Abstract – Intelligent design theory appears to be consistent with both young and old earth views of creation and has brought respectable science to the evolution/creation debate. Researchers now just have to search for evidence of design in the universe. Yet, what does design really mean? Does God design or does God create? Is there a difference? If there is a difference is the intelligent design theorist looking for the wrong evidence?

I. Introduction

The rectangular black box is brought into the room and laid on the table in front of you and your team members. Wires of assorted colors hang out one side of the box while what appears to be a pipe is coming out the other side. The box is about twelve inches long and eight inches wide. You pick up the box, estimate it weighs about 20 pounds. The rest of the box is solid black – no screws or bolts holding it together. It appears to have been sealed during the manufacturing process. The man who delivered the box to you explains that you have two weeks to determine the purpose of the box. “While you can do whatever you need”, he explains, “do not destroy the seal.”

Thus begins your job as the intelligence engineer on a team setup to discover the purpose, intent, and capabilities of this black box device from an enemy country. You do not know if it is a spy device or a weapon. You do not even know if it is a military device at all – the last device uncovered by these intelligence agents turned out to be a fancy new baby monitor a company within the suspect country had been trying to develop and market. You are a reverse engineer. Your mission is to answer the “Black Box Questions.”

• What does the box do?
• How does it work?
• Why was it created?

II. Enter Intelligent Design

Intelligent design (ID) is an attempt to answer the greatest “Black Box Questions” of all time. What does the universe do? How does the universe work? And of course, why
was the universe created? Attempts to answer these questions have been found in writings from the Chinese, Egyptians, and Mesopotamians - as far back as 6000 years ago. These ancient ideas credited gods or deities with the creation of the universe. These ideas made the ancients the first intelligent design theorists. Since the ancient days many ideas have been presented as an answer to these “Black Box Questions.” Some used an intelligent designer or deity to do the creating. Others, we will call them Naturalists, held that only natural processes that could be explained though the “laws of nature.” The earliest examples of this view came from India where they viewed the universe as going thorough a number of infinite cycles – much like the oscillating universe model that would be presented thousands of years later.

Today, these two major themes still are in hot debate. The question comes down to this – “Was the universe formed through natural forces via random chance or was it created by some supernatural power?” Those who believe in formation by random chance usually side with the neo-Darwinian model of evolution. In contrast, those favoring the supernatural model tend to fall on the side of what has become known as intelligent design – meaning they believe an intelligent designer is responsible for the universe.

William Paley’s *Natural Theology* published in 1802 made the theory in design famous. According to Paley, if we found a watch in a field we would understand it to be designed. Paley’s theory might be one of the original intelligent design theories. Today a group of scientists, theologians, and philosophers subscribe to the idea that intelligent design is evident in the universe and in life. Furthermore, these intelligent design theorists are “proposing a positive research program wherein intelligent causes become the key for understanding the diversity and complexity of life.”

**Intelligent Design - Major Points**

The major point of the ID movement is that the universe shows evidence of a designer. This evidence of design can be seen on the macro level in the study of the cosmos. It can be seen in the micro level through the study of atomic physics or molecular biology. Proponents of ID indicate that these systems are all complex and it is highly improbable for them to occur by random chance.

According to ID theorists (as well as many Christians in general), a scientific model that does not require the use of evolution is needed for the explanation of the universe. Therefore, a driving force of ID is the need to find an alternative view to evolution that has scientific merit. The Christian (and other faith based) community has always had alternative views. However, these models were never based on science, but instead based on religious beliefs founded in ancient religious writings such as the Holy Bible or the Koran. In fact, scientists often rejected these models outright since they had no real scientific basis. Much of this rejection was based on the belief of naturalism – the view that all science must focus on the natural world and natural processes for its explanations. The ID movement allows for a model that at least passes some test of being a scientific model – since design theoretically can be proved or disproved. Therefore, to test the ID model of the universe, and of life, ID scientists have to be able to prove that the universe and (or) life was designed.

Why do we need another scientific theory besides evolution anyway? Besides the fact that many people do not believe in evolution for theological reasons, many scientists have begun to question evolution based on the lack of scientific evidence. For instance, if
evolution is true, then we expect to see fossils of transitional life forms as species evolved from one species to another. An example of an evolutionary life form would be a fossil that is part fish and part reptile – in some type of transition from fish to amphibian. Another possibility would be a reptile fossil that contains wings – a transition from reptiles to birds. While there are a few isolated fossil cases of possible transitional life forms (such as the *Archaeopteryx*), they are very rare. Even Darwin expected to find an abundance of these transitional fossils, but they do not seem to exist.

**Intelligent Design - Goals**

The major goal of the intelligent design theory is to refute the idea of naturalism as required by those who promote neo-Darwinian evolution by offering an alternative explanation for life that is both scientifically and philosophically solid. The evolutionist’s use of naturalism removes all possibility of using God or anything supernatural as an explanation for anything in the name of science. ID opens the door to natural or supernatural explanation. Many scientists have developed a view of design or some form of creation without ever committing to a religious view.

The second key element of ID is that it is more of an area of scientific research than simply a philosophical view. While no area of research is without its philosophy, the ID community’s willingness to allow people of any philosophical persuasion to play is a sign that the issue is more about research and truth than ideology. However, we can strongly credit the evolution/creation debate for this openness. For years these totally opposed sides have created an atmosphere of poor logic and personal attacks that has largely confused the non-scientists and created several dogmatic fronts. The result was that much of the science and philosophy have been unfairly discredited. The investigators in ID seem to have taken great pains to avoid such political battles.

**Intelligent Design - Science**

One of the major works in ID is *Darwin’s Black Box* by Michael Behe. Behe, a professor of biochemistry at Lehigh University, introduces a concept he calls irreducible complexity (IRC). Behe looks at the molecular world and finds all types of systems that must have all the parts in place to have any function at all. Behe argues that these systems are therefore complex in their simplest form. One example is the bombardier beetle, which spits a hot liquid on any enemy threatening it. The hot liquid is created by the mixing of two chemicals – each which are stored in the beetle’s body in separate containers. The beetle combines these two liquids as they exit his body and the chemical reaction created produces a hot liquid. Behe questions how a Darwinian model would explain such a system. All of the chemicals and the ability to spray and mix the chemical on exit must be in place for any benefit to come. One chemical does nothing by itself. This beetle is an example of a system that cannot be reduced to a simpler form and still be useful.

The second major work comes from William Dembski in *The Design Inference: Eliminating Chance through Small Probabilities*. Dembski explains that you can eliminate “chance through small probabilities.” Dembski’s idea is summed up in what he calls the explanatory filter, as shown in figure 1 below.

Using this filter, all events are determined to be regular, by chance, or by design. If there is a high probability (HP) of an event (such as the sun rising in the morning) we
would call this regular. The probability of a regular event would be near 1.0. (In probability theory a 1 means there is a 100% chance of something happening – i.e. a sure thing.) If an event has an intermediate probability (IP) (such as a coin landing on heads when flipped) then we say that event happens by chance. Without putting numbers on an intermediate probability, lets just say something that we all understand very well could happen. However, if an event is not HP or IP and appears to be specified (we cannot attribute to chance), then we could call it specified (SP). In the SP case, the probability of the event is very small. An example of a SP event would be material coming together in a fashion to create a 747. The likelihood of this happening by random chance is very low (I do not have a number – but lets just agree it is much less than 1 in a million.) Dembski would say this type of event is therefore specified – or by design – since we can easily see it did not happen by chance alone. He uses the explanatory filter to run through the argument of evolution. This highly improbable event (which even the true Darwinist agree has a very low probability – though they may quibble with the number) falls out of the filter as a specified or designed event. While the highly improbable appearance of life leads many to naturally see a creator and therefore design, Dembski has put a mathematical model into the system. Like other models it can be tested.

However, Dembski’s filter seems to indicate more than he claims. For example, let us take an event and call it E1. E1 might be the sun rising in the morning. Note E1 is HP and therefore it falls into the regularity square. (See figure 1.) But now let us test the probability of an event being regular. Let us make a new event ER, which stand for event regular. In this case we will test the regular event in the filter itself. What is the probability of something being regular? Logically we could conclude the only way we can get regularity is by design!

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Figure 1 – Dembski’s Explanatory Filter ⁹
Now, let's look at another event E2 – say flipping a coin and the coin landing on heads. Put into the model, this falls into the IP section, and therefore is attributed to chance. As we did for a regular event, let us test the probability of getting a chance event. We will create a new event, call it EC (event chance), and put it in the filter. But before we can analyze this chance event by the filter, we must look deeper. What is chance? Is it really random? If you knew the initial placement of the coin on our thumb (heads up or tails up), the forces in the thumb as it launches the coin, and the height from the ground where the coin will land, we could calculate through basic Newtonian physics exactly how the coin would land. Therefore, it is not chance at all, but instead it is a regular event based on the laws of physics. And we have already shown with the E1 example above, any regular event is therefore specified and by design.

There is one last possible event we will call E3: the event is neither HP, IP, or SP. E3 falls straight down the filter into the chance block at the bottom. Note that E3 is not like the coin tossing – something that we would expect to be probable. Instead, E3 is a very rare random event. But why call it random? Could it be that while it appears random, it is only because we do not understand the physical laws that control E3? The fact is, probability is often used to predict future events (coin toss) instead of using deterministic equations of physics - as we described above in the coin toss example. But we use probability because it is just easier to do and the math works. The amount of measuring and calculating to get the exact answer is often not worth the trouble. In other cases, however, we simply do not understand the equations or the entire set of conditions. The weather is a good example. If we could calculate everything exactly, and we understood all the laws of weather, we might be able to predict exactly when it was going to rain and where. But we cannot – at least today. Many will argue that quantum behavior is truly random, but I would have to side with Einstein who claimed, “God does not play dice.” At least I will be in good company.

To argue this point would take more time than we have. However, many Christians would tend to agree with my assessment of nothing being truly random. But if I am correct, what does it say for the Explanatory Filter. Now things that happen by chance that are not HP, IP, or SP, fall into another set of laws, albeit not understood today. Therefore, they would also be regular, resulting in their being – yes – by design. Now the filter would look something like figure 2.
Does Intelligent Design Fit with Christianity?

Two major creation views hold a majority of the Christian population. First is the young earth view, which subscribes to a literal 24-hour day interpretation of the six days of creation in Genesis. The other is old earth creationism, which allows for the Hebrew word “yowm” used in the Genesis creation account to mean a long period of time. “Yowm” is the same word which when translated to English is the word “day”. However, old-earth creationist point out that a long period of time is an acceptable definition of the word “yowm”. While people holding these two views debate the issues, most agree on a great deal. Most hold firmly to the major doctrines of Christianity, including salvation and an inerrant bible. Furthermore, many of the well informed of the two sides quickly admit their views have some difficulties.

Many people who hold either the young earth creation (YEC) or old earth creation (OEC) views will agree with the concept of ID. Since the ID has gained some merit as the other scientific view of the origin, people who are against evolution are very willing to agree with the ID model. YEC and OEC both will agree with the basic tenant of ID - that the universe was designed by something (they believe God of the bible) and that the universe has a purpose.

Theistic evolution (TE) is another camp made up of people who hold to beliefs in God (usually Christians) but also believe evolution is true and accurate. This group finds itself in an odd position politically. The neo-Darwin group of evolutionist will not back them up, because the TE still hold to God, while many hard-core evolutionists are more
in the atheist or agnostic camp. On the other side, their Christian brothers and sisters often have little patience with them, claiming that they have sold out to the other side.

Some TE proponents argue that God created through the tools of evolution, while others will hold that evolution and God are totally unrelated. (Independence View.)

How a TE views ID is tricky. Someone who completely believes in evolution (neo-Darwinist) and holds to a naturalistic model will have to reject ID. ID negates the use of random chance in the evolutionary model. However, it is feasible for someone to both hold to some form of evolution and still accept ID. For this to be so, they would have to reject the dogmatic view from the evolution community about the need for naturalism. Then they could accept something like a modified Van Till’s robust formational economy (RFE), which hold that God created everything with an internal economy to self develop. However, we should be clear, all indications are the Van Till does not buy into ID.

I would be inclined to think the TE is a special view of ID - although most TE scientists would reject this idea. My reason for thinking so is that both sides have defined the concepts in such a way that their theories can be correlated. For instance, evolution is claimed to happen by random chance alone. Using the TE model, or better yet Van Till’s RFE, we see that all of creatures have “creature capabilities sufficiently robust to make possible …biotic evolution” 10. Consider for a moment the possibility that you change that quote to “Is it possible all creatures are created such that creatures have creature capabilities sufficiently robust to make possible biotic evolution?” Now we have a true TE model, but we may have altered the term evolution a bit. While it is still random chance (or the appearance of random chance) to change species and modify creatures, the randomness is only apparent, while there is a design beyond the scope of what we now know.

III. So What Does Intelligent Design Mean?

ID has certainly gained some respect. Much of the Christian community sees ID as a savior against the onslaught of evolution. They needed a scientific view in the fight against a scientific theory. However, has the Christian community looked closely at ID? What does the bible say about it? How does this relate to the design we see in society, such as design by engineers? Do the design arguments work?

While many in the Christian community will be quick to agree, and even embrace ID, I do not remember seeing anyone address the issue from a truly Christian perspective. In fact, many writings about ID seem to be somewhat void of the talk about Christianity in an attempt to have it treated as a legitimate science. Two issues present themselves here.

First, the ID and the Christian community are often linked together. Any attempts to distance oneself from Christianity when presenting ID as an alternative to evolution for the school system will be seen through. Many evolutionists consider ID and Christianity to be one in the same. The evolutionist call the attempt to sell ID is a political move to make the doctrine of God a scientific one.

As we have mentioned before, the ID theory is an easy fit with the YEC and the OEC. They can still quibble over the details of when and some of how, but ID can be a theory both camps can embrace.
Second, does the ID theory pass its own tests? Dembski in particular has created a model, as described above, to test for design. The argument for design certainly looks circular.

**Biblical view of design**

Let’s start with the biblical view of ID. The Christian should ask “How does ID theory fit with Christianity, and in particular with the bible? Is ID consistent with creation in Genesis?”

First, many verses in the bible certainly discuss some elements of a creative God. From the first sentence in Genesis we see the creative aspect of God, and God being involved in creation when it says “In the beginning God created the heavens and the earth.” [Gen 1:1] Genesis goes on detailing God’s creative handiwork for two chapters. Then many other verses refer to God as the creator of the universe or the creator of man.

“’The heavens declare the glory of God; the skies proclaim the work of His hands.” Psalms 19:1

“For since the creation of the world God’s invisible qualities--His eternal power and divine nature--have been clearly seen, being understood from what has been made, so that men are without excuse.” Romans 1:20

“Ask now about the former days, long before your time, from the day God created man on the earth.” Deut 4:32 (NIV)

“You heavens above, rain down righteousness; let the clouds shower it down. Let the earth open wide, let salvation spring up, let righteousness grow with it; I, the Lord, have created it.” Isaiah 45:8

Some verses even refer to God as still creating.

“Let this be written for a future generation, that a people not yet created may praise the Lord” Psalm 102:18

The word “create” is attributed to God at least 51 times in the bible.

However, the bible does not say God designed the universe. Nowhere does it say God designed mankind. Instead, the words are all associated with the word “create”. The term design is used in the bible, however, but in the bible it is attributed to the skills and the work of men.

“He has filled them with skill to do every sort of work done by an engraver or by a designer or by an embroiderer in blue and purple and scarlet yarns and fine twined linen, or by a weaver--by any sort of workman or skilled designer.” Exodus 35:35 ESV
"Therefore since we are God's offspring, we should not think that the divine being is like gold or silver or stone–an image made by man's design and skill.” Acts 17:29 ESV

Design is also attributed to the plans of Satan.

“so that we would not be outwitted by Satan; for we are not ignorant of his designs. “ 2 Cor 2:11

In only one verse, Hebrews 11:10, does God get referred to as a designer, and then the work is referring to Canaan, a place in which God designed for Abraham.

“For he was looking forward to the city that has foundations, whose designer and builder is God.” Heb 11:10 ESV

Is the use of the word design and creation intentional in the bible? Does it mean they are different things? Apparently men design and God creates. Based on the Hebrews verse, we can certainly conclude God is capable of designing also – which we would expect. However, is man capable of truly creating? The only reference to man creating is in Habakkuk 2:18, where the reference is referring to man creating an idol.

“Of what value is an idol, since a man has carved it?
Or an image that teaches lies?
For he who makes it trusts in his own creation;
he makes idols that cannot speak”
Hab 2:18 NIV

How is this Habakkuk verse related to the creation of God?

The word “make” is the only word we see associated with man and God that has some element of design or creation.

“Then God said, "Let us make man in our image, after our likeness.” Gen 1:26

“Make a roof for the ark, and finish it to a cubit above, and set the door of the ark in its side. Make it with lower, second, and third decks.” Gen 6:16

“Then they said, "Come, let us build ourselves a city and a tower with its top in the heavens, and let us make a name for ourselves, lest we be dispersed over the face of the whole earth.” Gen 11:4

What can this mean? Is there a meaning to the particular uses of these terms? Why can God and man “make” things naturally and supernaturally? Yet, why does the term “create” seem to be limited to supernatural events, or when man creates - attempts at the supernatural. What is design anyway? To us design does not imply make, but design means to plan. But some of the verses seem to use design as a skill to craft things, and yet when design is used for Satan it seems to imply intent.
Perhaps the word “creation” is used for man in Habakkuk 2:18 for idols since man is “creating” something of his own hand that has powers outside the domain of the natural world - supernatural. This interpretation is at best a guess, but there is something different. I am not a Greek or Hebrew expert, so perhaps a look to the literal meaning of the words in context could shed more light on the subject.

But, seeing that at least in the word-for-word translations (like the English Standard Version or ESV) we do see a difference. What does the difference imply? What does the bible mean by creation? What does it mean by design – and are creation and design synonymous? What about make? It does not appear that the bible treats these terms as the same. It appears a careful selection of terms is used. The terms create, design, and make do not appear to be used interchangeably. The only time God designs something in the bible is when He is designing a city – something that might be a task man himself could undertake. Some versions of the bible use the term architect in the Hebrews verse instead of the word design. But the term creation or create is used completely in Genesis – never the word design. Never in Proverbs or Psalms is God referred to as the designer – always the creator.

But, when Christians side with intelligent design, they side with a theory that the universe and life shows evidence of design. Is this the same as the God they worship? Certainly He can design, but does that explain creation? Certainly He can also “create” via a process of evolution. Is ID a step in the theistic evolution direction?

An Engineering View of Design

The closest thing I can image to design as used in the ID definition is the term engineer. Engineers are designers. Yet, what is it that distinguishes an engineer's design from the creation of God. OK, beyond complexity.

First, man designs with limited resources. In fact, one of the key points of engineering is that the engineer has limited resources, one of them being money. But even with enough money, the resources are still limited by what is found or made on earth. We will always have a limited supply of materials and processes. Automobiles are designed to use part which are the cheapest. Sure we could use titanium materials for the engine, but at what cost. And will we have enough titanium?

Second, we have to deal with the limitations of the resources we do have. What temperature ranges will the materials work in? What are the capacities? Imagine the limitation issues of sending a man to Mars. Assuming NASA is given enough money to send a man to Mars. Are the issues over? No. For beginners, there are many limiting issues in the materials of human tissues. A man’s bones would suffer great atrophy in a trip to Mars. It is doubtful that he could explore once there, and even more doubtful we could repair his body when he returned. Even for the more down to earth traveler, the design of an automobile would get better gas mileage (another design and resource criteria) if they could be made from balsa wood. Yet, the material limitations of balsa wood make it impractical for our other design criteria – safety and durability. The engineering design process is full of compromises to find a subset of materials and design criteria that will all work together to deliver a final “reasonable” product.

Third, all design is purpose driven. Usually the purpose is for production and profit, but other examples – such as Mars trips – can be found. Yet, there is a clear purpose before the design is undertaken.
Fourth, it is an activity of man. We have not used monkeys to design, and we have yet to built a machine such as a computer to design.

So design is carried out by men, with a purpose, and with limited resources and limited capabilities of the resources we have at our disposal. This definition may be an engineering definition of design, but I think if we look at design from an interior designers view we would find similar issues. Does this sound like what God has done? Is God a designer? Is God an engineer? To say so with our current definition implies a great deal of constraints on God.

Furthermore, does design result in anything? If you ask me to design you a house, and I bring you back a wonderful set of blueprints (with a bill for services – of course) do you have a house? Will it keep you dry in the rain? No – but you do have a design. Now with skilled workers you can build the house based on the design. Yet, in building the house are the workmen strapped with limited resources? Can their saws cut precisely without wasting any wood in the kerfs of the blade? Can they get lumber in extremely long lengths? Can they get lumber that is shaped or curved? They have limitations not only in their equipment, but also in their own abilities. So are the workmen creating a house or building a house?

Constraints on God? Limitations on the definition of design? Does it sound like I am about to jump into the theistic evolutionists camp? Shall I stand up and argue for Van Till’s robust formational economy?

**View from Within the Watch**

In our struggle to cope with the issue of why we are here and the purpose of the universe, we can look back at Paley’s watchmaker analogy. Sure, if we come upon a watch and it seems to be telling us the correct time and has intricate moving parts, we can guess it had a designer. Yet, did the designer work with a purpose? Did he have limited resources of metal and glass? Did the strengths of different types of metals limit him? Furthermore, what about the tools he used to actually build the watch – were they limited? We would naturally think the answer to these questions were yes.

But consider – what if you are not the person who finds the watch. What if you are a part of the watch? Perhaps you are a gear or a spring. From your view of your world, all you see are things working in a perfect order. You see another gear move at the same rate – always passing you every second precisely (that is if you could tell time). Would you see the purpose of the design? Would you see design at all? In fact, could you prove there is design?

To try to prove the design we (the watch gear) shall use Dembski’s formula to prove the design. According to the explanatory filter, we see another gear moving around. In the next second, will we see it again? Is it probable? Yes. It has always done so. Just like the sun rising and setting to a human, we would guess it is not only probable, but also highly probable. Therefore, in Dembski’s model, this is not design it is regular. But from the outside of the watch, we understand the watch to be designed. Therefore, Dembski’s model only appears to detect design if you are outside the design.

The real issue might not be that Dembski’s model fails so much, as that it is incomplete, and perhaps circular. If an event is in fact highly probable, such as the sun rising, we would call it regular. Yet, is it highly probable that the sun would be highly probable – or regular? This question is what Dembski wants to get to – isn’t it? So now
everything that is regular becomes highly improbable, and is therefore design. The filter might be able to be accused of circular reasoning.

IV. Conclusion

You started as a reverse engineer trying to answer the black box questions. All the engineer knew about the origin of the box was the country from which it came and that the box was designed. Can we use the same process of reverse engineering to determine answer the black box questions about the universe?

If ID is correct, we must assume that the terms used in the bible - design, create, and make - are similar in function and definition. Therefore we can conclude from our analysis of the Dembski Explanatory Filter that every event is by design. There is nothing that is regular in the universe or nothing that is by chance – it is all designed by a supernatural power. And therefore, we can assume that God (our supernatural power) is the ultimate engineer. Furthermore, our attempts to study and understand science is really an attempt to reverse engineer God’s design!

However, if design, create, and make do not have similar meanings in the bible, then we have another problem. We might have the “gear within the watch” problem, we cannot see much, and everything appears regular, but we can never see the real intent of the design. (Short of special revelation.) But this might also mean that the bible has very special meanings of create, design, and make – perhaps ones we cannot really understand. Perhaps we are barking up the wrong tree in trying to prove design. The real question is, “How do we prove creation?”

Notes


