pelican's pouch are good examples of it.[272] In his point of view considering these out of the creating activity of the Deity may be contradicted by many phenomena. For Paley the organs of animals can not explain their origin because we do not have such an account.[273] This claim is very important to understand Paley between Hume and Darwin. On the one hand Paley emphasizes the senses and natural data in order to show that there is design and intelligence, on the other hand he considers the senses as incapable tools of knowing the truth of nature. This corresponds to the Hume's main objection to natural theology that we considered in earlier chapters.

The problem of generation of different species can not be comprehensible for Paley. Paley says we are not able to think a camel without a bunch or a pelican without pouch.[274] Paley's biological account is so limited that he declares the plants' world is far from giving traces of intelligence either.[275] Then, after Darwin, is Paley's limited account still be convincing?

Accurately, as he himself confesses, Paley's account prefers to explain nature through the natural attributes of the Deity; namely "omnipotence, omniscience, omnipresence, eternity, self-existence, necessary existence, spirituality."[276] The unity and the goodness of the

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[272] *Ibid,* p.228.

[273] *Ibid.*

[274] *Ibid*, pp.226-228.

[275] *Ibid*, p.229.

[276] *Ibid*, p.231. The explanation of these attributes is not our core topic. Truly speaking in this chapter, Paley's explanations of the terms in his *Natural Theology* are all Bible-

Deity are in question for our investigation. Hence, Paley's concept of nature is a created unified nature for the happiness of the animate (for animals and men) world.

According to Paley, the proof of the unity of the Deity is the *uniformity* of observable plan in the universe.[277] The universe is such a system that each part depends upon other parts and by some common law or by a common substance. All parts of the system work in accordance with the same rule.[278] The inspection and comparison of the living forms, for Paley, serves the same deduction: There is a great number of varieties in the animal world and the structures of the terrestrial animals are alike.[279] Although there are different classes of animals ("under wonderful varieties, and adaptations to forms" [280]) they all carry the traces of the same plan. We probably think this statement leads to a contradiction for Paley: Paley observes the great variety of nature and considers this variety as a product of an intelligent plan. However, under this great variety he hesitates to think that the resemblances between living things and their organs indicate to a common generation. For instance, as he defines, the bone is a common characteristic part of animal world.[281] But he wants to keep generating/creating world principle: "the same creation, and the same Creator".[282] Under such a creationist point of view the resemblances referring to a creator imply no more than the uniformity of nature.

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dependent. He makes quotations from Bishop Wilkin's –who is one of the founders of the Royal Society- *Principles of Natural Theology* (1675).

[277] *Ibid*, p.234.

[278] *Ibid*.

[279] *Ibid*, p.235.

[280] *Ibid*, p.236.

[281] See: *Ibid*. p. 236.

[282] He does not say "Creator*s*!" Some critics of the argument from design of Paley assumed that his *Natural Theology* did not refer to one Designer. Paley's argument does

The goodness of the Deity is another critical examination of Paley. The goodness of the universe is one of the main objections of the atheists against the argument from design and theism in general. If the universe is full of goodness and pleasure then why do all tragedies still go on? This problem is known as problem the problem of evil. For Paley, the proof of the divine goodness of the Deity stems from two points: the beneficial structure of His design and the animal sensations of pleasure.[283] The benevolence of the Deity is one of the attributes of him stated in religious texts. Paley explains his benevolence in terms of life. Following this recognition, Paley says "dead matter is nothing."[284] The instruments (parts/organs) of a living organism do not mean anything without life. Thus life on its own is the sample of His benevolence. Paley analyzes the second principle, namely pleasure. Through pages, he tells us about the universe like a romantic writer full of happiness.[285] He claims that care and responsibility for life are observable and the foundational elements of diversified enjoyments of animal world. The pleasure of life is a matter of ethics for Paley. Our choices, wishes and expectations about life determine our sensational position in our life span. Pleasure and happiness are the objects of the contrivance of the Deity.[286] The existence of our designed world is a world of well adaptation. For instance we can not say deserts are mysterious because there is life there adapted to its conditions. "There is a nature there appropriated to the situation."[287] The conditions of a desert

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not refer to many creators. He emphasizes one intelligent designer. It should always be remembered the personality of designer of Paley is under a strict influence of Christianity. (*Ibid*, p.235.)

[283] *Ibid*, p.237.

[284] *Ibid*.

[285] *Ibid*, pp.238-241.

[286] *Ibid,* p.243.

[287] *Ibid*, p.245.

(such as climate, temperature…) become their habitation.[288] And "in almost all cases nature produces her supplies with profusion."[289] Paley dismisses the most of the misery and unbalanced spread of men as the problem of economics. If the globe is the resident of mankind, then we have to learn where to live and how to be happy.[290] The Designer does not prefer ending life in the world. He gives numerous chances to living organisms. His contrivance is made for continuing and this principle of nature supports the benevolence of the Deity. As Paley says, "Her species never fail."[291] Paley examines the animal properties and concludes that the capacities of animals which are established according to the course of nature support or preserve an animal.[292] This organization may prove the existence of a Deity but not an evidence for His benevolence. Paley's case in point may make it clear: The eating of an animal is a necessity but the feeling of eating; and the pleasure coming up at the end of the fulfillment of this appetite is another thing.[293] "The vitiation of taste" is the conclusion of "a felicitous adaptation of the organ to the object".[294] For Paley this principle can be applied to hearing, smelling or other sensations. There are more than the necessary purposes of hearing, of smell, of vision. And not these known five senses are the only vehicles of enjoyment, we have many *internal sensations* and these are also the objects of pleasure.[295]

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[288] *Ibid*.

[289] *Ibid*, p.247.

[290] *Ibid*, p.248.

[291] *Ibid*, p.249.

[292] *Ibid*, p.250.

[293] *Ibid*, p.251

[294] *Ibid*.

[295] *Ibid*, pp.253-254.

Besides these we may still assume that there are many imperfections in the world such as pain, miseries, diseases, disasters, etc., and they are the objects of unintelligent design. This objection is not considered as valid by Paley since he sees design as equally located at all the corners of the world.[296] Even mortal diseases show the value of life and the equalization of the Deity. And death itself is a mode of whole order of animal world.[297]

Lastly, it is time to deal with Paley's approach to the *chance* factor in terms of the personality of the Deity. If there is such an omnipotent, omniscient and omnipresent designer, does it mean that there would be no chance in our lives? According to Paley, it does not. He deals with the chance factor in three steps: First, he points out "there must be *chance* in the midst of design: by which we mean, that events which are not designed, necessarily arise from the pursuit of events which are designed."[298] According to his example, a man travelling to York can meet another man travelling to London which is by chance and accidental. This meeting could be called *intelligible*, and realized under the conditions of *necessity* only if the meeting was pre-planned and a product of organized actions of both men.[299] However, secondly, "the appearance of chance will always bear a proportion to the ignorance of the observer."[300] That means these two men can not fully comprehend what sort of objects, conditions and purposes may fit to the situation. The inadequateness of our information about the unlimited conditions occur the unexpected situations.

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[296] *Ibid*, p.262.

[297] *Ibid*, p.259.

[298] *Ibid*, p.265.

[299] *Ibid*.

[300] *Ibid*, p.266.

Whenever there is an appearance of chance, there is a lack of knowledge of the observer, but not the Deity.[301]

This conclusion of Paley seems as if it made free will impossible. He underlines the concept of *certainty*. He separates the human will and the will of the Deity. For him, while human will is uncertain, the will of the Deity is certain. Sudden deaths are the example of this distinction. They occur without the necessary conditions of human affairs and "conduces to the purposes of admonition".[302]

As a conclusion, philosophical power of Paley's *Natural Theology* dramatically decreases in the last chapters of his book because of the fact that they are dedicated to make a compulsory connection between design and the well-known Christian picture of Deity. The designed universe is considered as an object of the moral attitude of man by Paley and the operation in nature becomes the matter of God and evidences of his attributes. The free will is destroyed; the cognitive capacity and the possibilities of men are restricted for the sake of the intelligence of the Deity. Truly speaking, this intelligence is possible for Paley whenever there is no intelligence in living subjects. This heavily theological and dogmatic approach hits the highest level in the conclusion chapter of the book. He leaves nature to the contemplation and meditation and sees nature as Divine: "The works of nature want only to be contemplated."[303]

William Paley's argument from design is an *argument* if these parts of his book are omitted. If these parts are taken into consideration, it is a "theology" but not "natural" one compared to our contemporary concepts of natural science. He tries to show how this universe is determined. This strict determination does not refer to the intelligence of the Deity but his

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[301] *Ibid*.

[302] *Ibid,* p.267.

[303] *Ibid*, p.279.

absoluteness. If there is an absolute, there might be no design that may surprise us by means of its intelligence.

Hartshone's comments support my claim because he notes that natural theology failed to express the appropriate definition of deity. It was an inappropriate definition because it resulted in antinomies and was irrelevant to the intuitive ground idea of a God. For Hartshone, the distinction between a priori ontological and a posteriori cosmological arguments for the existence of God is problematic either. This is an unclear and erroneous distinction.[304] Hartshorne argues that natural theology as a posteriori cosmological arguments have to be beyond experimental; however it does not remain in an empirical sphere since "God's essential uniqueness must be purely conceptual".[305] The trait of the individuality of God rejects an empirical testing. There is no testable area for the theistic arguments. On the other hand the divine interaction is to be strictly universal because He is individual with strictly universal functions. This unsurpassable mode of knowledge is only available and possible for God. In such a case, there can not be an empirical evidence for the divine existence but can be conceptual one: "Mere 'existing deity', without further information, is indeed in a sense an empty concept."[306] What does it mean? There is a difference between accepting God as a concept and as an idol. Our definitions of deity always have to remain incomplete according to his concept. This does not mean an abstractionism but rather implies the nature of Deity. The metaphysical abstraction of God is not quite the same thing and has not quite the same presuppositions as "abstraction" in the use of a modern philosopher.

To conclude, the personality of the designer is the challenge of design arguments. Therefore, it seems a need for deeper analysis of

[304] Hartshorne, C., *A Natural Theology for our time*, La Salle, 3rd Open Court, 1967, p.69.

[305] There are many attributes of God such as absolute, independent, uncaused cause…. Some religious interpretations supposed that God's uniqueness must be positive.

[306] *Ibid*, p.77.

terminology and the metaphysics of design. Next sections will realize this philosophical investigation.

3.3. Remarks on Paley's Method

The design argument as the argument from marks of design in nature serves two main goals: establishing a warranted belief in God and knowledge of His attributes through the order and purpose of nature; and making a best explanation of natural phenomena by using the attributes of the Deity, such as purposefulness, order, beauty and wisdom or intelligence. The first type of the argument is called the argument from design, and the other the argument to design. Therefore, in both arguments, the *special* character of nature is under investigation. The main subject here is whether or not the particular instances of natural circumstances are really a part of intelligence. Then the problem of natural theology, in general, becomes a problem of methodology of using concepts.

In this part of this dissertation, I try to discuss whether Paley's *Natural Theology* is a better version of explaining the design argument or fails to demonstrate a new scope after the Humean objection.

The earlier forms of argument from design are criticized by Hume in his *Dialogues*. For Hume, even when we allow the idea that there is a designer we are not able to say that this is God. The objections to design argument result from shifting scientific terms to the theological area. What is the role of Paley's argument to design for constructing a legitimate scientific inquiry in spite of the criticisms?

In order to present a legitimate argument, Paley's main goal must be a probable and acceptable case rather than being merely a reasonable argument. First, Paley had to by-pass the main dilemma of natural theology:

> Natural theology can take us so far and no further. Evidence of design gives us a designer but not yet "God" in the sense of the creator of all things visible and invisible, infinite in goodness, wisdom and power… In the argument from design we have a pointer toward God, not a proof for God. [307]

Next, he had to make a better explanation than the previous arguments from design which provide just a governing principle or causality.

Thirdly, Paley's argument should be more than an analogy. As I discussed in previous section, Sober suggested that Paley's explanations as IBE could save him from Humean objection.

As I have analyzed above, Paley's *Natural Theology* has three major parts: proof for the existence of the designer (watchmaker and telescope analogies), presentation of what is to be designed and the necessary intelligence of designer (detailed explanation of mechanical parts of the living bodies), and the demonstration of the attributes of the Deity (theological chapters). Paley's strategy is shaped by the following notions:

1- *The ignorance for the unknown artist*: For Paley, an unseen or unknown artist does not diminish the value of her/his product. It does not raise any objection or hesitation against the existence of the artist. Even if we do not see the artist, we undoubtedly know that an artifact is a result of a capable artist. For Paley, our lack of knowledge about God does not make any difference because the argument reveals the complexity of the world.

2- *Unnecessary perfection*: It is not necessary for a machine to be perfect in order to show that it was designed. A machine's purpose, design, and its designer are still evident whether it malfunctions or disfunctions. This is a crucial point for answering the objections. There are many

[307] Winters A.C., "The Argument from Design: What is at stake Theologically?", *Zygon*, Vol.35, No:1, 2000, p.79.

instances of imperfections in nature. For Paley, the less perfect world is a result of the bad choices of the created ones not the creator.

3- *Understandability of usefulness*: Some parts of complex designed objects are very useful and do affect the function of their mechanism. Here, Paley emphasizes every components of the designed universe. The intelligence of the designer and designed process can be understood through the useful and functional parts of living organisms. This idea is also developed by Michael Behe later. In *Darwin's Black Box* Behe exemplifies the systems that are called *irreducible complexity.* However, I think here Paley emphasizes another point: The understandability of design is as important as to experience them. In other words, sensing is not sufficient to conclude that there is a design. The observer has to have a recognizing power in order to understand the hierarchy between natural object and a unique design. Unfortunately these points are not discussed in detail in Paley's book.

4- *Internal configuration*: When a man sees a watch, in his senses he accepts it as one of the possible combinations of the designed structure. In other words, an internal integration can be grasped as a sensual acceptance without any rationalization or derivation. For Paley, this shows the different structure of this combined and designed intelligent mechanism. Thus there is a difference between a stone and a watch.

5- *The principle of order as a feature of Intelligence*: Here we come to the concept of order in Paley where he should be read very carefully. Paley does not use the term, 'order' as we tend to use it in daily language. Philosophers use 'order' against 'chaos'. For Paley, order is the appearance of intelligence in nature. The parts of a watch situate in their own and correct and proper places in order to realize their purposes and functions. Therefore for Paley, there is not an internal teleological mechanism but an external purposefulness. The principle of order can not be conceivable apart from the intelligence of designer.

6- *Contrivance*: The mechanism of a watch is the evidence of a watchmaker. The mechanism of the watch is not alone the *proof* of a designer. The main argument is this; beyond the mechanism there lies a complex and functionally working purposeful structure, and our minds grasp these designed structures and intelligent function. Laws of nature are considered as the descriptions of natural operations by Paley. By that he tries to deduce the necessity of an operator. On the other hand, he does not make a clear distinction between lawful and lawless. This lack of knowledge results in suspect about recognizing the work of a designer. I mean the observer who is in nature does not get an obvious definition about the laws (or the nature of the operations of intelligent designer) in order to establish a general knowledge of what design is.

7- *Divine Agency*: Similar to the argument for contrivance, Paley's main concern is to indicate an inevitable evidence for an Agent. In his framework, design requires a designer and this designer has to be intelligent and an agent. Then, the law of nature is meaningful because of an existing Agent. I consider this relevance as a result of the theological application of his argument. The proof for the existence of a designer does not necessarily demonstrate that this designer must be the Christian God. That is why the last chapters of the book are dedicated to attributes of the Deity.

8- *Knowable matter*: As a result, Paley underlines the importance of human-nature relationship. According to him, man can know, understand and interpret the universe. This link is the guarantee of the existence of designer since the products of his designing activity are all knowable matters for the members of mankind. We should keep in mind that Paley is an empiricist. His argument is based on the trustworthiness of sense experience. He avoids ideas and judgments based on revelation.

Those distinguished features of Paleyan argument are not sufficient to employ his argument in a scientific discourse. They are mostly relevant to the relation between knowledge and belief which is criticized mainly by

Hume and Kant. Therefore, I claim that Paley cannot demonstrate to the atheists that there *is* God. I think he combines the empirical facts with rational arguments (and theological premises) not to make *knowledge* of intelligent designer possible, but to make *belief* in God defensible. Thus the argument of Paley should be discussed by reconsidering the relation between knowledge and belief. I think Vidal and Kleeberg appropriately summarize this connection as such:

> It would seem that knowledge requires belief, but that belief, in contrast does not necessitate knowledge. Belief… stand[s] on the side of subjectivity, opinion, and faith; knowledge on the side of subjectivity, proof and science. [308]

It is clear that Paley made contributions to the knowledge of design. Many concepts of natural theology is brought to philosophical field, such as order, design, intention, purpose, agency, artifacts, complexity, contrivance, etc.. The current debates on ID confirm that design becomes a hot topic in both science and philosophy.

Throughout *Natural Theology*, Paley uses the functions of living organisms as evidence for the existence of a higher mind and he concludes that the principle of order in nature signifies the mind of the creator. He infers that the existence of God as designer is the best explanation of the designed nature. To remember, while introducing the characteristic of natural theology, I said that "the best explanation" was differently understood by natural theologians. For their perspective there is not a "best explanation" regarding revelation as the genuine source. Then, for Paley's argument "there is no necessary...connection between the claim that religious belief and practice must have 'sufficient evidence' to be held rationally or legitimately…"[309]

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[308] Vidal, F., Kleeberg,B., "Introduction: Knowledge, Belief, and the Impulse to Natural Theology, *Science in Context*, 20(3), 2007, p.383.

[309] Sweet, *Ibid*, p.152.

But I should ask that Paley adds any evidence(s) whether for proving that God exists or God is indispensable just because of telling the adaptive power of living things according to divine agent.

If the power of an explanation is very relevant to its predictive power, can we say that the argument to design is a better explanation of nature than argument from design? This is a fact that theistic arguments rely upon some connection between God and the world. The validity of an argument is a purely formal characteristic of the relation between true premises and true conclusion. But it can not guarantee that the conclusion is true, especially the object of the argument has a metaphysical content. The difficulty lies in the description of the argument from design whose explanation includes a claim of a supernatural unobserved "power" (creation) or "ability of design" (designing process) in order to explain "natural regularity" as a product of a Deity. As mentioned above, the natural theology is based on the Thomist tradition and the central function of natural theology is to consider the statements of faith in the field of knowledge. Thus, the explanation of the argument from design is a tool for producing valid arguments from self-evident premises. The epistemic status of the self-evident premises of natural theology is in question. The argument claims to make us or someone else know that God exists as a conclusion. Do the explanations of natural theology perform such a function? If so, we should ask what sorts of explanation and argument are used. The philosophical analysis of these would give the special structure of the argument from design distinguishing it from other proofs of God.

This idea leads to justifying the theistic belief. As we mentioned in previous sections, many philosophers held that we have no right to believe in the existence of God through justification. Besides, some philosophers noted that there is no such an intellectual obligation to believe without evidence. I argue the function of natural theology is to be fulfilled by the wider explanation of the concept of *design* at least in the Paleyan form of the argument. In Paley's view the organs of organisms function properly

and they function in a particular way. The functions or purposes of organs are just according to the plan of a designer. And this designer must have a technical mind because this proper functioning of organs fulfill their missions in the best way comparing many possible ways. Here Paley uses the comparison with artifacts in order to justify his presupposition. Paley does not think that belief in God has a special characteristic comparing to sense perception, or memory, or warranted priori knowledge. Alvin Plantinga is one of the philosophers who offers a way to see that the premises of natural theology can be considered self-evident regarding the "intuitive warrant" as "the maximal epistemic status of reason".[310] Hence Plantinga sees nothing problematic about the premises of natural theology; he states that there is nothing wrong with faith and knowledge relation[311] that is mentioned above. However, Plantinga accepts that this warrant is not compatible with the high standards of philosophical inquiry. For him there are various degrees of epistemic warrant as deliverances of reason and the argument from design is one of them. It functions as the bridging tool between faith and science.[312]

It is said by Paley that his method is based on the observable characteristics of divine order. Excellence, intelligence and order are called design by Paley. His argument is an argument to design because he insists considering order and design identically. This approach is based on the necessity of justifying attributes of intelligent designer. According to these features of his argument to design I do not think Plantinga can move Paley in a safe position.

I argue that the main problem of Paley's epistemic warrant of the explanation of the argument to design is its relevance to ontological

[310] Plantinga, A., "The Prospects for Natural Theology", *Philosophical Perspectives*, Vol.5., 1991, p.289.

[311] *Ibid.*

[312] *Ibid.*

character of nature. So that the natural view of the argument from design is not merely a problem of epistemology. In the case of Paley's argument, the evidences are just for *conforming* to the belief in God and increasing the *degree* of belief. The rhetoric of Paley determines his scientific realm since "examples of design are praised" and "the inability to see the divine manifestations of nature" is the problem of disbelievers. [313]

As a result, the key concept for Paley, in order to separate the arguments from design, is his usage of "intelligence" in a theological framework, "design" in ontological way. The confusion arises from the usage of "intelligent" as an adjective.

In this case I think there is an alternative solution proposed by Lenartowics and Koszteyn. Briefly, they note that the intelligence of design is not suspicious whenever we understand intelligence as a "technical mind".[314] They claim that Paley's demonstration of design is not understandable unless the knowledge of a watch is obtained by the reader. They consider Paley's original thinking as the following analogy-based argument:[315]

(a) From the existence of a watch we can argue for the existence of a watchmaker,
(b) Some biological organs are similar (analogous) to a watch,
(c) So, from the existence of some biological organs we can argue for the existence of someone who is similar (analogous) to a watchmaker.

I think Lenartowics and Koszteyn present a new understanding for Paley's argument. In the previous chapter, I mentioned about Humean objection and Sober's solution based on IBE. In Lenartowics and

[313] Eddy, M.D., "The Rhetoric and Scicen of William Paley's Natural Theology", *Literature &Theology*, Vol 18, No:1, 2004, p.5.

[314] "Technical mind… is a mind, that knows the properties of materials, has a capacity to handle them and to impose on them the desired form." (Lenartowics et al, *Ibid*, p.58.)

[315] *Ibid*, p.55.

Koszteyn's model (b) is not a weak point for Paley since this analogy is based on *a fortiori* argument. For Lenartowics and Koszteyn, a fortiori argument might be represented by the following scheme:[316]

> P is more evidently R as Q is R, and
> Q is R evidently enough to be S, all the more
> P is R evidently enough to be S.

When I apply this scheme to the Paley's eye and telescope analogy:

> *Eye* is more evidently *designed* as *telescope is designed*, and
> *Telescope* is *designed* evidently enough to *see*, all the more
> *Eye* is designed evidently enough to *see*.

Even this syllogism does not give any explanation; Lenartowics and Koszteyn claim that *a fortiori* argumentations "provides a cognitive tool to defend the valuable achievements of common sense"[317] which is based on everyday realities. I think, this remark clarify the argumentation of Paley rather than strengthening his argument against Humean objection. Here, if "technical mind" is nothing more than approving a common sense between analogous contrivances, I think that the demonstration of "intelligence" of design has failed to be *justified* by Lenartowics and Koszteyn.

In the previous chapter, I mentioned Sober's assessment that Paley's argument is immune to the Humean objection because it can be nominated as IBE rather than as a basic analogical argument. Furthermore considering that Paley's watchmaker analogy and his biological samples are merely for helping the reader, Hume's criticism of analogy may lose its power. Thus in detecting the role of Paley's analogies and samples in argument to design we need another principle. For Sober, likelihood is a tool for deciding about the effectiveness of an explanation which is underdetermined by some missing information. That is to say, likelihood principle shows us the strength of the connection between premises

[316] *Ibid*, p.73.

[317] *Ibid,* p.74.

(hypotheses) and the target conclusion (the observation statement to be explained). [318]

Sober analyzes Paley's argument in terms of the "likelihood principle". I think the importance of likelihood principle should be considered by means of the claims of natural theology due to the fact that the evidential acceptance of Paley's argument is not applicable according to naturalistic scientific framework. In other words, there is no tool in our hands to investigate whether or not an elephant's trunk is long as a result of detailed planning of a benevolent intelligent designer who care for the happiness of his creatures. Sober calls this acceptance as "prudential acceptance"[319]. "Prudential acceptance", for Sober, "is driven by the costs and benefits that attach to the act of believing".[320] Sober adds that, "evidential acceptance … is driven by the bearing of evidence on the proposition believed."[321] Since for Sober, "the design argument is a claim about what we find in nature, not about the existence of nature as a whole"[322], likelihood principle seems to be applicable to design argument. That is true, design argument does not deal with the emergence of universe and the origin of the idea of God; it rather detects traces to show that this universe can not be so without designer. As Paley illustrates, design argument analyzes the complexities and functionality of organs in order to produce evidence for intelligent designer. Following Sober's claims, it is worth saying that evidential characteristic of design in the biological level was not mentioned by the pre-Paleyan philosophers' argument from design. They were rather interested in the cosmological

[318] Sober, *Ibid*, p.35.

[319] Sober, E., *Evidence and Evolution: The Logic Behind the Science*, Cambridge, 2008, p.6.

[320] *Ibid.*

[321] *Ibid.*

[322] *Ibid,* p.113.

explanations and/or ontological premises in order to provide logical evidence for the existence of designer. Thus it can be concluded that design arguments are based on prudential accepting. In this sense Sober "does not want to formulate the design argument as an argument that seeks to establish that the hypothesis of intelligent design has high probability."[323]That is to say, Sober maintains that the probability of design arguments and their likelihood refer to different things[324]: the highly adaptive features of complexities can increase the likelihood of intelligent design against the chance factor but it does not establish a high probability for the hypothesis of ID. Since we do not know the real intention of (intelligent designer) God, we can not reach such a conclusion that eye is the appropriate eye that had to be.[325] And the inductive sampling of ID is not far from previous knowledge and inferences[326]. Thus, for Sober, Paley restricts the evidential acceptance and likelihood of his argument since "the stone" does not have a role in the story.[327] Sober suggests that "model selection" can be a better way for comparing the likelihood of design and chance, and ID proponents must make a "model selection" through assessing new data pool which are independent from "prior probabilities". [328] However, for Sober, the likelihood of the design argument "does not seek to establish that an intelligent designer *must* exist, nor even that such a being probably exists."[329] That is relevant to the explanatory power of ID. Hence Sober underlines that intelligent design theory does not say

[323] *Ibid*, p.121.

[324] *Ibid*.

[325] *Ibid*., pp.146-147.

[326] *Ibid,* p.174.

[327] *Ibid*., p.147.

[328] *Ibid,* pp.178-181.

[329] *Ibid.,*p.122.

anything about the probability of ID but only about its likelihood. This is formulated as the following: Pr (O | ID) > Pr (O | Chance).[330]

As a result, following Sober's comments, design arguments as an inference to the best explanation can eliminate some Humean objections. However, as Sober says, the distinction between necessity and high probability "makes a huge difference for the argument's defensibility". Considering this claim, it is clear that ID proponents try to revise Paleyan argument which is heavily based on the necessity of intelligence of the designer.

[330] *Ibid.*

CHAPTER 4

AFTER PALEY: INTELLIGENT DESIGN

There can be a designing principle or natural law, yet it is not enough to suppose that there is a designer God. Inferences to design should not require that we have a candidate for the role of a designer. We see that, Neo-Paleyans follow this path. The classical arguments from design proposed to show theism is consistent with biological structure of nature and the method of biological sciences. Following Paley, ID theoriticians believe that all of the things and independent components were designed to achieve some end. But they do not say anything about the personality of the designer or its existence. Their intelligent design hypothesis emphasizes the designed structure of life in nature against Darwinian natural selection and gradualism. The hypotheses and arguments of special creation are different from the hypotheses for the argument from design.

4.1. Design Revisited

Throughout the history of the design arguments, design is used analogously with order. As I analyzed in the previous chapters, the usage of the term has philosophical implications. However, as I have illustrated, the concept of design undermines a necessary connection between intelligence and order. That is much more crucial to understand the goal of design arguments. Whenever they provide arguments about design, they presuppose the intelligent background of design. For that purpose, design is used as a category by natural theologians. Taking the category of design as synonymous with order is not an objective attitude. Design means a notion of teleology which is explicitly or inherently modified by an agent.

According to this reasoning, in this part of this dissertation, I shall examine the notion of *design.* This examination also gives us the fundamentals of the contemporary design argument: Intelligent Design. The advocates of Intelligent Design (ID) needs empirical criteria for identifying deliberately constructed products of intelligent agent activity. These criteria are necessary to make their explanations rationally, philosophically and scientifically legitimate. This is required because many critics of ID argue that "design theories are empirically empty, conceptually sterile, scientifically illegitimate, already historically refuted, and ultimately perhaps no more than cynically disguised religion."[331] Is this a credible criticism? I think understanding the usage of the notion of design which is deliberately used by ID followers might lead to produce some answers to this critical question. I may add more questions such as: is design just a metaphor for the design arguments? Is design a key concept used to explain natural processes?

Here I analyze whether Paley's notion of design has a special meaning more than concepts of order, function and artifacts or not.

Merritt Haden Moore's article "A Metaphysics of Design without Purpose" focuses on the relation between order and design. As a result of this condition our knowledge of nature becomes objective and independent of our minds.[332] In such an understanding of nature there is no need to go beyond the appearances. Moore's considers that if we can indicate the reasonableness and purposelessness of nature, then there will be no need for the existence of a designer either. Thus the category of design as a subjective judgment on nature is used as synonymously with order. Moore maintains the epistemological relation conducted by us between our minds and nature involves an order and does not result in the possible existence

[331] Ratzsch, D., *Nature, Design and Science: The Status of Design in Natural Science*, Albany: State Universtiy of New York Press, 2001, p.vii.

[332] Moore, M. H. "A Metaphysics of Design without Purpose", *Philosophy of Science*, Vol:3, No:1, 1936, p.3.

of an extranatural designer: “As far as knowledge is concerned, the only things that can affect natural reality are natural processes. We can not imagine any relation between natural and extranatural.”[333]

Thus the problem of design becomes a problem of naturalism. In their descriptions, ID proponents should convince us that the word design promises to describe nature without any reference to Deity. If they revisit Paleyan natural theology and revisit the external agency of the Deity, as Moore says, “it moves the problem back one step”:[334] The purposeful design makes the natural order as a condition of its own design. Additionally, it results in an infinite regress.[335] To accept the existence of an external designer never simplifies our cognitive processes and our understanding of nature. The order can not be thought as a result of an external teleology or product of a designing agent. For Moore, the order of nature has to be objective because nature, like every other system, must have a balance and mutual interaction of components in order to work properly. [336] And this does not necessarily mean nature has miracles. The only design in nature can be the balance of its components which is absolutely required for the sustainability of the system as a whole. If it did not have inner balance we would not understand nature.

Shortly, for Moore, the category of order and design are identical when they are considered without associating the idea with purpose or teleology. As a result, order and design is made equal to the relationships of parts to whole. The possibility of “the metaphysics of design without purpose” is related to knowledge. In this context, such terms as order, structure, and pattern are all analogous.

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[333] *Ibid*, p.6.

[334] *Ibid*..

[335] *Ibid*, pp.6-7.

[336] Ibid, pp.6-8.

I think Moore's analysis shows that considering order and design as identical, the intelligence of design will be a subject of theology. The ontological condition of the concept of design reveals the core idea of the argument from design which is based on the analogy between organisms and artifacts. If we reach to show the ontological difference between these two types of entity, we will be able to re-formulate the relation. And if we think about the functions of artifacts there seems no problem; it is in a sense natural, understandable and commonly acceptable. However, when we consider the functions of organism (or organic traits) it becomes problematic, incomprehensible, and indirectly understandable and the debate turns on a metaphorical dimension. To illustrate, there is no discussion about the primary function of a knife but there is vagueness about the function of an enzyme.

To remember, Paley especially notes some special samples of design in animal bodies. Thus, if we want to neutralize the term design we should also propose a new definition for function. Peter McLauglin made an analysis primarily based on the literal and metaphorical attribution of functions. Thus, he tries to distinguish between artifacts and natural entities according to the concept of functions. For him, we can not use the term function for artifacts because "artifacts have purposes but natural entities have functions".[337] For instance the main goal of an artifact is currently performing function of this thing i.e. the function of a knife is cutting. In fact, the cutting activity is the main *purpose* of a knife, not a function of it. As a knife-user I may attribute some functions to a knife or use it as a screwdriver, etc. I think, contrary to artifacts, the functions of natural entities are not immediately reducible to a purpose. An organ can have many –available- functions. Therefore, for McLauglin the difficulty of this

[337] McLauglin, Peter, (2001), *What Functions Explain?*, USA:Cambridge University Press, p.142.

problem stems from "different teleological approaches".[338] Then, I can infer that the teleology of an artifact is external and was *inserted* there by its designer agent at the beginning of its production process. I think what natural theologians consider is that: the agent determined the main purpose of some particular artifact in the beginning of the production process of the particular artifact is *raison d'être*. McLauglin notes that the purpose comes to reality whenever it is approved by another agent. Hence, we need *another agent* to accept the handiwork of a designer agent: The qualification and the goodness of an artifact realized when the artifact is used by another agent and this person gets the predefined (which is the purpose of this artifact) benefit. [339]

Overall, design is also used to indicate the origin of everything: "the rational function of contemporary creationism partitions the universe into three sets: the lawlike, the accidental, and the designed. Design is defined as the complement of the other two: It explains the origin of everything that is neither lawlike nor accidental."[340] McLauglin confirms that this application of the term presents a pre-Darwinian organic adaptation.[341] However, for today, in its everyday use, the term design is just applied to fabrication and defines a phenomenal order or purposiveness of artifacts. Thus, for McLauglin, to be designed can no longer be the name of an organic adaptation, at least in scientific framework after Darwinian explanation of functions.

I think, in the notion of intelligent design, the conceptual framework is different. Order and function, as I mentioned above, are not sufficient to show that design is a name for a quality without the existence of an

[338] For the details of these two different teleologies see: James Lennox, "Teleologies", *Keywords in Biology,* ed. E.F.Keller, E.Lloyd, pp.324-333.

[339] McLauglin, *Ibid*, p.143.

[340] *Ibid*.p.151.

[341] *Ibid.*

external purpose. Here Del Ratzsch's analysis of design is considerable in examining the meaning of design. Design is used for deliberately intended or produced pattern. Design implies designer, intention, and directly/indirectly the agent activity. Del Ratzsch analyzes this relation as follows: "While design refers to the intention-generated pattern, designed refers to the phenomenon (object, sequence, event, etc)- embodying that design". [342] On the other hand "*to be designed* is to exemplify a design which is synonymous with artificial and contrasts with natural." [343] According to him, traditional arguments from design become an argument from pattern to design. To be designed exemplifies special characteristics such as "adaptation, complexity, fine-tuning, improbability, evident purpose, analogy to human artifacts, and so on which are thought to support such inferences." [344]

Ratzsch's distinction makes us think that if ID theoreticians aim to show the agency of design they must go one step further. For Ratzsch the agency of designer need another concept, namely counterflow which "refers to things running contrary to what, in the relevant sense, would (or *might*) have resulted or occurred had nature operated freely." [345] And "a*n artifact* is anything embodying counterflow." [346] That does not mean, of course, that any violation of natural law (*counterflow)* can be defined as design. Thus, pattern entails neither finite design, intention, counterflow, agency, nor artifactuality. Design entails pattern, counterflow, intention, agency and artifactuality. Artifact entails counterflow and agency, but not necessarily either intention or pattern (although it is obviously consistent

[342] Ratzsch, D., *Nature, Design and Science: The Status of Design in Natural Science*, State Universtiy of New York Press, Albany, 2001, p.4.

[343] *Ibid.*, pp.3-4

[344] *Ibid.*, p.4.

[345] *Ibid.*, p.5.

[346] *Ibid.*,p.6.

with both). Counterflow entails artifactuality and agency, but neither pattern, design, nor intention. [347]

In this sense;

> …we typically recognize artifactuality –and get our first clues to designedness- through recognizing indications of counterflow in results, processes or initial conditions, and we recognize such counterflow against the background of and in contrast with our understanding of the normal flows of nature.[348]

The flow of nature marks the natural boundaries and finite creatures operate within it. To some extent, the representation of the boundaries of nature is natural law. And for Ratzsch, natural law and even the complexities of nature can not give us any evidence about the existence of a designing agency: "Design will be taken to involve either directly or indirectly, free, deliberate, intentional agent activity, aimed at generating some phenomenon typically embodying a mind-correlative pattern, which is left to itself, nature would not (normally) produce." [349]

However, there are two kinds of design for Ratzsch: finite design and supernatural design. Supernatural design has some features that finite design can not have like being capable to contravene, suspend or changing natural laws. [350] Ratzsch supports the idea that the shift from artifactuality to design does not depend on supernatural agency of designer but other factors:

> Complexity of suitable degrees, difficulty and demandingness of production conditions and procedures, interlocking functions, adjustment of means to ends, assignable value –all of these things

[347] *Ibid.*

[348] *Ibid*, p.9.

[349] *Ibid*, p.6.

[350] *Ibid*, p.27.

make conclusions of deliberate intent, purpose, and designedness perfectly plausible. [351]

Detecting these noted features is not sufficient. Even though those conditions constitute the defining characteristics of design and a designer, the probable explanations that appeal to supernatural activity are in need of rational and scientific legitimacies. The legitimacy of design raises this chief question: In what sense can design function as an explanation? Here, Ratzsch refers to the division of primary and secondary marks of design in order to identify supernatural design.

William Paley, in his *Natural Theology*, deals with both -in Ratzsch's terminology- primary and secondary marks of intelligent design. As noted earlier, if we investigate his book in two main sections, the first section is the application of his argument at the appearances of nature –that are considered as the primary marks of design; and the second section is about the secondary marks of this design which signifies the personality of the Deity.

At first, if there is a direct agency of a designer within the process of nature, it should be visible. The invisible activity of a designer is far from convincing. However, Ratzsch tends to think that the activity of a supernatural designer can be invisible. The primary marks of a design can be missing. This is the *initial structure* of nature. [352] The laws, constants, and primordial initial conditions of nature present the flow of nature. This purely natural phenomenon removes any prospects of its being designed. Is recognizing design without primary marks possible? Ratzsch answers as follows: "In general they seem to be the secondary marks –complexity, functionality, adjustment of means to ends, or beauty, elegance, simplicity

[351] *Ibid*, p.43.

[352] See: *Ibid*, pp.52-60.

and the like."[353] These bridge properties demonstrate the activity of an agent from artifactuality to designedness.

When this idea applies to Paley's eye analogy, it means that eye is not just an agent's artifactual activity, but also a result of a creative design process. The design relevance is context dependent. With this in mind, Ratzsch proposes to use the *Principle of Design Relevance* (PDR). The PDR functions as a bridge property to show design process. An attempt for describing physical mechanism and the means of a watch can remain incomplete without explaining how the parts were produced and united. And this is filled by the activity and intent of the agent. However, PDR does not supply an evidential support for designedness provided by a bridge property outside the agent's activity context.[354]

Ratzsch's definition of the conceptual content of "design in nature" refers that the primary marks of design can not ensure the rational indications of a design. To illustrate, for Ratzsch, the cosmological anthropic and fine-tuning arguments results in suspecting an agent activity. In this conceptualization, this is a fact that secondary marks of design are more reliable and design process is totally independent of the question of how those characteristics were in fact produced.[355] In general intent and purpose reflects designedness, yet other possible marks, such as aesthetic sensitivity, are not questioned by *scientific* investigations and legitimacy. So concerning natural phenomena, for Ratzsch, secondary marks (such as complexity, improbability, precise instrumentality, and tight constraints on production…) do not themselves provide strong, obvious evidence for design. Deep mind correlativity is more powerful for design.[356] In other

[353] *Ibid*, p.56.

[354] *Ibid*, p.58.

[355] Ibid, p.61.

[356] *Ibid*, p.70. It is not clear what deep mind correlativity means in Ratzsch terminology. I think this refers to more powerful traits of natural or counterflows than empty aesthetic sensitivity. If so, it rejects many explanations of theologians and philosophers that the

words, the functional character of complexity is more influential than the operative complexity. Ratzsch accepts Paley's method because Paley's lab is the whole area of biological adaptation of means to ends which is the most popular category of evidence. Ratszch summarizes this strategy in one sentence: "Active functionality and maintenance of high degrees of stable complexity intuitively suggest design."[357] That is why the solar system is not a powerful evidence for design as the eye or a living cell is. So in the context of functionality and the marks of an agent activity, function is a good indication of an external purpose and consequently design.

Considering the concept of design and deciding on the validity of the evidence for it do not fit into our scientific dealings with nature. According the underdetermination principle -which presents us a dilemma between the empirical purity and theoretical legitimacy-, it can not be expected from science to formally consider the existence, character, or activity of supernatural.[358] Especially the *intelligence* of design is out of scientific realms, according to this frame. Design has been a subcomponent of the concept of creation and a creationist literature for ages. The uniformity of nature, the natural law, beauty, force, etc… are the concepts of creationist literature. Very roughly, if the cosmos was designed, then it was an artifact. To sum up, Ratzsch's analysis of design emphasizes the concept of "counterflow" in order to present that design is apparent not in patterns but

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beauty of nature is an evidence for the existence of an artisan. Ratzsch seems to be influenced by the Darwinian and neo-Darwinian explanations. He emphasizes functional "value" of the natural or counterflows.

[357] *Ibid*, p.73

[358] The default position of science is naturalism which means the self-sufficiency of nature. According to this principle, scientific legitimacy is limited to what is natural. Natural laws determine the natural order. This materialistic attitude of science is not approved by intelligent design. Especially Dembski claims that there must be a distinction between natural and intellectual causes in order to understand how specified events occur in nature. In a naturalistic approach there is no room for the agency and intelligence of a designer.

in artifacts. Thus, after Darwinian explanations, for Paleyan terminology's not being "empirically empty", "conceptually sterile", "scientifically legitimate" and theologically free understanding of design, after reconsidering the analyses of Moore, McLauglin and Ratzsch's, I think ID followers should improve on the Paleyan content of design. Paley's design can not be considered according to the naturalistic sense of design. For instance, Allen and Bekoff states that there is a twofold usage of design: "goal-driven design" and "intent design".[359] According to their definition, these two usages belong to "physiological" meaning of design. Goal-driven design, therefore "shapes an object or behavior in the light of explicit functional desiderata".[360] Whereas the process of design is controlled and sometimes needs to be modified for the sake of the success of the project by the designer; intentional actions of designer may be realized instantly.[361] That is to say, the intent design does not have to obey the required function of a designed object. For instance, Allen and Bekoff say that a rock on a desk can be intentionally used as a paperweight. Thus, "function does not entail design for that function".[362] However, Paley rejects an idea of modification and adaptation without the intention of the Deity. The properties of nature are not by "any blind necessity but as the effect of economy, wisdom and design; because the property itself, assumes diversities, and submits to deviations, dictated by intelligible utilities, and serving distinct purposes of animal happiness.[363] So once natural design is accepted in terms of intelligent design, the function of design is replaced with the purpose of designer. And the intention of the user becomes an

[359] Allen C., Bekoff M. "Biological Function, Adaptation and Natural Design", *Philosophy of Science*, Vol.62, No:4, p.614.

[360] *Ibid.*

[361] *Ibid.*

[362] *Ibid.*

[363] Paley, *Natural Theology*, p.220.

actualization of purpose. Allen and Bekoff note that biological function can only be considered as the enhancement of adaptation.[364] However, in Paleyan design all the adaptive processes are determined by the intelligent designer and there is no idea of progress. The secondary marks of the concept of design such as function, intention, adaptation, etc… are not the secondary marks of the notion of intelligent design. The secondary marks of intelligent design are complexity, mechanism, contrivance, etc… Although the concept of natural design emphasizes the pattern of two keys, the notion of intelligent design welcomes the agency by the inference of that key is for lock.

4.2. Naturalism Revisited

The main concern of Intelligent Design theoreticians is to set up a safe and sound way for William Paley's argument to design in science. In this respect, ID theoreticians must first explicate the distinguishing characteristics of special complexity of (designed) nature. Secondly, in order to be more convincing than Paley who draws an inference from the complexity of designed objects (watch, telescope) to natural ones (organisms and their organs), ID must provide a "scientific" explanation for the "intelligence" of design. In other words, ID proponents must convince us that their explanations of design are scientifically acceptable. Thirdly, they must found a creationist basis for the complexity of nature without relying on the attributes of God and must rescue themselves from natural theology in order to cope with naturalistic explanations of Darwin more effectively.

In this sense, the philosophical project of ID should expose a new understanding of nature between theological and scientific realms. It is clear that scientific naturalism does not allow ID to modify the meaning of

[364] *Ibid*, pp.612-613.

reality and factual world since ID takes supernatural causes into consideration. When naturalism is revisited, the recent history of challenge between ID and naturalism results in such a strategy:

i. There is a conflict between the naturalistic model of science and theology. The mutual support between science and theology can be provided by ID's research program.

ii. The epistemic status of ID suggests to detect and to understand the intelligent causes as much as natural causes. ID is not a science in accordance with naturalism but it requires to be accepted as a research program based on *special information* of design.

iii. ID proponents try to build up a kind of special information without implying the attributes of Deity. They think that this special information of design requires a non-naturalistic methodology. This information consequently shows that the complexity is not a result of blind natural process.

iv. ID tries to broaden the meaning of reality because they consider that metaphysical aspects are ignored by methodological naturalism.

v. The main formulation of ID proponents is to raise arguments against evolution because they think the principles of evolution are not capable of explaining entire causes in factual world. Additionally, ID proponents claim that scientists give an opportunity to Darwinism just because the theory of evolution by natural selection works in accordance with the principles of naturalism.

Considering this outlook, ID argues that their explanations are not scientifically defensible against the dominant methodology of science. What Dembski understands from methodological naturalism is obvious: "the view that science must be restricted solely to undirected natural processes… is called methodological naturalism."[365] Dembski sees all types of naturalism reducible to methodological one. He claims that

[365] Dembski, *Mere Creation*, pp.27-28.

methodological and metaphysical naturalism are "functionally equivalent" since "science is taken as the only universally valid form of knowledge."[366] Thus, the mission of ID is, at first step, to *break* the necessary connection between the methodological and metaphysical types of naturalism. ID's non-naturalistic position defends that metaphysical worldview cannot be reduced to the limited scientific methodology. That position of ID underlines that scientific research on nature limits the meaning of reality and ignore the impact of metaphysical worldview. It accepts the empirical evidence as the absolute legitimate way of knowing nature. Dembski calls this "subversive" characteristic of science against creation "negative"; so, he defines intelligent design as "a positive scientific research program".[367] The possibility for transforming a metaphysical worldview into scientific inquiry for Dembski involves reconceptualization of naturalism. According to Dembski this transformation is a "cultural movement" which consequently results in connecting a theological investigation of the term intelligence.[368] The strategy of ID described by Dembski supports my main claim: throughout this dissertation I have tried to illustrate that the philosophical analysis of intelligent design must give more importance to the concept of intelligence than design. Due to accepting this universe's being designed, does not necessarily result in showing how it is governed by intelligent designer. The theological implication of the argument involves "intelligence". Therefore their search for a new science is not limited to detecting design in a biological level but emphasizes a creationist-theological inquiry on the intelligence of design. ID proponents define ID as "a research program".[369] And ID as a research program aims to be a positive science in terms of approving a theology of nature.

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[366] *Ibid.,* p.28.

[367] *Ibid*., p.29.

[368] *Ibid.*

[369] Dembski, *Intelligent Design*, p.106.

In this sense, although there have been controversies about whether the universe was designed by God or a result of natural selection between scientists and theologians, contemporary ID defenders admit that intelligent design is a way of understanding universe with no conflict between science and theology. Thus, ID attempts to be a "scientific research program, intelligent movement and a way of understanding divine action."[370] It is clear that ID movement yearns for mutual support between science and theology. And that is why their understanding of science can not be based on naturalism. However, they do not ignore the role of divine action. In this sense I think the main point is this: if ID's leading account is to clarify the divine action, it should be asked what makes them different from natural theology.

ID proponents have produced different concepts in order to rescue their conceptualization from the theological dominance of natural theology. At first, ID introduces itself as *an information theory of the intelligent causes*. Dembski notes that "intelligent design is not the study of intelligent causes per se but of informational pathways induced by intelligent causes."[371] This context of ID for Dembski indicates that "intelligent design presupposes neither a creator nor miracles. Intelligent design is theologically minimalist. It detects intelligence without speculating about the nature of the intelligence."[372] Dembski adds that intelligent design is more powerful than natural theology, because it does not claim to repeat the closing chapter of Paley which is the weakest point of his *Natural Theology*. The next step of ID research program is not to refer to the hand

[370] *Ibid*, p.13. To remember, Popper is the one who claimed that Darwin's theory of evolution is a metaphysical research program because of the logical status and some considerations on the testability of Darwin's theory. Here my main aim is not to focus on Popper's criticism but rather try to analyze what kind of model Dembski offers against the dominance of naturalism.

[371] *Ibid*, p.107.

[372] *Ibid.*

of God but "empirically detecting design and then reverse engineering those objects detected to be designed".[373] Dembski restricts the intelligence of design by the concept of "choosing": "intelligence consists in choosing between two".[374] Does ID really present a new kind of "scientific" information? How does ID become a subject of scientific inquiry?

The main claim of ID is based on the claim that the existence of natural structures requires deeper (special) information than Darwinian explanations. Dembski calls this special information "complex specified information" which attributes design to "contingent, complex and special events".[375] That is to say there is no room for chance and necessity in nature. The relation between "information" of ID and "design" in natural theology is criticized by Peter Godfrey-Smith as such: "Recasting the argument in terms of 'information' does not change the situation. And a recasting in terms of a general 'law of conservation of information' makes the argument worse than better."[376] Back to Dembski, the law of conservation of information means "natural causes are incapable of generating complex specified information".[377] Smith claims Dembski's explanation is a matter of speculation.[378] In other words, Dembski's information theory is based on the concepts of naturalism. The theory exceedes the boundaries of naturalism and he makes speculative judgments since he believes that there are intelligent causes behind

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[373] *Ibid*, p.109.

[374] Dembski, W., Intelligent Design as a Theory of Information, *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p.569.

[375] Dembski, *Intelligent Design*, p.159.

[376] Smith, P.G, "Information and the Argument from Design", *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p.594.

[377] Dembski, *Ibid,* p.170.

[378] Smith, *Ibid,* p.592.

natural causes. For instance, specification refers probability but it never indicates that self-organizational properties of matter (natural causes) are sufficient to explain the origin of phenomena. Besides this, ID, for Dembski, offers that design is prior to natural processes. Scientists think that "design occurs at the end of an undesigned natural process and cannot be prior to it."[379] Dembski alleges that the main problem here is the naturalistic principle of science which forces scientists to make a choice between theism and atheism. According to Dembski, even theist scientists believe that "science is best served by excluding design. The worry always is that invoking design will stifle scientific inquiry."[380] Thus, Dembski render information theory a part of scientific inquiry and he welcomes supernatural causes.

David Deming rejects Dembski's position regarding the aspects of scientific inquiry. According to Deming, "supernatural causes" is the main concept of design arguments in order to explain the existence of designer. However this conceptualization can not be part of scientific inquiry because supernatural causes do not "repeatedly or uniformly" occur.[381] They are just a part of inductive reasoning and they are deduced from miraculous events.[382] It is obvious that Dembski and his friends suggest broadening the methodology of scientific activity. If the notion of detecting the supernatural is imposed on naturalism somehow, ID proponents think there will be no contradiction. However, Deming thinks that it is not possible:

> The Design Argument can be entertained as a scientific hypothesis in only two ways: First, it is methodologically allowable to infer a natural designer, but this is a trivial hypothesis that immediately leads to that the problem of infinite regress. Secondly, Design could

[379] Dembski, *Ibid,* p.122.

[380] *Ibid*.

[381] Deming, D., "Design, Science and Naturalism", *Earth-Science Reviews*, 90, 2008, p.62.

[382] *Ibid.*

> be postulated to originate in a natural principle of order, such as is found in ancient Greek or Chinese thought. But in that case the principle of Design is only another law of nature, one that acts uniformly, repeatably, and can be understood in terms of efficient causation. It is clear from the historical context and the plain description of the Design Argument by its advocates that the proposed origin of Design is by means of a supernatural and intelligent agent, a deity with free will that is not bound by natural law. Thus the Design Argument cannot be formulated as a scientific hypothesis.[383]

Therefore, the stress on the intelligence and designer can not be coherent with naturalism. The proper way for ID proponents should be the modification of ruling model of science. Consequently, the scientific status of ID is defined "mutual support model" between science and theology.[384] Dembski claims, ID is an alternative model to naturalistic "compartmentalization model".[385] However, Dembski also rejects a "complementarity model"[386] even though "[u]nlike the compartmentalization [this] model…admits that science and theology can address the same aspects of reality."[387] Dembski disagrees with such a methodology since "a single coherent discourse" is ignored by this model regarding the different languages of science and religion.[388] That is to say ID expects to realize a full integration of the different concepts of science and theology.

In accordance with this strategy, Dembski considers Philip Johnson's criticism about naturalism as "eloquent".[389] According to Johnson, scientific naturalism fails because it is accepted as "a

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[383] *Ibid.*

[384] Dembski, *Ibid*, p.191.

[385] *Ibid*, p.188.

[386] *Ibid*, p.189.

[387] *Ibid.*

[388] *Ibid.*

[389] Dembski, *Mere Creation*, p.28.

worldview".[390] Johnson formulates the challenge as follows: the definition of science which is "committed to *empiricism*" (means "observation, experiment and calculation" are the only legitimate ways of seeking truth) leads to *scientism* (means "knowledge comes only through the methods of investigation available to the natural sciences").[391] Johnson adds that this limited version of science is not capable of producing satisfactory answers for the origin of life and the purpose in nature.[392] Johnson criticizes scientism due to fact that it forces the (creationist) scientists to accept the truth of Darwinian explanation of nature just because Darwinism is naturalistic.[393] Additionally, Johnson claims that the probable philosophical handicaps of evolution are suppressed by scientism. For instance, Johnson argues that why scientists label evolution as a "fact" is based on "a highly controversial philosophical presuppositions" and he adds that "the more people learn about the philosophical content of what scientists are calling 'fact of evolution', they less they are going to like it".[394]

According to that view, the anti-evolution agenda was declared in 1999, as "The Wedge Strategy".[395] The origin of the declaration is still doubtful but Forrest and Gross report a long history about the authenticity of the text. According to their investigation "The Wedge Strategy" really

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[390] Johnson, P.E., "Evolution as Dogma: The Establishment of Naturalism*", Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p.72.

[391] *Ibid*.

[392] *Ibid*, pp.73-74.

[393] *Ibid*., p.73.

[394] *Ibid*., p.60.

[395] The entire document may be viewed at: <http://www.antievolution.org/features/wedge.html>

belongs to Discovery Institute's (DI) Center for Renewal of Science and Culture (CRSC).[396] The goals of The Wedge Strategy are various:

Governing Goals

- To defeat scientific materialism and its destructive moral, cultural and political legacies.
- To replace materialistic explanations with the theistic understanding that nature and human beings are created by God.

Five Year Goals

- To see intelligent design theory as an accepted alternative in the sciences and scientific research being done from the perspective of design theory.
- To see the beginning of the influence of design theory in spheres other than natural science.
- To see major new debates in education, life issues, legal and personal responsibility pushed to the front of the national agenda.

Twenty Year Goals

- To see intelligent design theory as the dominant perspective in science.
- To see design theory application in specific fields, including molecular biology, biochemistry, paleontology, physics and cosmology in the natural sciences, psychology, ethics, politics, theology and philosophy in the humanities; to see its innuence in the fine arts.
- To see design theory permeates our religious, cultural, moral and political life. [397]

The anti-evolution agenda of CRSC uses "The Wedge Strategy" in order to advance ID movement against evolution. Forrest calls this strategy "the most recent" and "most dangerous manifestation of creationism".[398] As Forrest puts, the strategy does not only deal with shaking the philosophical foundations of naturalistic science but raising an anti-evolutionary public awareness as well. "The Wedge Strategy" is developed in order to

[396] Forrest B., Gross, P.R. , *Creatonism's Trojan Horse: The Wedge of Intelligent Design*, Oxford University Press, USA, 2004, pp.25-35.

[397] <http://www.antievolution.org/features/wedge.html>

[398] Forrest, B., "The Wedge at Work, How Intelligent Design Creationism is Wedging Its Way into the Cultural and Academic Mainstream",*Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p.5.

transform the mainstream of academic studies of nature by promoting ID. Thus I agree with Forrest's main claim that the intelligent design movement as a whole has philosophical and religious goals for changing the cultural reception of science rather than presenting what the insufficient points of naturalistic background of science definitely are. However, for ID proponents the philosophical and theological ways of detecting design as God's interaction are legitimate ways of understanding it. What they aim is to carry the legitimacy of the evidential character of design from theology to science. If science is restricted with natural causes, ID has no chance to realize this aim. That is to say, first, ID is based on a research of design. Secondly, design is a meaningful arrangement of nature according to intelligent causes. And thirdly, intelligent causes require a special supernatural-friendly approach.

To remember, the emergent point of ID, dissimilar to AD, is to provide an explanation of designed nature without referring to the attributes of God. Although ID supports creation, it particularly refrains from making theological explanations. Opposing evolution, ID must provide an explanation for natural phenomena by excluding natural selection and other natural causes. In other words, ID must persuade us that their hypotheses are more "scientific" than argument from design, and ID is a more powerful explanation than Darwin's Theory qua covering the whole picture of nature. It is clear that ID has no chance to be accepted as science as far as science has the naturalistic methodology. Theistic claims of ID are in contradiction with the essential characteristics of science. Michael Ruse defines those characteristics as such:

> [1] A major part of the scientific enterprise involves *the use of law* to effect *explanation*. A scientific explanation must appeal to law and must show that what is being explained had to occur. The explanation excludes those things that did not happen… [2] The other side of explanation is *prediction*. The laws indicate what is going to happen… [3] Closely connected with the twin notions of explanation and prediction comes *testability*… the scientist can see

> if the inferences made in explanation and prediction actually obtain in nature… [4] The researcher looks for some positive evidence for *confirmation*… [5] Science is *tentative*. Ultimately, a scientist must be prepared to reject his theory.[399]

In this context, ID as a creation-science does not satisfy the standards of science listed by Ruse. First of all, whereas the natural regularities are considered as natural laws by science, ID emphasizes the causes outside of nature.[400] Secondly, the explanation of design is strictly relevant to intelligent plan of designer. In such a determined plan what is going to happen is not a question for an ID proponent. In other words, for ID nature is completed. Next, as Ruse holds, testability and confirmation of "experimental or observational work of creation scientists" are mostly based on "twisting the conclusions of [evolutionists] to their own ends" because their "[a]rgument proceeds by showing evolution…wrong, rather than by showing Creationism right."[401] Lastly, since creationists never think to reject their position, they are not open to modify their beliefs. By that, *tentativeness* is not provided by the ID proponents.

Thus we come to the fact that intelligent design is not a pure natural explanation. The only way for ID is to change the mainstream science based on naturalism. "Naturalism" refers to the methodological premise of scientific activity, so that it is the main principle of science. In this methodology, nature is considered as a closed-system and science rejects all the supernatural factor(s). The ultimate reality of nature leaves no place for proving that God exists. According to methodological naturalism, referring to "God as the Creator is to violate the Ockham's razor, because

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[399] Ruse, M. "Creation Science is Not Science", *Science, Technology&Human Values*, Vol.7, No:40, 1982, p.73.

[400] For instance Dembski argues that "intelligent causes can do things that natural causes cannot. Natural causes can throw scrabble pieces on a board but cannot arrange the pieces to for meaningful words or sentences. To obtain a meaningful arrangement requires an intelligent cause." (Dembski, *Intelligent Design*, p.105.)

[401] Ruse, *Ibid,* p.75.

purely naturalistic forces seem to be enough to explain the origin of universe… and the scientifically built picture of the world is for scientists as just the true one."[402] Some commentators have attempted to reach an extended understanding of naturalism in order to rescue ID from criticism. For instance, Bylica and Sagan underlines that the incomparability of naturalistic and theistic explanations of nature became definite after Darwin:

> In the *Origin of Species* Darwin provided naturalistic explanation to Paley's crucial examples. Darwin denied special creation and any theistic and teleological interpretations of evolutionary theory. Contemporarily teleological explanations justified in science are only those understood as functional explanations.[403]

This specification of Bylica and Sagan means that after Darwin, the debates on the scientific legitimacy of design arguments both "rejects the possibility of scientific studies of supernatural" and "it limits the scientific explanation of materialistic ones."[404] In other words, Bylica and Sagan maintains that in order to eliminate supernatural causes, naturalism invokes particular concepts of Darwinian explanation such as chance and necessity as natural categories.[405] From the perspective of Bylica and Sagan, the position of ID is not about the "naturalism and supernaturalism opposition" but about the "opposition of naturalism and artificialism".[406] I think by this distinction, what they want to say is that: since design theorists do not identify the designer their explanations could be considered as

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[402] Bylica, P., Sagan, D., "God, Design, and Naturalism : Implications of Methodological Naturalism in Science for Science-Religion Relation", *Pensamiento*, Vol. 64, No. 242, 2008, p. 624.

[403] *Ibid*, p.628.

[404] *Ibid*, p.629.

[405] *Ibid.*

[406] *Ibid.*

scientific. But whenever the attributes of designer come into fore, they have to deal with artificialism which means the *intelligent causes* surpass the *purpose*s of nature. But there is still a problem: the theistic claims are based on creation and God's action on nature. Thus God's designing activity (intelligence) is still out of empirical detection (design) both in supernaturalism or artificialism owing to the gap between naturalism and theistic picture of world. To repeat, intelligence is a tricky term because of its theological and philosophical involvements. Similarly, design is a blurred concept. I agree with Bylica and Sagan's claim that chance and necessity are also blurred concepts regarding the framework of naturalism. But I think it is not possible to discount ID opponents as long as ID proponents use the term 'intelligence' for causes and 'design' against chance and necessity.

To build an alternative approach to naturalism, ID should embrace a new methodology. Behe and Dembski, the foremost activists of ID, do not suggest any alternative epistemology for science but they yearn for a "special science". Dembski says, from the perspective of such a special science, "inferring design is common, rational and objectifiable".[407] However, he does not present a detailed epistemology or methodology for this special science. The framework of creationist science is still in question. This lack of information has been criticized by Sahotra Sarkar who explains why ID fails in science. He argues that even if ID succeeds to eliminate naturalism in order to be entitled as scientific, it does not still deserve to be a science since intelligent design theory has no "substantive" understanding about intelligence and design, and that is why ID fails in "demarcation".[408] That is to say, unless ID solves its methodological problems, the elimination of naturalism can not solely lead to accepting ID as a science. The first point of Sarkar, that intelligent design theory has no

[407] Dembski, *Mere Creation*, p.94.

[408] Sarkar, S., "The Science Question in Intelligent Design", *Synthese*, 2009, pp.13-14.

substantive understanding about intelligence and design, is parallel to my main argument. So, I do not repeat the context of this criticism in detail. I think throughout my dissertation this problem is analyzed from the first examples of design arguments to Paley's *Natural Theology* in detail. I share the idea that the concept of intelligence is more problematic than the concept of design. Recently, ID proponents have added two more concepts "irreducible complexity" and "specification" in order to distinguish design from natural phenomena. I will present their definitions in the following section.

However, the second point of Sarkar is more crucial and it is relevant to the substantive characteristic of ID. Sarkar thinks, demarcation principle does not give any advantage to proponents and they must primarily bother with demarcation as much as naturalism in a conceptual level. The *demarcation principle* which draws a border between science and religion, tells us that the factual claims of ID about the empirical world can not be clarified through religious premises. If we take Popper's presentation of demarcation as a criterion it seems as if it presents an advantage to ID because, as Sober notes, "many intelligent design claims pass the test of falsifiability."[409] That is not sufficient for Sarkar: ID must rescue itself from "intelligence":

> Faced by ID, if we add the claim that the designer is a conscious physical entity, the natural reaction should be to regard ID as coherent but with no evidence whatsoever to support it and all evidence against. We would not think of it as science. But if we are told that the designer is not physical, and that we are not talking about a conscious designer modeled on the Judeo-Christian-Islamic 'God,' we no longer have any clue what 'intelligence' means. Once again, ID is not science but, now, mainly because we simply do not know what it is saying.[410]

[409] Sober, *Evidence and Evolution*, p.130.

[410] Sarkar, *Ibid*, p.13.

Although Sarkar emphasizes that intelligent design has philosophical and theological premises, ID proponents imagine that this is also an issue for evolutionary theory. For instance Stephen C. Meyer thinks that ID and naturalistic explanation of evolution are methodologically the same because the demarcation that is drawn by ID opponents is also applicable to Darwinian Theory.[411] This understanding, I think, supports the idea that ID proponents agree that the distinction between these rival theories is not a matter of degree but a matter of kind. What Meyer notes might be clearer by Larry Laudan's article "The Demise of Demarcation Problem."[412] For Laudan, throughout the history of philosophy of science demarcation principle has carried various meanings. Laudan introduces that the new formulation of demarcation by Popper transforms from "verifiability and meaningfulness" of scientific activity to "semantic strategy of scientific activity".[413] And he adds that Popper "makes it impossible to compare the degrees of two distinct theories".[414] I will not report the whole discussion here. But I conclude from Laudan is that: the demarcation principle is no longer a sufficient tool for determining whether a theory is scientific or should be labeled as non-science. The common understanding of demarcation is based on some invariants of epistemic status of theories. "The heterogeneity of the activities" requires more flexible criterion or a new model of science.

In this section naturalism is revisited. I should take into consideration Alvin Plantinga because he especially attempts to show that a theistic science as a new model of science might be coherent. ID advocators

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[411] Meyer, S.C., "Zeki Tasarımın Bilimsel Konusu", *Evrenin Alternatif Tarihi: Tasarım,* Behe, M.J, et al., (Trans.) O.Düz, Gelenek, İstanbul, 2004, p.162.

[412] Laudan, L. "The Demise of Demarcation Principle", *Physics, Philosophy and Psychoanalysis Essays in Honor of Adolph Grunbaum*, R.S.Cohen (ed), Kluwer, Dordrecht, 1983, pp.111-127.

[413] *Ibid*, pp.120-121.

[414] *Ibid*, p.121.

frequently apply Plantinga's epistemological position between science and religion, in other words, knowledge and belief. Plantinga's science is a "theistic science" not a creation science. That is to say, he is neither in favor of the limits of methodological naturalism nor defends a hero God. He rather emphasizes the scientific merit of theistic proofs. As I have mentioned in previous sections, Plantinga's position in epistemology is about leaving a room for beliefs. Plantinga's main question in this debate is about "the apparent conflict" between faith (the teaching of the Bible) and reason (the teaching of science).[415] For Plantinga, contemporary science's being the manifestation of reason does not mean that the changeable truths of science are better than what Scriptural truth teaches.[416]

Of course this epistemological attitude of Plantinga is worth to be analyzed. Ernan McMullin interprets Palantinga's position as a defense of special creation.[417] According to his comment, Plantinga's theistic science does not aim to create "God-of-the-gaps image".[418] "God-of-the-gaps" means that when a scientific explanation about nature remains insufficient, creationists prefer to fill this gap with the transcendental image and super abilities of God. Although it is commonly practiced by natural theologians, ID proponents rather emphasize the "special" work of intelligent designer. Thus, Plantinga sees special creation as an alternative principle for theistic explanations which increases the likelihood.[419] I conclude from Plantinga's framework that he sees the science-theology relationship parallel to the interaction between faith and reason. As he notes "[w]hat the Christian

[415] Plantinga, A. "When Faith and Reason Clash: Evolution and The Bible", *The Philosophy of Biology*, (ed.) D. L. Hull, M.Ruse, Oxford University Press, 1998, p.674.

[416] *Ibid.,* p.678.

[417] McMullin, E., Plantinga's Defense of Special Creation, *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p. 184.

[418] *Ibid.*

[419] *Ibid*, pp.184-185.

community really needs is a science that takes into account what we know as Christians… this seems the rational thing in any event; surely the rational thing is to use *all* that you know in trying to understand a given phenomenon."[420] Plantinga's definition of Christian Science claims that reason is not capable of covering all reality, and then there should be place for faith in order to grasp the whole picture. Plantinga adds that after the Enlightenment, science had a power over all branches of explanations, but it is not true to assert such a claim that science is wholly "religiously and theologically neutral".[421] He makes a distinction between the parts and the body of science. The parts of science provide explanation about the planets, the periodic table of elements, etc…, whilst the general picture of cosmos belong to various and sometimes conflicting worldviews.[422] Thus, Plantinga emphasizes that whenever there is an abstraction of some "theoretical variables" from factual practices, we face reason and faith interaction.[423] In this interaction, the background knowledge, the power of myths *indirectly* plays a role in accepting scientific data.[424] For instance, regularity is different from the idea of lawfulness. One can directly accept regularity yet the idea of lawfulness requires an indirect knowledge and some reasoning prescribed by definition of law.[425]

Of course a long debate can be realized about how Plantinga's epistemology works between reason and faith, but because of the limits of my dissertation I should close this discussion by Evan Fales' criticism of

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[420] Plantinga, A., "Methodological Naturalism?", *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p. 341.

[421] *Ibid*, p.340.

[422] *Ibid*.

[423] *Ibid*, pp.340-341.

[424] *Ibid*, p.342.

[425] *Ibid,* pp.344-345.

Plantinga's understanding of naturalism which is about an analysis of Plantinga's theistic epistemology for non-naturalistic science. Fales thinks that Plantinga's model for the epistemology of science is a "cognitive limitation" to science.[426] In other words, we might think there is no difference between putting limits to the cognitive functions of science and rejecting naturalistic explanations of nature. I agree with Fales criticism that Plantinga's attack on naturalized epistemology of science in order to make some theological implications of explanations of natural facts possible can not be the proper strategy for eliminating naturalism.

According to Fales' analysis, Plantinga does not support "naturalism-plus-naturalized epistemology" (NNE) since he thinks that it gives way to skepticism; rather he accepts "theism-plus-naturalized epistemology" (TNE).[427] I should add this in order to remind that, in Plantinga's *warranted epistemology* the epistemic status of a faithful knower is prior to knowable matter. For Plantinga, NNE does not give us cognitive reliability. Whenever we think that "normal and properly" functioning cognitive faculties are given by God then skepticism will be terminated.[428] Fales underlines that this connection of Plantinga is false if Darwinian evolution tend to explain how reliable mechanisms of knowledge develops through the evolution process.[429] Then Plantinga fails to think that there is a priori connection between Darwinism and naturalism. Fales maintains Plantinga and ID proponents own a wrong strategy opposite to naturalism: they think as if "the falsity of Darwinism *entails* the falsity of

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[426] Fales, E., "Plantinga's Case against Naturalistic Epistemology*", Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, pp.387-411.

[427] *Ibid*, p.388.

[428] *Ibid.*

[429] *Ibid*, p.392.

naturalism."[430] However, according to Plantinga's epistemology, our senses and reason are not reliable in terms of Darwinian explanation of nature. As Plantinga states by the adaptive process of evalution Darwin does not mean that our cognitive faculties are not reliable in order to grasp the truth but they are functional aspects of mankind. Therefore, Darwinian explanations are not acceptable. For Plantinga, instead of Darwinian explanation, if we take the theological-philosophical interpretation into consideration we can conclude that God never misguides his followers. Additionally if the cognitive tools of man are produced by God that premise leads to a warranted belief which means cognitive capacity of man is capable to grasp the truth.[431]

To conclude, because of the reasons listed in this section, ID which stresses intelligence of design and considering design as the sum of specified complexity information can not go one step further than Paley's natural theology. For ID, naturalism necessarily brings atheism on ontological level. However, that is not the case. By definition, because ontological naturalism claims "what exists in nature… is all there is" and because of the fact that "God is standardly is assumed to be supernatural, the ontological naturalists usually denies God's existence".[432] On the other hand, naturalism of science does not deal with the existence of an intelligent designer in the methodological level because "the methodological naturalist does not make a commitment directly to a picture of what exists in world, but rather to set of methods as a reliable way to find out the world…"[433] It is clear from this distinction that science directly deals with nature on factual level. On the other hand, the indirect intelligent

[430] *Ibid*, p.389.

[431] Plantinga, "When Faith and Reason Clash: Evolution and The Bible", Ibid, pp.677-679.

[432] Pennock, R.T., "Naturalism, Evidence and Creationism: The case of Phillip Johnson", *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives*, (ed.) R.T. Pennock, MIT Press, Cambridge, 2001, p. 84.

[433] *Ibid*.

causes of ID become a subject of metaphysical analyses and a contemporary version of natural theology, but not entitled to be an inquiry of natural sciences and methodological naturalism.

4.3. Intelligent Design

Thus far, the argument from design (AD) has been understood and considered as part of theological attitude of philosophers. However, with Behe and Dembski, the argument from design was replaced by the Intelligent Design Movement (ID) as attempted to be a scientific explanation of nature. AD was revisited by Paley in order to save the argument from Humean criticism. Intelligent design by Behe and Dembski is a result of eliminating the attributes of God in the argument to design of Paley after Darwin's Theory. Qua this approach, ID is expected to be accepted scientifically.

Natural theology was dismissed in the beginning of the 20th century by Darwinian understanding of nature. After Darwinian Theory, Paley's argument from design lost its central theological motive (being a natural theology). Obviously, evolution by natural selection accepts the argument for functionality but it rejects the argument to a designer. In other words, it presents the redundancy of a designer in its world picture. The Darwinian nature is the result of mechanic and random processes which does not need any governing principle or supernatural power to exist:

> What the theory of natural selection provided was a way to *naturalize* functional explanations of the origin of adaptations, naturalize in the sense that it showed how adaptations can exist without violation the cause-precedes-effect rule and without recourse to extra-natural mechanisms.[434]

The naturalization of teleology is that there is no observable plan and purpose in nature. The samples of natural selection and evolution are

[434] Sarkar, S., *Doubting Darwin,* Blackwell, USA, 2007, p.43.

observable but it does not result in thinking them as the designer's projecting products. Thus the Darwinian explanation of nature is in accordance with the "scientific materialism" [435], so-called *methodological naturalism*.

Naturalism as the accepted and dominant character of scientific activity and the explanations of Darwinian Theory after Paley forced ID theoreticians to figure out new concepts inferring design. Behe used "irreducible complexity" and Dembski emphasized the higher probability of design, namely "specialized". These concepts are not without connection to their concern of establishing a non-naturalistic science. The biggest problem for ID is the blurred meaning of design as I discussed above. Parallel to advancements in science, ID theoreticians know that they must establish concretely meaningful, scientifically testable, philosophically acceptable context for design. However, I think that the intelligent agency of design is still a big dilemma. The divine interaction in the world is not allowed as being scientific, unless the criteria of philosophical naturalism for legitimate explanation will not change as Dembski notes:

> The question posed by intelligent design is not how we should do science and theology in light of the triumph of Enlightenment rationalism and scientific naturalism. The question rather is how we should do science and theology in the light of the impending collapse of Enlightenment rationalism and scientific naturalism.[436]

ID theory defines itself as "a science that studies signs of intelligence."[437] Dembski outlines the "scientific" activity of ID as such:

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[435] "Naturalism perceives the world as self-contained, autonomous and subject only to intrinsic laws. Methodological naturalism, -or scientific materialism the term that Kenneth Miller uses- is essentially doing science within the framework of the assumptions of philosophical naturalism." (Zylstra, U., "Intelligent Design Theory: An Argument for Biotic Laws", *Zygon*, Vol:39, No:1, 2004, p.175.)

[436] Dembski, W.A., *Intelligent Design*, InterVarsity, Illinois, 1999, p.14.

[437] Dembski, W.A., *The Design Revolution*, InterVarsity, Illinois, 2004, p.33.

> As a scientific program, intelligent design investigates the effects of intelligence and not intelligence as such. What makes intelligent design so controversial is that it purports to find signs of intelligence in biological system.[438]

Moreover, Dembski also claims that ID is a research program for "a range of phenomena."[439] According to ID's "scientific" attitude,

> the validity of the design argument…depends not on the fruitfulness of design-theoretic ideas for science but on the metaphysical and theological mileage one can get out of design.[440]

That is to say that ID specifically focuses on the biological instances within the universe but does not ignore the universe as the casual background.[441] By that, ID theoreticians promote that "the reality is much richer place than naturalism allows".[442]

The deep problem of science, for Dembski is the problem of modernity because the modern thought determines the scientific activity according to strict natural laws and considers the divine action as the violation of natural laws.[443] Dembski thinks such a world that intelligent causes perform the primary action. This mythological intention of Dembski does not make any different sense compared to classical versions of argument from design. Although ID is not interested in what a designer has in mind, it is clear that the signs of intelligence must be in harmony with creation. The crucial point here is that ID theoreticians, in principle, go one step further than Paley regarding that the attributes of God is not the issue

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[438] *Ibid.*

[439] *Ibid*, p.65.

[440] *Ibid.*

[441] In accordance with the goals of ID, Dembski approves the "pragmatic naturalism" of Quine since pragmatic naturalism does not place any restraint on ID and theism. (*Ibid,* p.177.)

[442] Dembski, *Intelligent Design*, p.120.

[443] *Ibid,* p.46.

of their research. On the one hand, ID theoreticians demand to modify the naturalistic approach of science for the sake of a richer reality; on the other hand, they support the claims of premodern explanations of nature. This contradiction serves to make place for Christian God. Dembski says: "…the God of Christianity is a designer. To be sure, Christianity's God is not merely a designer. But he is at least a designer."[444]

> To sum up, I consider Dembski's widest definition of intelligent design:
>
> Intelligent design is three things: a scientific research program that investigates the effects of intelligent causes; an intellectual movement that challenges Darwinism and its naturalistic legacy; and a way of understanding divine action.[445]

4.3.1. Behe's Irreducible Complexity

Michael J. Behe 's (1952-) *Darwin's Black Box: The Biochemical Challenge to Evolution* is the "first baby steps of intelligent design."[446] The book's main claim is that the complexity of organisms can not be explained through Darwinian gradualism. Throughout the book, Behe tries to illustrate that gradual changes can not explain the complexity, and the complexity of the universe is such a special complexity that it must have been put together quickly or even suddenly by an intelligent designer.

Why is Behe's explanation of biochemical systems important? Unlike design arguments of the past, Behe argues that the intelligent design is a fruitful scientific theory for understanding the systems of the universe, especially the organisms as complex biochemical machines. He thinks that the advancements of science in the past sixty years especially

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[444] Dembski, *The Design Revolution*, p.176.

[445] *Ibid*, p.13.

[446] Dembski, W.A. *Mere Creation: Science, Faith&Intelligent Design*, InterVarsity Press, Illionis, 1998, p.29.

about the molecular basis of life show the insufficiency of the explanations of Darwinian evolution.

For Behe, two ways have served to explain the complexity but they are unsuccessful in their explanations facing biochemical challenge: First explanation is the symbiosis by Lynn Margulis. In her view, organisms aid one another, join forces and accomplish together what they could not accomplish separately. For Behe, this idea stems from the lack of knowledge about the cell structure. The essence of symbiosis is the joining two separate cells, or two separate systems, both of which are already functioning. Because symbiosis starts with complex, already-functioning systems, it can not account for the fundamental biochemical systems.[447] As a result, Behe comments that Margulis' position is away from explaining the ultimate origins of complex systems. The second complexity theory which was proposed by Stuart Kaufmann "states that the systems with a large number of interacting components spontaneously organize themselves into ordered patterns. Sometimes there are several patterns available to the complex system, and 'perturbations' of the system can cause it to switch from one pattern to the other."[448] According to Behe, "a controlled cellular environment does not permit the serendipitous interactions between chemicals that Kaufmann needs. Because a viable cell keeps its chemicals in a short leash, it would tend to prevent new, complex metabolic pathways from organizing by chance."[449] Consequently, like symbiosis theory, the complexity theory can not explain the origin and requires preexisting, already functioning systems.

Thus, the detection of design requires a new definition more than complexity. If "design is simply the purposeful arrangement of parts" then

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[447] Behe, M. J. *Darwin's Black Box: The Biochemical Challenge to Evolution*, The Free Press: New York, 1996, p.189.

[448] *Ibid*, p.190.

[449] *Ibid*, pp.191-192.

the scientific question about design becomes "how do we confidently detect design?"[450] Behe observes that "for discrete physical systems, design is evident when a number of separate, interacting components are ordered in such a way as to accomplish a function beyond the individual components."[451] According to this reasoning Behe suggests a new concept, "irreducible complexity" as an inference to intelligent design. Irreducible complexity is "a single system that is necessarily composed of several well-matched, interacting parts that contribute to the basic function, and where the removal of any of the parts causes the system to effectively cease functioning."[452]

Behe notes that "design can most easily be inferred for mechanical objects"[453]. The components of the system - put in order by an intelligent agent- with great specificity to do something. By this, Behe emphasizes the purposive character of design. He adds: "In order to reach a conclusion of design for something that is not an artificial object, or to reach a conclusion of design for a system composed of number of artificial objects, there must be an identifiable function of the system."[454] However we must be careful in defining the function. For Behe if a sophisticated computer is used as a paper weight it does not give its proper function. "In considering design the function of the system we must look at is the one that requires the greatest amount of the system's internal complexity. We can then judge how well the parts fit the function."[455] Thus he distinguishes the particular function and the intended function: A mousetrap can be used for other functions

[450] *Ibid*, pp.193-194.

[451] *Ibid.*

[452] *Ibid.*

[453] *Ibid*, p.195.

[454] *Ibid,* p.196.

[455] *Ibid.*

but, we can still know from observing the parts interacting that it was designed because "[t]he function of a system is determined from the system's internal logic: the function is not necessarily the same thing as the purpose to which the designer wished to apply the system.[456]

Behe underlines that "[i]nferences to design do not require that we have a candidate for the role of designer…We know that all of the things were designed because of the ordering of independent components to achieve some end."[457] With reference to that point, Behe thinks that there is no need to see the designer. A high degree of confidence can be made even when the designer is very remote just like archeologists discover.[458] So, we can come to conclusion that something was designed quite independently of the knowledge of the designer: "As a matter of procedure, that design can be held with all the firmness that is possible in this world, without knowing anything about designer."[459]

The difference between AD and ID is based on the historical claim of the term 'design'. Throughout the history of philosophy AD has been used for such a function that if one can show there is design in the universe then the existence of God will be automatically proved. Beside this, ID theoreticians primarily try to show that there is no alternative possible way to explain the complex and very special structure of nature without design. It seems the existence of the designer is the second step to be proved in their understanding. Between these two aims Paley is a fragile point. With Paleyan argument, the speculative explanations of Paleyan natural theology were replaced by a more refined design argument.

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[456] *Ibid.*

[457] *Ibid.*

[458] *Ibid*, p.197.

[459] *Ibid.*

After Paley, Behe as a new-generation design theoretician emphasizes that "the inference to design requires the identification of separate components that have been ordered to accomplish a purpose".[460] And they are aware of the fact that "the strength of the inference is not an easy matter to quantify".[461] In other words, dissimilar to AD's well-known analogical inductions, ID should involve a clear definition of design. In order to confidently reach the conclusion of design the number and the quality of the components that fit together to form the system are important. The resemblance is only slight, in such cases we can say it could have been designed, but we can not tell for sure. For instance Behe thinks that the moon might have been designed, perhaps by aliens, darkened areas look like eyes and a mouth, the face of a man. If the man in the moon had a beard, ears and eyeglasses we would conclude that it was designed. The designer is not important at that point. But the designed structure of the moon should satisfy the necessary conditions such as being complex, has a number of components and a special/extraordinary interacting system; because for Behe, "as the number of quality of the parts of an interacting system increase, our judgment of design increases also and can reach certitude. It is hard to quantify these things."[462]

According to Behe "biochemical systems can indeed be designed."[463] As an example he notes that the PTA, new activated protein, helps to stop heart attack. And similarly, using modified bacteria from replaced DNA can help diabetics by increasing insulin hormone. Using designed plants for getting more milk from cows are all instances for design. However there is a common characteristic of these samples: this

[460] *Ibid,* p.198.

[461] *Ibid.*

[462] *Ibid*, p.199.

[463] *Ibid*, p.201.

designing process just replaces the components of given structure. In other words "he or she did not produce a new system."[464] The biochemical systems using microevolution by mutation and selection can produce something but this can not be a new thing.

Furthermore, Behe interrogates the coherence between design and evidence. He rejects Richard Dawkins' point:

> Since Dawkins agrees that biochemical systems can be designed, and that people who did not see or hear about the designing can nonetheless detect it, then the question of whether a given biochemical system was designed boils down simply to adducing evidence to support design.[465]

However, Behe does not ignore the role of the laws of nature. The laws of nature can organize matter, force it to change: "If a biological structure can be explained in terms of those natural laws (mutation and natural selection) then we can not conclude that it was designed".[466] In fact, the point of Behe is that: there are some irreducible complex systems which can not be explained by the laws of nature: "…no direct, gradual route exist to these irreducible complex systems, and the laws of chemistry work strongly against the undirected development of the biochemical systems that make molecules such as AMP."[467] Then, even if the natural laws work against the development of these "irreducible complexities" they in a way exist. And in Behe's framework, although natural laws can not explain the computers, the criteria for concluding design can not be the

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[464] *Ibid*.

[465] *Ibid*, p.203.

[466] *Ibid*.

[467] *Ibid*. AMP: *Adenosine Monophosphate* is a nucleotide that is found in RNA and plays important role for intracellular signaling. Its delusive function is also used especially in diabetic products as bitterness suppressor. Additionally Behe considers 'cilium' as a fit sample for design. For details see: *Ibid,* Part II, pp.51-140.

same for inanimate systems.[468] For Behe distinctions can be made between biochemical systems. Some systems may have been designed, but proving their design may be difficult.

Behe advocates that the notion of design has changed through ages: Diogenes saw design in regularity of the seasons. Arguments to design based on the bare assertion of their "rightness". For Behe the argument that the world was designed was commonplace in both philosophy and science until Darwin. Compared with that of the Greeks, Paley's argument is much improved. According to Behe, Paley fulfilled the essence of the design argument as writing about discrete systems such as muscles, bones, and mammary glands that he believes would cease to function even if one of the components were missing: "Paley was taking about biological black boxes; systems larger than a cell. Paley's watch example is excellent because the watch was not a black box; its components and their roles were known".[469]

Behe considers that Paley expresses the design argument so well that he even earns the respect of dedicated evolutionists such as Richard Dawkins who reserved the first sentences of *Blind Watchmaker* for Paley.[470]

Behe claims that the main argument of Paley has actually never been refuted. Behe argues that the explanatory power of Paley's argument still keeps its undefeated characteristic since neither Darwin nor Dawkins, neither science nor philosophy explained how an irreducibly complex system such as a watch might be produced without a designer.[471]

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[468] *Ibid*.

[469] *Ibid*., p.212.

[470] Dawkins R., *Blind Watchmaker: why the evidence of evolution reveals a universe without design*, Norton, New York, 1996, p.5.

[471] Behe, *Ibid,* p.213.

Behe sees Hume's objection which is older than Darwin and Dawkins as a criticism on the general conception of design. To remember, Hume was criticizing design as an inductive argument. For Hume, a conclusion of design based on induction would require that we have experience of living things being designed. Hume thinks that we have not observed such designing in our world; we must look to other worlds for such an experience. And Elliott Sober makes the main point of Hume's objection clearer since for Sober, AD is an inference to the best explanation, not an inductive argument based on simple analogy. Additionally, now for Behe, Hume's objection is invalid since Behe believes that we can experience designed systems in advanced science, in other words after the biochemical explanations. That is to say, having not yet discovered a use for a structure does not mean that no use exists.

Behe holds that there is a close relation between the information we can grasp from nature and the notion of design. He says as follow: "Design theory has nothing to say about a biochemical or biological system unless all the components of the system are known and it is demonstrated that the system is composed of several interacting parts."[472] That means the notion of design is information-related. To illustrate, the Diogenes' illustration of the progression of seasons is not a good argument from design. If he had lived in Hawaii, his explanation of season would be different or would not be possible. I think this is the main difference between AD and ID. Intelligent design as a theory of information is much more developed by William A. Dembski (1960-).

4.3.2. Dembski and the Agency of Intelligent Designer

Detecting design is the core topic of ID theoreticians. Before Behe and Dembski, design was just thought as the progression of the seasons, day

[472] *Ibid,* p.229.

and night, etc. As mentioned above, Behe defines intelligent designer as the author of "irreducibly complex systems".

Similar to Behe, Dembski's point is to detect (intelligent) design reliably. For Dembski, we recognize design in what he calls "specified complexity" or "specified small probability." [473] That is to say, design in highly complex events means specifications. For instance, if we see a sequence of letters which means something, we would easily conclude that the sequence of letters is not only highly improbable, but it also matches an intelligible sentence according to a particular language. Although randomly drawing letters from a sack could produce words, this arrangement of an intelligent statement should not be expected to be the result of pure chance. It is more than chance; it is a product of design. Dembski tries to make the theoretical ground of this distinction between chance and design. In his dissertation for his PhD degree in Mathematics, he developed his "explanatory filter" to support that some occasions require more than chance and high probability.

Thus, on the one hand Behe's biochemical explanations and on the other hand Dembski's explanation through his probabilistic study make ID a theory of information. So ID becomes different from AD, and ID accepts the cooperation of function with complexity.

Dembski separates design theories from theories of intelligence and intelligent agency. He defines design as the negation of regularity and chance and so he avoids "prejudicing the causal stories".[474] According to Dembski, design denotes a *pattern*. However, as discussed in the previous section, Ratzsch's analysis presented us that this conceptualization was not sufficient to show design.

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[473] Dembski, W.A., *The Design Inference: Eliminating Chance Through Small Probabilities,* Cambridge University Press, USA, 2005, p.5.

[474] *Ibid*, p.36.

Dembski thinks that the effect of a design inference can be deduced from the limits of explanatory options, not from identifying a cause. To identify a cause we need more details. However, for Dembski, as a mode of explanation, design is not in the business of telling causal stories.[475] He argues for this distinction as follows:

> Although a design inference is often the occasion for inferring an intelligent agent, as a pattern of inference the design inference is not tied to any doctrine of intelligent agency. The design inference focuses on features of any event that bar it from being attributed to chance, not on the causal story underlying the event. To be sure there is a connection between the design inference and intelligent agency. This connection, however, is not part of the logical structure of the design inference. Certain events are properly attributed to chance, certain events are not. The design inference marks the difference, yet without prejudging the underlying causal story.[476]

For Dembski, there is a difference between statistical hypothesis and the design inference, because "the design inference, inferring design eliminates chance entirely, whereas statistical hypothesis testing, in eliminating one chance hypothesis, opens the door to others."[477]

And for Dembski,

> …to attribute an event to design is to say that regularity and chance have been ruled out. To be sure, design renders agency plausible. But as the negation of regularity and chance, design is a mode of explanation logically preliminary to agency.[478]

By this definition Dembski emphasizes the agency of the designer. He sees a difference between causality and agency. For Dembski the practical purposes of design are the elimination of regularity and chance.

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[475] *Ibid*, p.9.

[476] *Ibid*, p.8

[477] *Ibid*, p.7.

[478] *Ibid*,p.19.

Thus in the practices of designing process the agency is identified as the intentional activity of an intelligent cause or agent.[479]

To illustrate the need of agency and the superior situation of design compared to chance and regularity Dembski uses the *Explanatory Filter*:

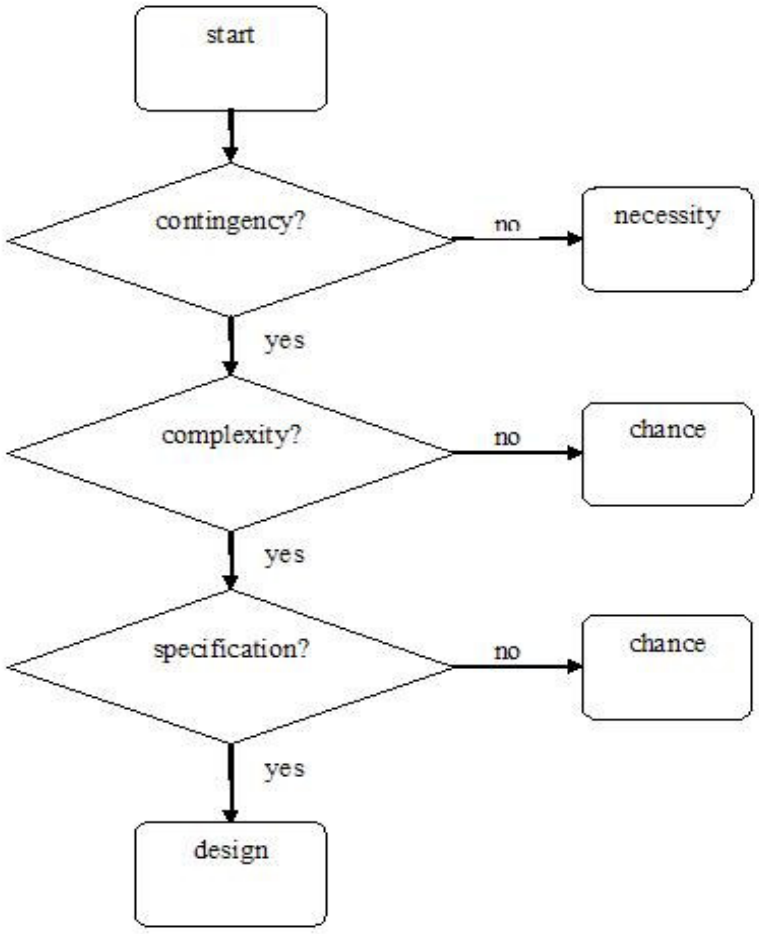

Figure 1: The Explanatory Filter.[480]

I will not examine the application of his explanatory filter in detail. However, this filter is meant to tell us whenever we want to explain an

[479] *Ibid*,p.20.

[480] *Ibid*, p.37.

event, we must choose from three competing modes of explanation. These are *regularity*, *chance* and *design*.

To attribute an event to chance is, for Dembski,

> …to say that probabilities characterize the occurrence of the event, but are also compatible with some other event happening. To attribute an event to design is to say that it can not reasonably be referred to either regularity or chance.[481]

Dembski states that the Explanatory Filter is a suitable tool for understanding intelligent agency because the intelligence of design means more than other types of design. In his another essay he says intelligent design infers the agency of intelligent designer comparing the other types of design namely "optimal" and "apparent design".[482] In Dembski's terminology, "apparent design refers to something that looks designed but really isn't."[483] On the other hand, "optimal design is perfect design and hence cannot except in some idealized realm."[484] Optimal design refers to absolute perfection in Platonic level. Unlike these types of design, according to Dembski's model, intelligent design requires an agency between regularity and chance. In this framework, there is an order of priority of explanation: "Within this order regularity has top priority, chance second, and design last".[485] It does not mean that this order is preferable or better. "As a matter of explanatory priority, we look to regularity and chance before we invoke design." [486] The key feature here is that the casual agency of designer has an additional power in terms of determining the

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[481] *Ibid*,p.36.

[482] Dembski, W.A., Kushner J.M. (eds.), *Signs of Intelligence: Understanding Intelligent Design*, Brazos Press, Michigan, 2005, pp.7-8.

[483] *Ibid.*

[484] *Ibid.*

[485] *Ibid*,p.38.

[486] *Ibid.*

realization of a particular event selected from a range of possibilities. The logic of explanatory filter is "purely eliminative –eliminating law and chance."[487] The method of eliminating chance in the presence of small probabilities (specification) requires an intelligent agency. Specification warrants design inference.[488]

The scope of Dembski's argument seems to be scientific; however that delusion is imposed by the wider usage of the term "chance". As Dawes criticized, the broader usage of the word chance has twofold intention: eliminating all naturalistic alternatives to design, involving the probabilistic ground into the account of Intelligent Design.[489] In other words, I argue that Dembski tries to show that naturalistic approach of science is limited to the broad range of probabilities. Dembski leads reader to think that the deterministic and materialistic world of scientific naturalism is not capable of taking small probabilities into consideration. On the other hand, I agree with Dawes that, since Dembski's rival, Darwin, emphasized the probabilities in evolution[490], Dembski tries to cause us to perceive that intelligent design is as "scientific" as Darwinian Theory.

[487] Dembski, *The Design Inference,* p.109.

[488] Dembski, *Mere Creation*, p.97.

[489] Dawes, G.W., "What is wrong with Intelligent Design", *International Journal of Philosophy of Religion*, 61, 2007, p.76.

[490] *Ibid*.

CHAPTER V

CONCLUSION

An analysis of the arguments from design to intelligent design shows that there are various types of design arguments. This dissertation aims to highlight that design arguments might not be categorized only as a result of the diverse meanings of 'intelligence' and 'design' in theological and philosophical discourses but also analyzing design arguments requires a historical perspective by taking the birth of monotheistic religions into consideration. Furthermore there is no definite usage of the notion of design. Many scholars prefer to analyze design arguments regarding the realms of historical periods. As I have discussed in detail in the second chapter of this dissertation, the idea of order was used in mythologies as the first attempts of cosmological explanations. Until the birth of monotheistic religions, the classical form of design was proposed by first philosophers. Roughly speaking, what the early Greek philosophers meant by design was an organizing principle in nature. Until Plato argument from design was cosmological. Plato's explanation of design indicated its theological aspects and he established the first example of the argument from design which is based on the necessity of an external agent. Although Plato's conception of God is not so clear, it seems to be that a designer is the causal principle of order and natural events. Aristotle developed an internal teleological argument from design. Aristotle's additional value to the problem is his conceptualization of natural laws. In Aristotle's model, on the one hand, there is a Prime Mover as a designer. On the other hand, natural processes work in accordance with natural laws. This teleological approach to the argument from design was replaced by the religious oriented one in the medieval period. St. Thomas used the argument from design and draw attention to the relevance of faith and reason. That is to say, the argument from design not only makes some inferences from the

observable nature, but also makes commitments to the unobservable, namely God. In accordance with the Christian epistemology, the gap between nature and divine in the argument from design was reconciled by the "sense of divine". The natural light of reason that belongs to all man, in fact, is capable of understanding the nature of God from nature. I have mentioned that, the role of argument from design in that period was deducing the attributes of Christian God from nature. Thus, the medieval philosophers have any contributions to enhance the content of design; rather they elaborated the concept of intelligence within the limits of Christian framework.

The heritage of medieval philosophers was used by British natural theology. Since the title of this dissertation underlines reconsideration of William Paley, I have discussed, in detail, this specific theology from a critical point of view. Throughout this analysis I hoped to have clarified the differences of the method of natural theology between theology, philosophy and science. In general, the defenders of design arguments are not so much interested in philosophical analysis of meaning of 'design', rather they focus on the attributed values of design such as power or agency. William Paley published *Natural Theology* after Humean objection. However, there are many comments as to whether or not Paley defended himself from Humean criticism.

I have analyzed the *Natural Theology* of Paley into three sections: analogies, mechanical parts of living organism, and the personality of the Deity. I consider Paley's design argument is an argument *to* design rather than argument *from* design. It is so because the attributes of God plays a crucial role in his *Natural Theology*. The attributes of Divine existence are the premises of argument to design. They must be justified by the individual instances of nature. The instances are collected from nature regarding the attributes of divine being. The investigation of argument to design concentrates on particular samples, namely organisms, organs, parts of plants and animals, etc. William Paley, as a natural theologian

focuses mostly to show the traces of Deity in the very particular parts of living bodies such as vessels, bones, etc. The shift from intelligence to design is produced by Paley's *Natural Theology*. In this sense, the arguments from design are the arguments that the intelligence of design is the consequence of the argument. Beside this, the argument to design means that they are the arguments that the intelligence of design is the premise of the argument.

The famous watch and telescope analogies and the second part of Paley's analysis are crucial in order to understand the contemporary intelligent design project since ID theoreticians pursue Paley's explanations of the organisms. The remarks on Paley according to many commentators raise a better understanding of his argument to design. Paley's natural theology between Humean and Darwinian criticism leads to asking more questions about the intelligence of design. This results in emphasizing intelligence of design because *intelligence* refers to the sum of the attributes of divine agency. It is right to define that attributes are not scientifically determined, but a faculty our minds. Paley is the leader in constructing the new relation between design and designer. This connection was theological until Paley. After Paley, it is reduced to studies of biological sciences. Then Paley's argument to design plays a role between classical and contemporary debates about design.

Paley's concern is to construct an argument for promoting belief in God. However, while doing this, I think, he is sure about that observing nature necessarily leads to the belief in the existence of a Deity because there was not a good naturalistic explanation like Darwinian theory. Paley tries to explain the unity of purpose under the variety of expedients, the intelligence of an artificer and the evidences of contrivance. In this respect, argument to design does not deal with the origin of the idea of God, it is rather interested in detecting traces of the Deity. Purpose, complexity and the benevolence of nature are the main themes of Paley's argument. Related with these themes, Paley's argument to design has metaphysical,

epistemological and ontological implications. In the analysis of Paley's samples from nature, I come to such a conclusion that the relation between parts and the whole, the hierarchical interaction between the natural components, the appropriate utilities of organs in the animal bodies, the will to live, and the adaptive structure of environment are all considered by Paley before Darwin. However, it should be kept in mind that Paley's explanations are for natural theology. For instance the mechanism of nature is not considered as a natural law. That is to say, natural laws are all depended on the agency of intelligent designer, and they are meaningful since there is a law-maker Deity in nature. The God of Paley as the governor of world is active and present. Thus, the concepts of mind and intention are all used in relation to the Deity in Paleyan framework. In this respect the highest order presents "causality" in terms of designer.

The remarks on Paley's method have also been considered in order to present the role of Paley between the classical and recent versions of design. Paley's method mainly is based on the concept of *contrivance*. In this sense, Paley claims that there is no need to see the artist for concluding that nature is designed. Paley, against Humean objection, defends that the invisibility of intelligent designer does not weaken the argument. The imperfections of nature do not imply that designer is not intelligent. The usefulness of the organs and the internal configuration of the mechanism of nature are all presenting the evidential acceptance for the existence of design, and designer.

Remembering Humean objections, Sober states that accepting design argument of Paley as the "inference to the best explanation" can save Paley's argument being a subject of Humean objection. As I have mentioned, inference to the best explanation in Lipton's terminology emphasizes the changing powers of explanations in terms of likeliness and loveliness. Therefore Sober's application of the likelihood principle to the Paley's design argument makes Paley's explanations comparable to the Darwin's. I have mentioned those remarks due to the fact that the recent

discussions between ID proponents and Darwinians makes us reconsider the philosophical implications of their explanations.

The concept of design becomes more problematic after Paley. If it is concluded that medieval philosophy carried the mythological-cosmological origin of design to theology, it can be assumed that Paley transformed the theological concept to the scientific area. Since theological experience of nature sees a deeper rationality, science can not decide whether or not theological claims have truth value. Moreover, my main concern is to describe the philosophical-conceptual background of the design arguments. Design is meaningful in relevant to other concepts such as purpose, function, perfection, pattern, complexity.

Following Paley, ID proponents defend that design argument should be considered as a hypothesis against Darwinian natural selection and gradualism. Their hypotheses and arguments of special creation are different from the hypotheses for the argument from design in terms of the meaning of design. Since throughout the history of the design arguments, design is used analogously with order, the concept of order presupposes the intelligent background of the nature. In this sense, design arguments mean to a notion of teleology modified by a superior agent by means of that such a purposeful design should imply more than order. In this context, order, structure, and pattern are all considered as the consequences of designing activity. Additionally, arguments from design do not accept function equal to organic adaptation. For instance Paley considers adaptation of means to ends as the strongest evidences for the existence of designer God.

The main concern of Intelligent Design theoreticians is to set up a safe and sound way for William Paley's argument to design in science. In this respect, ID theoreticians explicate the distinguishing characteristics of special complexity of designed nature. Secondly, in order to be more convincing than Paley ID followers try to provide a "scientific" explanation for the intelligence of design. In other words, ID proponents try to convince

us that their explanations of design are scientifically acceptable. Neo-Paleyan ID proponents' "wedge strategy" proposes that scientific naturalism is in conflict with theology. The conflict between science and theology can be solved by accepting intelligent causes as much as natural causes. ID, as a research program, tries to broaden the meaning of reality because they consider that metaphysical aspects are ignored by methodological naturalism. The main formulation of ID proponents is to raise arguments against evolution because they think the principles of evolution are not capable of explaining entire causes in factual world.

Neo-Paleyan creationists decided to follow his arguments against evolutionary theory. Since Darwinian approach eliminates the necessity of an agent, the naturalistic picture of nature is considered as unsafe by creationists. ID aims to be creation science. They aim to modify the ruling naturalistic model of science. Thus, the general position of this dissertation in this debate is this: The proper philosophical criticism of design arguments can be realized not by naturalization of design but by the neutralization of intelligence after Darwin. The intelligence of design is an attribution related to our world views. The notion of design, which supposes to explain the action of supernatural agency, carries traditional qualities attributed by religions. In design arguments the aspects of observable nature are replaced with the invisible God. However, it does not serve the idea of God. It does not explain the purpose of divine action in nature, if there is any.

After Darwinian Theory, the theological motive of Paley's argument to design is no more defendable. ID theoreticians pay attention to this idea and they concentrate on showing that the position of designer is not redundant in terms of special design. Since Darwin's nature is considered as the result of mechanic and random process which does not need any governing principle or supernatural power, the neutral meaning of teleology means that there is no observable plan and purpose in nature. The general and particular samples of natural selection and evolution are observable

but it does not result in thinking that they are designer's projecting products. Thus ID concentrates on representing that the causal background of nature requires a richer understanding of nature than scientific naturalism allows. ID proponents propose that divine action of designer does not violate natural laws. Consequently, their position states that the signs of intelligent design are in harmony with the creating activity. ID theoreticians primarily try to show that there is no alternative possible way to explain the complex and very special structure of nature without design.

Throughout my dissertation I conclude that analyzing Paleyan design argument presents important metaphysical and epistemological remarks. Considering the progression of design arguments, Paley's argument to design specifically analyzes and exemplifies the *intelligence* of design. Since design without purpose might not imply more than some kind of a natural order, Paley emphasizes the intelligence of design in terms of natural theology. Paley observes animal bodies and makes concentrated explanations of the functions parts of organs. So Paley's argument to design goes further than explaining the functions of natural components. Moreover, the proper functions of organs are considered by means of the intelligence of designer. In Paleyan framework design is meaningful in terms of designer.

It is my final observation that, since theological interpretations of design arguments loses its power after Darwinian Theory, ID theoreticians have to modify Paley's fundamental concepts such as perfection, complexity, function, harmony. Behe and Dembski, who are the leading thinkers of ID movement, revisit the meaning of design and naturalism of science in order to cope with Darwinian explanations. ID theoreticians must figure out new concepts inferring design. Since naturalism of scientific activity and the explanations of Darwinian Theory after Paley forced ID theoreticians to leave the theological implications of design argument, Behe used "irreducible complexity" and Dembski emphasized the higher

probability of design, namely “special information” of design. Parallel to advances in science, ID theoreticians should revise concretely meaningful, scientifically testable, philosophically acceptable context for design. However, I think that the philosophical status of the intelligent agency of designer is still a big problem for the design arguments.

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APPENDICIES

APPENDIX A
TURKISH SUMMARY

WILLIAM PALEY'IN *DOĞAL TEOLOJİ*'SİNİN YENİDEN ELE ALINIŞI: TASARIM ARGÜMANLARINDAN, ZEKİ TASARIMA BİR ANALİZ

William Paley'in *Doğal Teoloji (Natural Theology)* adlı çalışmasının yaklaşık 200 yıl sonra tekrar basılması ve tartışma konusu olması bir tesadüf eseri değildir. Aksine bu yoğun ilgi, Darvinci doğa açıklamalarının biyoloji biliminin sınırlarını aşarak felsefi bir nitelik kazanmasına karşın zeki tasarımcı açıklamayı destekleyen çevrelerin Paley'in kitabında ortaya koyduğu argümanlara sahip çıkmasının bir eseridir. William Paley'in tasarım argümanı inanışlara dayalı tarafgirlikle Zeki Tasarımcılarca duygusal referans noktası olarak alınmanın ötesinde açıklama modelinin özgünlüğü tartışması, kullanılan argüman düzeninin yeterliliği, konuyu ele alış biçimindeki metafizik ve epistemolojik zemin ve Tanrı kavramına getirdiği nitelendirmeler açısından felsefi olarak sorgulanmayı hak etmektedir.

Bu çalışmanın asıl amacı Paley'in klasik ve modern tasarım argümanları arasında bir kırılma noktası olduğunun ortaya konulmasıdır. Öyle ki Paley'in kitabının başlığında hem doğal hem teoloji sözcüklerini yan yana kullanılması beslendiği zengin teolojik ve felsefi gelenek kadar, ortaya konduğu dönemdeki temel düşünsel ve bilimsel eğilimleri de yansıtır. Paley'in iddiası "Doğal Teoloji" başlığı altında doğanın görünen örneklerinden tanrının varlığına dair kanıtların ortaya konması idi. Bu iddia salt bir Tanrı kanıtlaması oluşturmaktan çok doğanın o dönemde yaygın biçimiyle nasıl ele alındığının da bir göstergesidir. Nasıl olmaktadır da kendisini birebir bilemediğimiz, göremediğimiz, duyularla tecrübe edemediğimiz metafizik bir kavram olarak Tanrı doğanın görüngülerinden

çıkarsanacaktır? İşte bu temel iddia halen zeki tasarımı destekleyen çevrelerin kullandığı temel düşünsel zemindir, diğer yandan da onlara karşı çıkanların sorduğu temel sorudur. Halbuki Paley öncesinde Tanrının varlığına dair açıklamalara/kanıtlama denemelerine baktığımızda daha çok Tanrının varlığına düşünsel olarak kanaat getirmek, hakkındaki deneyimlerimizin yetersizliğinden hareketle varlığını spekülatif olarak kabullenmek, kavramsallığının içini doldurmak söz konusu idi. Dolayısıyla Paley, felsefenin teolojiye, teolojinin felsefeye karıştığı çağların son temsilcisi, bilimi felsefi teolojiye yani o dönemin kullanımı ile doğal teolojiye alet eden bir çağın ise başlangıç noktasıdır.

Kuşkusuz, doğada belli türden bir düzenin varlığı, doğayı oluşturan nesnelerin ve canlıların birbirleri ile ilişkilerinde karşılıklı ve uyumlu bir işleyişin gözler önünde olması, evrenin yapısı karşısında insanın hayreti ve açıklama gayreti ilkçağlardan itibaren felsefi açıklamaların bel kemiğini oluşturmuştur. Mitolojik motiflerle süslü olan bu ilk açıklamalarda doğanın başlangıcı ve sonu, hareketin neliği, nesnelerin düzensizlikten düzene geçişlerinin belli bir ilkeye dayanılarak açıklanması söz konusudur. Bulunmak istenen ve kendisine dayanılarak evrendeki ve doğadaki fiziksel oluşumların açıklanmasına çalışılan ilk neden, ilk madde ya da töz anlayışı düzenin yapıcısı konumunda bir işlev ile tanımlanmaktaydı. Bu açıklamaların en önemli özelliği tek tanrılı bir dinin ortaya çıkmasından çok önce ortaya konulmaları bakımından tasarım argümanının ilk ve naif biçimlerini teşkil etmeleridir. Platon ve Aristoteles tarafından kendisine belli bir teleolojik bakış kazandırılana kadar tasarım nosyonu erken dönem Yunan düşüncesinde sadece kozalite anlayışı içinde bir anlam ifade etmektedir. Ayrıca, *zeki* (*intelligent*) ve *tasarım* (*design)* kavramları da Doğal Teoloji'nin ortaya çıkışına karşılık gelen 18-19. yüzyılların kullanımından kuşkusuz daha dar kapsamda işlenmiştir. Antik çağ felsefesinde zeki tasarım ancak doğanın harmonisinin bir diğer adı olabilir. Tanrının varlığının bir delili olarak görülmesi de kavramsal kullanımın bu boyutu ile sınırlıdır. Örneklendirmek gerekirse, Hesiod'un *Theogony*'sinde

sevgi (*eros*) başlangıçtaki kaostan düzene geçişin bir ilkesi olarak görülmektedir. Hatta bu düzen anlayışı sadece zamansal ve yapısal bir geçiş değil, aynı zamanda devamlılığı ve kendi içinde işlerliği olan bir düzenin oluşumu anlamında kullanılmaktadır. Hesiod'un mitolojik karakterli açıklamasından sonra Miletos filozoflarının *arkhe* arayışı dikkatimizi çeker. Miletos okulunun ayırt edici özelliği düzeni açıklamakta kozmolojik işlevlerine dikkat çektikleri elementleri açıklama çabalarıdır. Böylelikle, ruhu derin, her zerresi canlı bir dünya anlayışından zamanla maddeci bir anlayışa geçişin ilk örnekleri görülmektedir. Bu düşünsel değişim tasarım argümanının ilk biçimlerine de yansır. Böylelikle görünen ile görünemeyen arasındaki ilk ayrımlarda ortaya çıkar. Anaksimendros'un soyut bir kavrama büründürdüğü kurucu ve düzenleyici ilke olan *aperion*'u bu bağlamda bir ilktir. Evrenin mükemmel simetrisine dikkat çeken kozmogoni açıklamaları ile Anaksimendros evrenin düzenini sağlayan ilkenin gözlemlenebilir olduğuna kanaat getirmiştir. Hatta Thales'ten bir adım daha ileri giderek "doğa yasası" olarak dünyadaki düzenin ortaya konmasından ilk bahseden olmuştur. Anaksagoras ise doğadaki tasarımın "zeki" bir tasarım olduğuna vurgu yapar. Fragmanlarında dile getirdiği *nous* doğadaki her şeyin birbiri ile ilişki içinde olduğunu, varlık sebeplerinde şaşmaz bir düzenliliğin gerektirdiği zeki gücün diğer adıdır. Nous, her şeyin birbiri ile karıştığı ve bir bütünlük oluşturduğu doğada bunları yöneten yetkin bir temeldir. Anaksagoras'ın insan zekası ile ilintili olarak kullandığı nous kavramı böylelikle doğadaki tanrısal düzene yapılan ilk analojik açıklama olmaktaydı. İlahi bir rasyonalitenin temsili olarak zeki tasarımın doğada açıklanması çalışmalarına Stoalılar önayak olmuşlardır. Doğadaki düzenin ve mükemmel uyumun mekanik bir zeka ile açıklanmaktan çok ancak ilahi içerikli bir zekaya uygun düşebileceğinin ilk örneklerini veren Stoalılar bu görüşleri ile Tanrı'nın zeki bir tasarımcı olarak ele alınmasında dini motiflere dönüşün müsebbibi oldular. Ancak dikkat çekmek isterim ki, Stoalılar ilahi olanla reel olanın, yani görünen doğa düzeni ile görünmeyen ama düşüncede var olan kudretli, zeki ve ilahi Tanrının bir ve aynı

olduğunu, bunların aynı varlığın iki yüzü olduğunu göstermeleri tasarım argümanının gelişim çizgisini görmek bakımından önemlidir.

Platon tarafından ilk ve olgun anlamıyla felsefi bir kavrama dönüştürülen doğanın zeki tasarımcısı olarak Tanrı, her şeyden önce bir *güç* idi. Doğada varolan tasarımın mükemmelliğine çeşitli diyaloglarında vurgu yapan Platon için bu mükemmellik bir güç olarak zekayı gerektiriyordu. Keza, Platon'un Tanrısı Demiurgos nesnelerin şimdiki şekillerini onlara kazandıran bir marangoz edasıyla ezeli biçimde hazır bulduğu formları nesnelere giydiriyordu. Burada doğal teolojinin altını önemle çizdiği bir ilişkinin, nizam ve gaye ilişkisinin ilk olgun örneklerini görüyoruz. Platon'a göre tasarımlanmış doğanın hem tasarımlanmış olduğunun hem de zeki bir tasarımın sonucunda işlediğinin göstergesi doğadaki düzenin(diğer adıyla nizamın) belli bir gayeye göre hareket etmesidir. Düzen ile gaye arasındaki uyum ancak zeki bir tasarımcı olarak Tanrının işi olabilir. Böylelikle Platon tasarım argümanının teolojik temellerini ortaya koyduğu kadar teleolojik temellerini de kavramsallaştırmaktaydı. Öyle ki tasarım argümanı literatürdeki çoğu çalışma tarafından teleolojik bir argüman olarak da nitelendirilmekte ve bu başlık altında incelenmektedir. Burada dikkat çekilmesi gereken bir diğer nokta argümanın salt teolojik bir argüman olmaktan daha fazlasını dile getirdiği, özellikle Paley'in formundaki argümanın kavramları ele alışı açısından salt bir teleolojik argüman olamayacağıdır. Zira, argümanın teleolojik olma niteliğine vurgu yapılmasının bir diğer sebebi Platoncu açıklamanın Aristoteles tarafından gaye kavramı bağlamında bir adım ileri taşınmasıdır. Aristoteles, doğadaki nesneler ile insan yapımı nesneler arasında kurduğu analojiden hareketle doğal nesnelerin içinde insan yapımı nesnelerde yer almayan hareket ettirici ve düzenleyici bir ilke bulunduğunu ileri sürdü. Böylelikle doğadaki özgün ve uyumlu hareket nesnelerin kendi içlerinde yer almakta ve dışarıdan bir güce ihtiyaç duymamaktaydı. Ancak Aristoteles'in tasarım açıklamasında mükemmellikle zekanın el ele yol almasında ilk hareket ettiriciye her zaman

ihtiyaç duyulmaktaydı. Zeki tasarımcının var olması doğanın bütünlüğünün garantisi idi.

Buraya kadar özetlediğimiz klasik açıklamaları, dinsel motifli açıklamalar izledi. Zeki bir tasarımcı olarak Tanrı'yı kurgulamanın kaçınılamayacak teolojik yorumlarına bu çalışmada girmek uygun olmayacağından daha çok felsefe tarihinde izlerini bulabildiğimiz kadarıyla konuyu şu bağlamlarda ele aldım: Bunlardan birincisi Aquinas'ın argümanı ele alış biçimidir. İncil'de doğanın "tanrının elişi" olarak görülmesi ve her zerresinde izlerinin bulunabileceğinin ifade edilmesine dayalı olarak kozmolojik ve ontolojik Tanrı kanıtlarının yanı sıra orta çağ felsefesinde zeki tasarımcı olarak Tanrının nasıl ele alınabileceğini de tartışmıştır. Aquinas'ın Tanrı kanıtlamalarında Beşinci Yol'u tasarım argümanının doğal teoloji bağlamında ele alınışının ilk olgun örneği kabul edilmektedir. Aquinas doğada gözlemlediğimiz kadarıyla hem bir tasarımın hem de zeki bir gücün etkin olduğunu kabullenmemiz gerektiğini söyler.

İkinci olarak, tasarım argümanının Aquinas sonrasında din ile felsefe arasında nerede durduğunu açıklama gayretinde bulunmak olasıdır. Ben burada tasarımı "gösterme"nin veya "kanıt"lamanın ötesinde "zeki" kavramına vurgu yapmanın daha yerinde olduğunu savladım. Konu üzerindeki çoğu tartışma, Tanrının kanıt(lar)ının olamayacağını, eğer varsa bile bunun kolayca gösterilemeyeceğini, daha başka deyişle, kanıtlamaların konusunun duyulur deneyimlerin ötesinde bir varlık alanında olabileceğini belirtmektedir. Aquinas da zaten Tanrı'nın bir nesne gibi gösterilebilirliğini kabul etmemekte, daha çok onun zatının etkileri bakımından bilinebilirliğine –çoğu Hıristiyan filozof gibi- vurgu yapmaktadır. Böylelikle daha sonraları Paleyci anlamda doğal teologlarında kullandığı biçimiyle argümanın ampirik yapısı duyulur olan/olmayan ayrımından çok, aşkın bir nedenin varlığının duyulara konu olan ilişkiler ile onanması biçiminde kavramsallaştırılmaktaydı. Doğal teolojinin ampirik olma iddiası bu tez çalışmasının altını çizdiği bir başka bağlamdır.

William Paley'in çağına geldiğimizde, 19. yüzyıl İngiliz bilim çevrelerinde özellikle Hume'un klasik tasarım argümanlarına yaptığı eleştirilerin etkili olduğunu ve Hume'a karşılık doğadan hareketle Tanrı'nın kanıtlanmasına yönelik çabaların kraliçe destekli olarak hız verildiğini görüyoruz. Konumuz bağlamında Paley'in çağının tanrı kanıtlamalarına yaklaşımı şu şekildeydi: İnsanın doğa ile ilişkisine baktığımızda insan zihninde tamamlanmayan, sürekli soru konusu olarak kalan, doğanın deneysel yanı ile akılsallığı arasında bir boşluk vardır. Bu boşluğun doldurulması da filozofların işidir. İşte, doğayı yaratıcı bir zekanın mükemmel tasarım ürünü olarak temellendirmeye dönemin ateistik ve materyalistik sapmalarının önüne geçmek adına hız verilmiştir. Böylelikle doğal teoloji doğaya yöneldiği kadar teolojik kaynaklara da sadık kalarak Tanrının kavramsallaştırılmasında, kabul edilebilir ve kolay paylaşılır bir yol bulmak adına görevlendirilen bilim insanlarının çalışmalarının ortak adı olmuştur. Bu stratejide, insan aklı kısıtlı sayılmakta, Tanrının varlığının bilinebilirliği ise doğrudan değil vasıtalı bir bilginin nesnesi olarak kabul edilmekteydi. Özellikle çalışmalarının felsefi odağını oluşturan Lockeçu etkiyle teologlar kendilerine bir çıkış yolu aradılar.

Tasarım argümanına getirilen eleştirilerden en sistemli olanı David Hume'un *Doğal Din Üzerine Diyaloglar*'ında dile getirdiği eleştiridir. Hume adeta doğal teologların çıkış yolu arama çabalarını yok edercesine felsefi temelleri açısından bu argümanı sarsmıştır. Zamansal olarak William Paley'in argümanının ortaya çıkışından önce yazılan *Diyaloglar*'da Hume, Paley öncesi tasarım argümanlarına birkaç açıdan karşı çıkmaktadır. Bunlardan ilki, Hume'un dinlerin karakteri üzerine kendisinin genel düşüncelerinden kaynaklanır. Öyle ki Hume için din ve dini temelli tanrı kanıtlamaları bir tür kendi içinde kapalı düşünce sistemine dayanır. Bu sisteme dayanarak ortaya konulmak istenen kanıtlar ile kanıtlanacak olanlar arasında yerleşmiş olan bu rasyonalite dini inançların felsefenin diğer bilgi ilişkilerini ele alması tarzında izah edilemez. Dini inançların bilgi teorisi açısından ele alınışında skeptik yaklaşımı savunan Hume için

inançların dayandığı doğaüstü zemin, doğadan kanıtlarla gerekçelendirilemez. Dini inançların epistemolojisini özetleyen bu ayrıksılık, Hume'a göre inançların boş ve savunulamaz olduğu anlamına da gelmez; lakin ona göre dini duygular ve inanışlar insanın içgüdüsel olarak sahip olduğu temel düşüncelerden biridir. Doğanın bir parçası olan insanın kendi tabiatında kavramlara ve akılla temellendirilmeye ihtiyaç duyulmayan bazı duyuşlarının olduğu kabul edilebilir. Hume'un amacı, tasarım argümanı eleştirisinde de göreceğimiz gibi sınırlı bir deizm ile dini inancın epistemolojik olanaklılığını daraltmak ve ampirik alandan çıkarmaktır. Dinin felsefi bir spekülasyon nesnesi olmaktan uzaklaştırılması amacıyla Locke'dan hareketle dinin akılla kavranabileceği iddiasında bulunanlara karşı çıkmaktadır. Böylelikle, özetle, Hume'un birinci eleştirisi din-felsefe ilişkisi üzerine olmaktadır. Tasarım argümanına bu genel yaklaşımın yansıması ise doğal teolojinin aklı "doğal ışık" olarak görme eğiliminin eleştirisi olacaktır. Daha başka deyişle, Hume kendisinden önce örnekleri görünen tasarım argümanlarının ampirik söylemlerini ve çağdaşı Hıristiyan doğal teoloji çalışmalarının akıl anlayışını, inancın ve Tanrının ampirik yöntemle bilinebileceğini ve dini söylemin reel dünya düzleminde her insana mahsus olan aklın doğal ışığı ile aracısız kavranabileceği tezlerini çürütür.

İkinci olarak, bu genel eleştirisinden hareketle, Hume'un tasarım argümanlarını topluca reddetmekten çok "sınırlandırmak" arzusu içinde olduğunu görüyoruz. İkinci eleştirisi de bu bağlamda, tasarım argümanının argüman olarak kendisinden ziyade, doğal teoloji başlığı altında dine alet edilmesi noktasındadır. Çünkü doğal teoloji çalışmalarının altında yatan bir diğer niyet doğanın tasarımlanmış olmasının insanlığın genel "iyiliği" için zekice planlandığıdır. Oysa ki Hume, insanlığın tarihi ve akli tecrübesi ile deneyimlediği dünyada böyle bir uzlaşımın olmadığını göstermeye çalışır. Doğal teoloji için Tanrının varlığı varılmak istenen "doğal" bir sonuç olmaktan çok argümanın öncülü olarak kullanılmaktadır.

Üçüncü olarak Hume'un eleştirisi tasarım argümanlarının çoğunlukla kullandığı insan zihnine yapılan analojidir. Hume yapılan analojide benzerliklerin aynı sebeplerden kaynaklandığını göstermediğini savlar. Dolayısıyla her analoji eksiktir, zayıftır. Hume'un dördüncü olarak doğal teolojiye yaptığı eleştiri ise "tecrübe" kavramı ile ilgilidir. Çünkü tasarım argümanlarında ve Paley öncesi doğal teoloji çalışmalarında Hume'un eleştirdiği gibi tecrübe edilebilir alan ile edilemeyen alan arasında bir bağıntı kurulmaya çalışılmakta, bizatihi tanık olunmamış oluşumlar üzerinde fikir yürütülerek genel bir tablo çizilmektedir. Hatta bu genel tablo tasarım argümanında zeki bir tasarımcının eseri olarak gösterilmektedir. Böylece, doğada meydana gelen oluşumlar doğanın dışındaki bir nedene bağlanmaktadır. Bu çıkarsama (*inference*) da tasarım argümanlarındaki analojinin kesin bir açıklama olmaktan çok olabilecek "en iyi açıklama çıkarımı" (*inference to the best explanation*) olarak algılanabilir.

David Hume'un eleştirilerinin ne kadarının Paleyci zeki tasarım argümanını zayıflattığı tartışma konusu olsa da Paley'in klasik ve çağcıl tasarım argümanları arasında bir kırılma noktası olduğunu söylemenin felsefe tarihi açısından nedenleri buraya kadar anlatılanlardan kanımca çıkmaktadır. William Paley çalışmasında Humecu eleştiriye herhangi bir yanıt vermemektedir. Lakin kendisinin çalışmasının klasik tasarım argümanlarından farklı olduğuna ve Humecu eleştirilere bu bağlamda karşılık gelmediğine inandığını söyleyebiliriz. William Paley'in çalışmasının pek çok farklı bakış açıları ile incelenebileceğini düşünebiliriz. Ben çalışmamda kitabı başlıca iki temel alanda ele aldım. Burada ölçüt, dini açıklamalar ile biyolojik-metafizik içerikli felsefi açıklamaları ayırmaktır. Paley kitabının son birkaç bölümünde Tanrı'nın zatı ve sıfatları üzerine temellendirmelerde bulunmaktadır. Bu durum kendisinin tasarım argümanını bilim felsefesi açısından güçlü kılmaktan ziyade daha çok teolojik bir argüman olarak anlaşılması sonucunu doğuruyor. Zaten, Paley sonrası Zeki Tasarımcı çevreler de bu gediği görerek Tanrı'nın zatı üzerine konuşmaktan çekinmekte ve onun Tasarımcı (*designer*) olarak

vazgeçilmezliğini önemsemektedirler. Paley'in kitabında yapılabilecek ve çalışmada da başlıklarını ona göre düzenlediğim ayrım ise argümanın kuruluşu ile argümanın doğadan toplanan örneklere uygulanması üzerinedir. Paley'in tasarım argümanının ayırt edici özelliği de bence bu noktada gün ışığına çıkmaktadır. Çünkü Paley açısından, Humecu eleştiride dile geldiği gibi basit bir analoji söz konusu değildir. Basit analojiden şunu anlamalıyız: "Eğer bitkilerin köklerinde ve gövde cidarında su dolaşıyorsa benzer biçimde insanların damarlarında da kan dolaşır." Halbuki Paley açısından anoloji bununla kısıtlı değildir ve bu bağlamda Humecu eleştiriye konu olduğu gibi çok da "zayıf" değildir. Paley'e göre eğer bir tasarım tasarımcıya muhtaçsa, yani tasarımcısız tasarım olmazsa doğanın fark ettiğimiz saat gibi adeta tıkır tıkır işleyen düzeni de bir yapıcıya ihtiyaç duyar. Bu tasarımcı ayrıca zeki olmak durumundadır ve her zeka bir faili, bir bilinç sahibini çağrıştırdığı için Tanrı zeki bir tasarımcı olarak vardır. Bunu sadece zamansal ve nedensel bir başlangıç sorunu olarak görmekten öte, Paley, Tanrının zeki tasarımcı olarak varlığını dünyanın, doğanın ve genel anlamda evrenin her türlü işleyişinde içkin ve faal olarak tasarlar. Dolayısıyla Paley açısından tasarım argümanı Tanrı'nın varlığını kabul ederek onu kanıtlamaya çalışmaktan çok, doğanın bir tasarım ürünü olduğunu; hem de zekice tasarlandığını göstermeye uğraşır.

Paley'in tasarım argümanının kendisinden önce gelen argümanlardan çok farklı olduğuna çalışmamızda ayrıntıları ile yer verildi. Ancak felsefi olarak kabul edilemez görünen bağlam, çalışması ile çağının temel bir gayesinin, Tanrıyı ampirik bilimin konusu yapma çabasının bayrağını taşımasıdır. Eleştirilerin odağındaki Paley argümanın zeki tasarım argümanı olmaktan çok zeki tasarım*cı* (*argument to design*) argümanı olarak anılması savının doğal teolojiye saplandığı noktalardan hareketle yapılan bir adlandırmadır. Bir yanda doğadan edindiği örnekler, bir yanda saatçi ve teleskop analojileri, diğer yanda Hıristiyan tanrısının

tasavvuru örtüştürülmek istenmektedir. Bu uzlaştırma girişimi Paley'in insan aklının neliği üzerine çelişkili saptamalar ile sürer.

Darwin ve sonrasında geliştirilen Darvinci açıklama modeli Hume'un Paley üzerinde gerçekleştiremediği bozucu etkiyi gerçekleştirebilmiş midir? İşte çalışmamızın üçüncü ana odağını bu nokta oluşturmaktadır. Darvinci doğa açıklaması bilindiği üzere, doğanın yapıtaşları, organizmaların yapısı ve işleyişi, birbirleriyle ve çevreyle ilişkileri üzerine sadece doğadan çıkan ilkelerle açıklama girişimidir. Doğaüstü herhangi bir varlık alanına, düşünceye, inanışa geçit vermeden, onları referans noktası kabul etmeden yapılan bu açıklama girişimi bilimin aydınlanma sonrasında edindiği pozitivist ve natüralist temelli açıklama eksenine de uygun düşer. Öyleyse, Paley'in Darwin sonrasında insanlığın düşünce dünyasından tamamen çıkarılması gerekmektedir ki bu olmamıştır. İşte yukarıda da bahsettiğim gibi, 200 yıl sonra Paley kitabının yeni baskısı ile hatırlanmış ve onurlandırılmıştır. Bu çalışmada Paleyci tasarım argümanını diğerlerinden farklı kılan özellikleri akılda tutarak bu etkinin Darvinci eleştirilerden sonra da sürdürülebilir olması üzerinde durdum.

Kuşkusuz Paley'in argümanı tarihsel olarak Darwin'den önce gelir. Hatta öyle ki doğada kendi kendi yasaların olamayacağına, yazarı olmayan kitabın, mimarı olmayan evin tahayyül edilemeyeceğine dayalı bir akıl yürütme ile doğadaki işleyişin yasa koyucusu olmadan mümkün kılınamayacağına odaklanır. Paley'in argümanı tarihsel olarak Humecu eleştiriden de sonradır. Dolayısıyla Hume'un tasarım argümanlarına yönelttiği eleştirileri aşacak olgunlukta olması beklenir. Hume ve Darvinizm arasında Paley'in hala gücünü koruyor olabilmesinin nedenleri çalışmanın özgünlüğü içinde ayrıntılı değerlendirilmiştir. Bu değerlendirme yapılırken Elliott Sober'in yorumlarına özellikle yer verilmesi gerekir. Sober, olabilirlik (*likelihood*) ilkesi çerçevesinde olgunlaştırdığı görüşlerinde zeki tasarımcı argümanın Darvinci açıklama ile rakip kabul edilebilmesinin felsefi koşullarını ortaya koyarken; bir yandan da Humecu eleştirilere rağmen Paleyci argümanın nasıl güçlü kalabildiğini göstermektedir. İki rakip

hipotezin birbirlerine üstünlük sağlaması için ayrıca kullanılan örneklem kalitesi ve seçilen bilimsel açıklama modeli önemli rol oynamaktadır. Sober'in ayrımını yaptığı bir diğer nokta zeki tasarımcı argümanın "kanıt"a dayalı kabulden çok "sağduyu"ya dayalı kabullenilme dolayısıyla Darvinci açıklamalar karşısında güçlü bir yerde durduğudur. Humecu eleştirinin ve sonrasında Kant'ın teolojik olanın felsefenin dışında bırakılması çabalarına rağmen doğal teoloji başlığı altında gelenekselleşen bir modelin geldiği noktada Paley'in argüman yapısının derinliği önemli rol oynamaktadır.

Zeki tasarımcı açıklamaların en yeni versiyonlarını incelemeye geçmeden önce çalışmamızda tasarım kavramının ve naturalizmin yeniden kısaca ele alınmasına çalıştık. Tasarım kavramı tek başına ne ifade etmektedir? Buradaki ana araştırma motifi doğadaki canlı/cansız nesneler ile insan yapımı tasarım nesneleri arasında nasıl bir benzerlik kurulmaktadır da tasarımcının varlığı ima edilmektedir sorusuna dayanmaktadır. Bu araştırmaya cevaben tasarımın tek başına doğadaki düzenle özdeş kılındığında sorunlar ortadan kalkmadığını, işlevsellik kavramının tasarımı belirlemede tam ve net açıklamalar ortaya koyamadığını, tasarımın sıradan olmayan bir oluş biçimi olduğunu temellendirmenin ise daha büyük metafizik açmazlara gebe olduğunu sorgulamış olduk. Naturalizm (doğalcılık) ise doğa bilimlerinin dayandığı ana eksen üzerine bir tartışmanın açılması demektir. Bilimselliğin doğalcılık ile katılaştırıldığı hatta kısırlaştırıldığı eleştirilerini yapan zeki tasarımcıları için "gerçeklik" dediğimiz şey görünen kadar görünmeyen etkenleri de hesabına katacak biçimde genişletilmelidir. İşte bu amaçla kendileri "kama stratejisi" denilen bir yöntem ile bilimin metodolojik olarak benimsediği ama zamanla ideolojiye dönüştüğünü iddia ettikleri doğalcılığın anlamını genişletmek istediler. Bu stratejinin en önemli kazanımlarından biri zeki tasarımın bilimsel bir araştırma projesi olarak kabul görmesi olacaktır. Ancak diğer yandan yaptığımız analizlerde görüyoruz ki zeki tasarımcıların amacı daha çok Darvinciliği yenerek kendi ideolojilerini egemen kılmak idealine dayalıdır.

Yanıtını aradığımız bir diğer soru Paleyci argümanın geliştirilmesi ve çağdaş modeli olarak adlandırabileceğimiz zeki tasarım (*Intelligent Design*) argümanı biçimine dönüştürülmesinde hangi felsefi önceliklerin temel alındığıdır. Bu akımın ilk örneklerini veren Michael Behe ve William Dembski'nin anlayışının felsefi ilkeleri ayrıca burada aktarılmaya çalışıldı. Behe ve Dembski'nin Paley'i Darvinci eleştiri karşısında halen güçlü ve geçerli bir argüman olarak görmeleri söz konusudur. Hatta bu isimler Darvinci açıklamalara rağmen Paley'in ortaya koyduğu tasarım argümanını bilimdeki gelişmelerin desteklediğini öngörürler. Kendilerinin bu öngörüsünün bilim çevrelerince kabullenmesinde ise tek engel olarak bilimin sahip olduğu natüralist anlayışı görürler. Onlara göre Darvinizm bilimin metodolojik natüralizmine uygun düşen bir anlayışa denk düştüğü için daha geçerli bir açıklamaymış gibi algılanmaktadır. Dolayısıyla Paley'in tasarım argümanının bilimin temelleri ile çelişmeyecek ve onu doğal teolojiden kurtaracak tek çıkar yol natüralizm dışında da iman ve inanç öğelerini dışlamayacak bir bilimsel anlayışın olanağının geliştirilmesidir. Bu Yeni-Paleyci anlayışın "yeni"liği Paleyci argümanın teolojik göndermelerinin vurgulanmasından çok argüman ve bir açıklama modeli olarak çok da geçerli olduğunu göstermekten ileri gelir. Başka deyişle Paley'in kitabının son bölümlerinde tasarımcının Hıristiyan tanrısı ile eş tutulması Behe ve Dembski tarafından adeta unutturulmak istenmektedir. Öyle ki gerek Behe'nin biyokimyasal gelişmeleri temel alarak açıklamaya çalıştığı tasarım argümanı gerek Dembski'nin olasılık hesaplarından yola çıkarak tasarımı şans ve rastlantı gibi proseslerden ayırt etmeye çalışması bu amaca hizmet eder niteliktedir. Böylelikle Paley'in Humecu eleştiriyi de bir şekilde aşarak ve yok sayarak Darvinizm karşısında bile halen varolabilmesinin ve yaygın bir anlayış olarak bilim çevrelerince de kabul edilebilir olması amaçlanmaktadır.

Behe ve Dembski'nin başını çektiği Yeni-Paleyci Yaratıcı (Tanrıcı) Bilim Anlayışı bilim-din ilişkisinin de tekrar ele alınmasını zorunlu kılmaktadır. Çalışmamın belli sınırlar içinde kalması ve konunun çok

boyutluluğu açısından bu tartışmaların apayrı bir tez çalışmasında ele alınabileceğini kabul etmek gerekliydi. Bu nedenle burada daha çok Paleyci argümanı düşünce tarihi açısından besleyen kaynaklar ile onun üzerine yapılan çalışmalara yer vermekle yetinmek zorunda kaldım. Zira Darvinizmin Darwin'in ortaya koyduğu açıklamalardan çok daha ileri giderek metafizik açılımları olan bir teori haline geldiği düşünüldüğünde Paleyci argümana bu yönden de bakmak söz konusu olmuştur.

Bu bağlamda çalışmamda Paley'in argümanını yeniden ele aldığımızda şu sonuçlara vardık: Birinci olarak Paley'in ortaya koyduğu tasarım argümanını metafizik ve epistemoloji çerçevesinde ele almak ile bir doğal teoloji örneği olarak incelemek arasında sonuçları açısından farklılıklar bulunmaktadır. Eleştirel bir yaklaşımda gözetilmesi gereken farklılık ise kanımca şöyle özetlenebilir: Eğer tasarım argümanı bir metafizik anlayış olarak felsefi tavır ile ele alınırsa Humecu ve Darvinci eleştiriler arasında yeniden değerlendirildiğinde vurgunun zeka (*intelligence*) kavramında olduğunu görürüz. Bu argümanın yaygın literatürde çokça tartışılan yönü ise tasarım (*design*) kavramı üzerinedir. Oysa ki doğayı oluşturan öğelerin bir tasarım olup olmadığı gösterdiği gibi tek başına yeterli olarak bir tasarımcıyı işaret etmeyebilir. Dembski'nin bu konudaki çabaları da felsefi olarak ancak *gaye* teması içerisinde anlamlı olabilir. Başka deyişle, tasarım tek başına tasarımcıyı gösterir ya da gösteremeyebilir ancak Paleyci argüman ancak *intelligence* kavramına yaptığı vurgu ile felsefi olarak savunulabilir. Buradan çıkarabileceğimiz sonuç insanlığın başlangıcından beri doğanın açıklamasında kullanılan çeşitli argümanların bir ortak özelliği olarak doğada var olan zeki, yönlendirilmiş ve kurgulanmış bir amaçsallığın varlığı açıklanmaya çalışılmıştır. Paley bu bağlamda zeki tasarımda metafizik olarak tasarımın zeki olma özelliğini öncelemek zorundaydı. Bu bizi şu türden bir yargıya da ulaştırmaktadır: Tanrı'yı doğada aramak, ya da doğanın Tanrı'sını kurgulamak, anlatmak ve düşüncede uyandırmak adı altında yapılan metafizik çabaların bir sonucu olarak doğanın bir tasarımın ürünü

olabileceği ve bunun da insanların duyu verilerine verili olduğu türünden bir yaklaşım kanıtlama değildir. Çünkü adı üzerinde olduğu gibi bu kanıtlamadan çok ona kanıtlar oluşturmaya çalışmak denemesidir. Ve buradan şu noktaya geliyoruz ki Paley'in argümanının bir doğal teoloji çalışması olarak incelenmesi ise onu Darvinci eleştiriler karşısında bambaşka bir noktaya konumlandırmaktadır. Doğal teoloji olarak zeki tasarım argümanı Darvinizmin eleştirilerinin muhatabı olamaz; çünkü tartışma zeminleri birbirinden çok ayrıdır.

İşte, ikinci olarak bu ayrık zeminleri bir arada değerlendirme ve adeta onları birbirine rakipmiş gibi konumlandırma çabaları Paley ve Darwin sonrası tartışmaların odak noktasını oluşturmaktadır ki bu çabaların temelinde de bilimin natüralist anlayışının esnetilmesi, üzerinde gedikler açılarak genişletilmesi düşünülmektedir.

Üçüncü olarak, bu çalışma ile Paleyci zeki tasarım argümanının felsefe tarihi açısından nasıl bir dönüm noktası olarak kabul edilmesi gerektiği üzerine bazı belirlemelerde bulunmuş oluyoruz. Tanrı kanıtlamalarının klasik biçimde *a priori* ve *a posteriori*, ayrıca kozmolojik, ontolojik ve teleolojik olarak kategorileştirilmesi felsefe tarihi ve din felsefesi açısından üzerinde çalışılan bir konudur. Ancak burada daha çok bu kategorileştirmenin ötesinde zeki bir tasarımcı olarak Tanrı'yı kanıtlamanın ne demek olduğunu felsefe olarak belirlemek amaç ediniliyor. Paley öncesi argümanlarda ortaya konan analojiler bilinenden bilinmeyene doğru bir gidişat sergiliyordu. Oysa ki Humecu eleştiriye yer bırakmayacak biçimde Paley laboratuar ortamında yaptığı gözlemlerde organizmaların yapısında bulduğu organizasyonu, etkileşimi, düzenliliği ve amaçsallığı ortaya koymaya çalışmıştı. Böylelikle Tanrıyı kavramsallaştırma aşamasında Paley Tanrıyı salt düşünce ya da inanç öğesi olmaktan çıkararak doğanın görüngüleri bağlamında değerlendirilmesi girişiminde bulundu. Şöyle ki, eğer bizim yaratıcı ve doğaya müdahil bir Tanrı anlayışımız var ise doğanın bu Zeki Tasarımcının eseri olduğu konusunda şüphemiz kalmaz. Doğanın işleyen mekanizması da bu kurgunun içerisinde tasarımcının ürünü

olmaktan öteye geçmez ve bu anlamda değerlidir. Paley açısından metodolojik olarak argümanın kuruluşunda insanın duyu organları ile oluşturduğu deneyimler toplamı referans noktası alınmaktadır. Tanrı ampirik araştırmaya indirgenebilir mi sorusu Paley ile bir bilinç aşımına uğramış ve bilimin konusu yapılabilecek noktaya kadar taşınmıştır.

Dördüncü ve son olarak bu çalışmanın vardırılabileceği bir diğer sonuç ise zeki tasarım anlayışının tek bir açıklama modelinden değil, birkaç değişik argümanın bir arada kullanılmasından oluşmuş bütünleşik bir sistem olduğudur. Eğer açıklamanın bu entegre biçiminin ayrıntıları doğru okunamaz ve ayrıştırılamazsa kendisine her alandan eleştiri yöneltilebilirken, elde edilecek yanıtlar da bu eleştirilere cevaben muğlak kalacaktır. Diğer deyişle, zeki tasarım argümanı en iyi açıklama olarak kabul edilmesinin öncesinde kullandığı kavramların içeriği, insan aklına yüklediği anlam ve işlev, doğayı nitelendirirken kullandığı metafizik çerçeve ve dayandığı Hıristiyan doğal teoloji anlayışı açısından kökenleri ve anlamları farklı kavramsallaştırmaların sonucudur. Bu anlamlandırma sisteminde tasarım argümanlarında sadece argüman olması bakımından tutarlılık aranmamalıdır. Ayrıca argümanın içerisinde yer alan kavramlar da dikkatle ele alınmalıdır. Çalışmamda ortaya konulduğu gibi bu kavramlar başlıca iki merkezde toplanmaktadır: zeka *(intelligence*) ve tasarım (*design*). Dolayısıyla Paley'i anlamanın sıradan yolu onu klasik bir Hıristiyan doğal teologu olarak görmek iken, felsefi açıdan işlevsel olan ve tercih edilmesi gereken yöntem ise onu tasarım argümanını ele alış şeklimizi değiştiren bir düşünür olarak ele almaktır.

Bu belirlemeler ışığında çalışmamda önemsediğim bir başka boyut tasarım kavramını aydınlatmaya yönelik yorumlar olduğu kadar organizmaların işlevleri ile tasarlanmış olmalarını birbirinden ayıran belirlemelerdir. Tasarımın metafiziği bu bağlamda Paley'in argümanını daha iyi kavramakta ve yorumlamak anlamına gelmektedir. Tasarım argümanını, işlevsellik argümanından farklı olarak ele almak Humecu ve Darvinci eleştiriler arasında Paley'in *Doğal Teoloji*'sini yorumlamakta bir

metod olarak benimsenebilir. Böyle bir ayrımın varacağı nokta zeki tasarım argümanını zeki tasarımı ortaya koyan bir argüman olarak değil, zeki tasarımcıya doğru giden bir argüman niyeti ile açıklama girişimidir. Sorun zeki tasarımı göstermekle yetinmeyip, zeki tasarımcının varlığına da vurgu yapan bir niyet taşınmasından kaynaklanmaktadır. Böylece anlaşılıyor ki Paley salt bir nedensellik güderek zeki tasarımcı olarak Tanrı'nın varlığını açıklama girişiminden fazlasını ortaya koymaya çalışmıştı. Organların işlevleri ve görevlerini incelediği bölümlerde Paley belli organların belli işlevleri yerine getirmek ile "görevlendirildiğini" ve "en iyi biçimde" sadece kendilerine zeki tasarımcı tarafından tanımlanan görevleri ifa ettiklerini söyler. Kimi yorumcular ise organizmaları oluşturan biyolojik temel taşlar olarak ifade edilebilecek organların işlevlerinin doğallaştırılmasının bu bağlantıyı koparacağını ifade ederek, Paley'in bu durumda üst bir zekaya bağlama güdümünün sadece dini inanışla bilim anlayışını uzlaştırmak niyetinden ileri geldiğini söyler. Doğal seçilim ile çalışan evrim açıklaması doğal bir işlevselliği kabul ederken bir adım daha öteye giderek doğayı aşan bir yapıda bu işlevselliğin varolabileceğini kuşkusuz kabul etmeyecektir. Burada doğal olanı aşan edimler ancak *şans* faktörü veya *rastlantısallık* ile çevre koşulları gibi temellere bağlanmaktadır. Paley açısından Darvinci açıklamanın bu natüralist yapısı teleolojik bağlantıdaki dışarıdan müdaheleyi düşünmemiz olasılığını azami ölçüde azalttığından kabul görmez. Paleyci anlayışta tasarım zeki olduğu kadar bu zekanın bir göstergesi ve somutlaşma zemini olarak da bilinçli ve gayeli bir nizamın yapıcı ve itici gücüdür. Keza, bu gücü ve –varsa- tasarımcının neyi başarıp neyi başaramadığına dair elimizde bir ölçüt yoktur. Dolayısıyla zeki tasarımcının olanakları ile gerçekleştirdikleri arasında bir karşılaştırma yapma şansımız yoktur. Paley'in saat ve saatçi analojisi bu açıklamaya göre teleolojik temelleri açısından sorgulanabilir. Humecu eleştiriye paralel olarak zeki tasarımcıya varmak güdümündeki Paleyci argümanın deneyselliği ve niyetin bilinemeyeceği önkabulleri ele alındığında açıklama gücünün tökezlediği söylenenilir. Diğer deyişle, tasarım argümanı

tasarımcının varlığını, var olma olasılığını güçlendiren bir argüman olamayabilir, ancak doğadaki düzeni göstermek açısından dayanakları ve felsefi zenginlikleri olan bir adımdır. Tasarımı tasarımcıdan ayrı düşünemeyeceğimize dair bir yargı çok da sağlam bir yargı değildir. Ancak Darvinci açıklamalar ile daha da yaygınlaşan adaptasyon kavramının Darwin sonrasında Hıristiyanlarca tasarımın bir delili olarak kabul edildiğini de hatırlatmak gerekir. Paley'in ve Darwin'in çağlarındaki İngiltere'nin sekülerliği tam olarak hayata geçirmediği bir dönemde olduğunu düşündüğümüzde biyolojik verilerin yorumlanmasında da bilim insanlarının inanışları ile vicdanları arasında kalabileceğini görmüş oluyoruz. Darvinci anlayışın gelişiminde Paley'in *Doğal Teoloji*'sinin çok önemli bir rol oynadığını biliyoruz. Dolayısıyla bu iki değişik yaklaşım tarzı birbirlerini besleyen kesişimlere de sahiptir. Aradaki belirgin fark ise Darwin'in Paley'in sunduğu mükemmel uyumluluğu bir tasarımcının varlığına başvurmadan da yeterince açıklayıcı bulduğudur. Böylelikle iki tez arasında teleolojik bakış açılarındaki içkinlik ve aşkınlık açısından bir ayrım yapmayı verimli bulabiliriz.

Zeki tasarım argümanının eleştirel değerlendirilmesinin zihnimizde uyandırabileceği bir diğer bağlam Tanrı kavramına yaptığı etkilerdir. Çalışma başlığımı felsefe disiplini içinde ele alma zorunluluğumdan dolayı bu etkilerin ilahiyat ilmi içerisinde daha derinlikle incelenebileceğini varsayıyorum. Lakin gerek gördüğüm yerlerde argüman bağlamında Tanrının kavramsallaştırılmasına ve soyutlaştırılmasına dair belirlemeler yapmak durumundaydım.

Çalışmamda tüm bu bağlamları düşündüğümüzde tasarım argümanının ilk örneklerinden günümüz güncel bilim tartışmalarına kadar uzanan geniş bir bakış açısında epistemolojik, ontolojik ve metafizik göndermeleri açısından anılan argümanlar arası geçişi Paley üzerinden okumanın nesnel koşullarını sunduğum kanısındayım.

APPENDIX B

CURRICULUM VITAE

PERSONAL INFORMATION

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EDUCATION

Degree	Institution	Year of Graduation
MA	Istanbul University Department of Philosophy	2003
BA	Istanbul University Department of Philosophy	2000
High School	Kabatas High School, Istanbul	1996

WORK EXPERIENCE

Year	Place	Enrollment
2002-Present	METU Department of Philosophy	Research Assistant
2000-2002	Türkiye İş Bankası	Call Center Agent

FOREIGN LANGUAGES

Advanced English, intermediate French, some German and Dutch.

PUBLICATIONS

Type. 1.1.5.0.1.(Full paper presented at and published in the proceedings of a refereed conference regularly held by an international organization)

● “Çağdaş Gerekler Açısından Türk Felsefesi’nin Eylem Planı Ne Olmalıdır?”, II.International Social Sciences Congress, Celal-Abad, Kırgızistan, 5-9 Haziran 2005.
● “Câbir b. Hâyyan’da Din, Bilim ve Bilgi”, First International Harran School Conference, Şanlıurfa, 28-30 Nisan 2006.
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● “In What Conditions Are European Human Rights Conceptions Universally Applicable?”, VII. European Culture Congress, Pamplona, İspanya, 19-22 Ekim 2005.
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● "Toplum-Bilim İlişkisinde Bilgi ve Değer Sorunu", Mantık, Matematik ve Felsefe, VII. Ulusal Sempozyumu, 8-11 Eylül 2009, Foça, İzmir.
● "Hermann Hesse Yazınında Bireyin Başkaldırısı ve Çokluk İçinde Birlik Anlayışı", Edebiyatta Dil, Zaman ve Mekan, Atatürk Üniversitesi, Edebiyat Fak., İngiliz Dili ve Edb. Bölümü Anma Toplantısı, 5-6 Kasım 2009, Erzurum.

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HOBBIES

Yatching, Swimming, Gourmet, Flâneur Culture, Classical Turkish Music, Travelling.

MEMBERSHIPS:

Türk Felsefe Derneği, Kabataşlılar Derneği, Anadolu Denizcilik Kulübü, The Thoreau Society, La Société des Flâneurs Sans Frontièrs, Üsküdar Musiki Cemiyeti.