Part 2: The Evolution-Creationism Debate

Chapter 4: An Introduction to the Debate

1. The debate is really between creationism, evolution, and intelligent design theory.
   a. What is creationism?
      i. Christian creationism is only one form creationism can take. American Indians have
         creation stories. Hinduism has a creation story. The Muslim creation story is slightly
         different than the Christian creation story.
         (1) For alternative creation stories, see
             http://www.gly.uga.edu/railsback/CS/CSIIndex.html
      ii. According to creationists (in the broad sense of the word), the universe and humans were
          created by one or more divine/supernatural beings. Christian creationism identifies this
          being with God and says that creation happened “the way it says in the Bible.”
   b. The difference between creationism and intelligent design theory (ID theory).
      i. According to ID theory, living things could not come into existence accidentally. To the
         contrary, only an intelligent being (or group of intelligent beings) could bring them into
         existence.
         (1) The analogy: Suppose we find a wristwatch on a beach. It would be absurd to think
             that the wristwatch came into existence as a random event. To the contrary, the watch
             gives evidence of having been intelligently designed. And so, according to fans of ID
             theory, do living things.
             (a) Consider the human eye. According to evolutionists, it came about as the result
                 of an incredible series of accidents. This claim, say ID advocates, is as ridiculous
                 as for someone to say that a watch assembled itself.
             (b) Consider flagella, the “propellers” that move bacteria. They are remarkably
                 complex, and yet are useless if any of their components are missing. But the
                 chance of all their components “coming together” at the same time is almost zero.
         (2) It is important to realize that ID theory, in its purest form, does not assume that the
             intelligent designer is God. Rather, it proceeds in two stages. In the first it argues
             that there must be an intelligent designer, and in the second, it argues that the designer
             is God.
      ii. Christian creationism is 2000 years old (since this is how long Christianity has existed). ID
          theory dates back to the 1980s. Some suggest that ID theory is really just a disguised form
          of creation theory and that it was developed as a kind of “end run” around prohibitions
          against teaching evolution in public schools.

2. Evolution theory
   a. The two principal components of evolution theory:
      i. First: The claim that no divine being or intelligent designer brought living things into
         existence; instead, they arose as a kind of accident.
      ii. Second: The claim that once living things had arisen, they developed as the result of the
process of evolution. Those living things that were best suited to their environment 
survived and reproduced, and when they did so, they passed along their genes. Those living 
things that were poorly suited to their environment perished.

3. Class vote: which of these theories do students favor?
   a. A question for the creationists: what kind of creationist are you?

4. The current status of the debate:
   a. The debate is primarily an American phenomenon, and is taking place primarily in certain 
      regions of America.
   b. In America today, creationism is winning the debate (in terms of “popular vote”): significantly 
      more people believe in creationism than believe in evolution.
   c. It is illegal to teach either creationism or ID theory in public schools in America.
Chapter 5: Christian Creationism

1. We will focus our attention on the form of creationism favored by Christians. They face two jobs in presenting their creationism.
   a. **Job #1**: they must explain how, according to the Bible, the universe and the people in it were created.
      i. It turns out that this job is harder than one might imagine. You can’t simply say that creation happened “the way it says in the Bible,” since the Bible is not particularly clear on the subject and is therefore open to interpretation.
      ii. It is significant that Christians themselves do not agree on the proper way to interpret the creation story in the Bible. Some rival versions of Christian creationism:
         (1) **Geocentrism**: the view that the earth is at the center of the universe.
             (a) A supporting Biblical quotation from Psalm 93:1 “the world also is stablished, that it cannot be moved.”
         (2) **Flat Earth Creationism**: the view that the earth is flat.
             (a) A supporting Biblical quotation from Matthew 4:8 “Again, the devil taketh him up into an exceeding high mountain, and sheweth him all the kingdoms of the world, and the glory of them.” If the earth weren’t flat, how could Jesus see the entire earth from the top of a mountain?
             (b) Flat Earth Creationists dismiss evidence for a round earth by citing “conspiracy theories”: the moon landing was a hoax.
         (3) **Young Earth Creationism**: the earth was created by God about 6000 years ago.
             (a) James Ussher’s calculations, based on the Bible’s telling of history: the earth was created on the night preceding October 27, 4004 BC
             (b) Significantly, Young Earth Creationists allow for evolution “within kinds.” What they object to is evolution causing one species to transform into another. And what really bothers them is the thought that man evolved from some other species.
         (4) **Old Earth Creationism**: the earth is far older than 6000 years old, but was created (long ago) the way the Bible says. A Biblical “day” might last for millions of years.
      iii. Thus, when someone tells us that he is a Christian creationist, we can meaningfully ask, “What kind of creationist are you?” If he cannot tell us, we can conclude that he hasn’t thought very much about his beliefs.
      iv. Another class vote: Those of you who identified yourselves as creationists, what kind of creationist are you?
   b. **Job #2**: Christian creationists must explain why we should believe what the Bible tells us. Why accept the Bible’s story of creation rather than that of, say, the Hindus or the Potawatomi Indians?
   c. In Chapter 4, we will take up Job #1, and in Chapter 5, we will take up Job #2. But first, in Chapter 3, I would like to give the class a morality survey.
Chapter 6: Biblical Ethics

A Morality Survey

1. Is it morally permissible to have children just so they can tell you how wonderful you are?
2. Is it morally permissible to have children so you will have someone to work around the house?
3. Would it be morally permissible for parents who were going away for a week to leave a jar full of crystal meth in plain sight in the living room and give their teenage child instructions not to try it. And if the child ended up trying the crystal meth, who would you blame?
4. Is it morally permissible to punish the descendants of people who have done bad things?
5. Is slavery morally permissible?
   a. If you think that slavery IS morally permissible, is it morally permissible to sell your daughter into slavery?
   b. Is it morally permissible to beat a slave, as long as you don’t kill him?
6. Is it morally permissible for us, in order to punish guilty people, to punish innocent people at the same time, when we could easily avoid doing so?
7. Is capital punishment morally permissible? We can break this question into sub-cases:
   a. Is it morally permissible to execute people by drowning them?
   b. Is it morally permissible to execute people by incinerating them?
   c. Is it morally permissible to execute people for homosexuality?
   d. Is it morally permissible to execute wives for being unfaithful?
   e. Is it morally permissible to execute children who curse their parents?
8. Is it morally permissible for a divorced person to remarry?
9. Is it morally permissible for a victorious army to kill the male prisoners they have taken and to rape their female relatives?
10. Is the Bible a source of sound moral teachings?
11. Who is a more ethical person, an atheist who does the right thing because it is the right thing to do, or a Christian who does the right thing because he is scared that if he does the wrong thing, God will find out and punish him?
Citations for the morality survey:

1. Is it morally permissible to have children just so they can tell you how wonderful you are? (God made us, some people say, so we could worship him)

2. Is it morally permissible to have children so you will have someone to work around the house? (God created Adam because he needed his garden tended; this is particularly strange, since God could have created a self-tending garden.)

3. Would it be morally permissible for parents who were going away for a week to leave a jar full of crystal meth in plain sight in the living room and give their teenage child instructions not to try it. And if the child ended up trying the crystal meth, who would you blame? (The Tree of the Knowledge of Good and Evil in the Garden of Eden) Also, if you are going to put a tree of the knowledge of good and evil inside the Garden of Eden, why put snakes in the garden as well? And if you are going to put snakes there, why give them the ability to talk?

4. Is it morally permissible to punish the descendants of people who have done bad things? (We are punished for Adam’s sins)

5. Is slavery morally permissible?
   a. If you think that slavery IS morally permissible, is it morally permissible to sell your daughter into slavery? (Exodus 21:7. Notice that this is right after the part of the Old Testament where the Ten Commandments are stated, so it seems strange to say that this “commandment” doesn’t count.)
   b. Is it morally permissible to beat a slave, as long as you don’t kill him? (Exodus 21:20)

6. Is it morally permissible for us, in order to punish guilty people, to punish innocent people at the same time, when we could easily avoid doing so? (The story of Sodom and Gomorrah, Genesis 18, when Abraham is trying to talk God out of destroying Sodom and Gomorrah if there are innocent people there. Notice that God knows who the innocent are, and can easily protect them from punishment; this isn’t true in human law enforcement.)

7. Is capital punishment morally permissible? We can break this question into sub-cases:
   a. Is it morally permissible to execute people by drowning them? (A question: why did God drown nearly everyone on earth? What did they do to deserve this punishment? From Genesis 6:1: Now it came about, when men began to multiply on the face of the land, and daughters were born to them, 2that the sons of God saw that the daughters of men were beautiful; and they took wives for themselves, whomever they chose. 3Then the LORD said, “My Spirit shall not strive with man forever, because he also is flesh; nevertheless his days shall be one hundred and twenty years.”
   b. Is it morally permissible to execute people by incinerating them? (God incinerates the residents of Sodom and Gomorrah.)
   c. Is it morally permissible to execute people for homosexuality? (It was apparently because they were homosexuals that God incinerated the residents of Sodom and Gomorrah.)
   d. Is it morally permissible to execute wives for being unfaithful? (Deuteronomy 22:22)
   e. Is it morally permissible to execute children who curse their parents? (Exodus 21:17)

9. Is it morally permissible for a victorious army to kill the male prisoners they have taken and to rape their female relatives? (Numbers 31:18. Moses gave this command; he was acting on behalf of God and was not subsequently punished by God for doing this.)

10. Is the Bible a source of sound moral teachings? (If anything, most modern Christians would take the God of the Old Testament as an anti-role-model, morally speaking: We should try to behave the opposite of how He behaves.)

And these aren’t the only moral puzzles in the Old Testament:

The Tower of Babel. What happened, why did it happen, and what does this tell us about God?

From Genesis 11: 1Now the whole earth used the same language and the same words. 2It came about as they journeyed east, that they found a plain in the land of Shinar and settled there. 3They said to one another, “Come, let us make bricks and burn them thoroughly.” And they used brick for stone, and they used tar for mortar. 4They said, “Come, let us build for ourselves a city, and a tower whose top will reach into heaven, and let us make for ourselves a name, otherwise we will be scattered abroad over the face of the whole earth.” 5The LORD came down to see the city and the tower which the sons of men had built. 6The LORD said, “Behold, they are one people, and they all have the same language. And this is what they began to do, and now nothing which they purpose to do will be impossible for them. 7“Come, let Us go down and there confuse their language, so that they will not understand one another’s speech.” 8So the LORD scattered them abroad from there over the face of the whole earth; and they stopped building the city. 9Therefore its name was called Babel, because there the LORD confused the language of the whole earth; and from there the LORD scattered them abroad over the face of the whole earth.

God felt threatened by a tower built out of mud bricks! And the punishment arguably set back world harmony and peace. And if he felt threatened by a tower built out of mud bricks, what must he think about the current landscape!

God, Job, and Satan: God is delighted by Job’s morally upright character. Satan tells him that Job is morally upright because of all the rewards God has given him for being morally upright, and that if Job were deprived of these rewards, he would cease to be morally upright. God lets Satan test this hypothesis. And ironically, when Job remains upright despite all the troubles Satan causes him, God rewards Job.

And speaking of Satan, why does he exist? God banished him from heaven for his imperfections. Why not annihilate him instead?

My problem with the Tree of the Knowledge of Good and Evil in the Garden of Eden: God could have put the tree outside the Garden of Eden, where Adam wouldn’t have access to it. After deciding to put it inside, He could have enclosed it in an impenetrable fence; on deciding not to fence it, he could have removed all snakes from the garden; and on allowing snakes in the garden, he could have stricken them mute so they couldn’t give Eve suggestions that would get her and Adam into trouble. Or better still, when He was creating reptiles, He could have created snakes that lacked the power of speech, the way every currently existing snake does. But God didn’t do these things, and thereby presented Adam with a very challenging test, which he promptly failed. It was a test, I feel compelled to add, that God, as an omniscient being, must have known Adam would fail. It is best described as a case of what is legally known as entrapment.
Sometimes people hearing these things say that I am picking out the bad parts of the Bible. But if the Bible is indeed the word of God, it won’t have any bad parts. And if it does have bad parts, what reason is there to think that the parts I have picked out are the bad parts? Maybe they are the good parts, and that commandment that “Thou shall not kill” is the bad part.
Chapter 7. The Biblical Story of Creation

In this chapter, we will try to determine how, according to the Bible, the universe and the living things in it came into existence. In our examination, we will treat the Bible not as being “poetical” but as offering a viable alternative to the scientific story of creation. This, after all, is how a creationist views the creation story within the Bible.

The following material taken from The New Revised Standard Version (Anglicized Edition), copyright 1989, 1995 by the Division of Christian Education of the National Council of the Churches of Christ in the United States of America. Available on line at http://bible.oremus.org/?passage=Genesis+1 The numbers at the left margin denote the significant events that took place, the days of creation are underlined, and the verse numbers are shown in [square brackets]. The italicized material is my commentary.

The Book of Genesis, Chapter 1:
[1]In the beginning when God created* the heavens and the earth,
[2]the earth was a formless void and darkness covered the face of the deep, while a wind from God* swept over the face of the waters. [3]Then God said, ‘Let there be light’; and
[4]there was light. [5]And God saw that the light was good; and God
[3]separated the light from the darkness. [6]God called the light Day, and the darkness he called Night. And there was evening and there was morning, the first day. [7]God said, ‘Let there be a dome in the midst of the waters, and let it separate the waters from the waters.’ [8]So God made the dome and separated the waters that were under the dome from the waters that were above the dome. And it was so. [9]God called the dome Sky. And there was evening and there was morning, the second day.

Question: is there a dome? If so, what is it made of? Where are the waters above the dome? Scientists have some very powerful telescopes and yet have not found them.

[10]And God said, ‘Let the waters under the sky be gathered together into one place, and let the dry land appear.’ And it was so. [11]God called the dry land Earth, and the waters that were gathered together he called Seas. And God saw that it was good. [12]Then God said, ‘Let the earth put forth vegetation: plants yielding seed, and fruit trees of every kind on earth that bear fruit with the seed in it.’ And it was so. [13]The earth brought forth vegetation: plants yielding seed of every kind, and trees of every kind bearing fruit with the seed in it. And God saw that it was good. [14]And there was evening and there was morning, the third day. [15]And God said, ‘Let there be lights in the dome of the sky to separate the day from the night; and let them be for signs and for seasons and for days and years.’ [16]So God made the two great lights—the greater light to rule the day and the lesser light to rule the night—and the stars.

The moon (the lesser light) is not a light; it merely reflects light.

[17]God set them in the dome of the sky to give light upon the earth, [18]to rule over the day and
over the night, and to separate the light from the darkness.

Question: If the moon and stars are “set in” the dome, how can they move with respect to each other, the way they do? Furthermore, if the stars were all “set in” a dome, they would all be the same distance from the earth, but they aren’t. And finally, we have orbited the moon many times and found no evidence of it being “set in” anything. It just “floats.”

And God saw that it was good. [19]And there was evening and there was morning, the fourth day. [20] And God said,

8. ‘Let the waters bring forth swarms of living creatures, and let birds fly above the earth across the dome of the sky.’ [21]So God created the great sea monsters and every living creature that moves, of every kind, with which the waters swarm, and every winged bird of every kind. And God saw that it was good.

Question: what was the process by which the waters brought forth living things? Were living things made of water? Or did they evolve in water, the way some evolutionists think?

[22]God blessed them, saying, ‘Be fruitful and multiply and fill the waters in the seas, and let birds multiply on the earth.’ [23]And there was evening and there was morning, the fifth day. [24] And God said,

9. ‘Let the earth bring forth living creatures of every kind: cattle and creeping things and wild animals of the earth of every kind.’ And it was so. [25]God made the wild animals of the earth of every kind, and the cattle of every kind, and everything that creeps upon the ground of every kind. And God saw that it was good. [26] Then God said,

10. ‘Let us make humankind* in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the wild animals of the earth,* and over every creeping thing that creeps upon the earth.’ [27]So God created humankind* in his image, in the image of God he created them;* male and female he created them. [28]God blessed them, and God said to them, ‘Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.’ [29]God said, ‘See, I have given you every plant yielding seed that is upon the face of all the earth, and every tree with seed in its fruit; you shall have them for food. [30]And to every beast of the earth, and to every bird of the air, and to everything that creeps on the earth, everything that has the breath of life, I have given every green plant for food.’ And it was so. [31]God saw everything that he had made, and indeed, it was very good. And there was evening and there was morning, the sixth day.

A quibble: not all animals (consider lions, for example) eat “green plants for food.” (Lions do eat them indirectly, though: they eat animals that eat plants.)

It is curious that God would stop to assess everything he had made and conclude that it “was very good.” A clumsy individual attempting to repair a computer might be surprised when by jiggling a wire he can make it function: “Gosh, it works!” God, by way of contrast, is an all-powerful, all-knowing being. How could the universe he created fail to turn out well? And what would God have done if it hadn’t turned out well? Had he perhaps made and destroyed other universes before finally succeeding with ours?
The Book of Genesis, Chapter 2:

[1] Thus the heavens and the earth were finished, and all their multitude. [2] And on the seventh day God finished the work that he had done, and he rested on the seventh day from all the work that he had done. [3] So God blessed the seventh day and hallowed it, because on it God rested from all the work that he had done in creation. [4] These are the generations of the heavens and the earth when they were created.

But read on:

In the day that the Lord God made the earth and the heavens, [5] when no plant of the field was yet in the earth and no herb of the field had yet sprung up—for the Lord God had not caused it to rain upon the earth, and there was no one to till the ground; [6] but a stream would rise from the earth, and water the whole face of the ground—[7] then the Lord God formed man from the dust of the ground,* and breathed into his nostrils the breath of life; and the man became a living being.

Conclusion: man was created when there were no plants. Man had been #10 on the previous list; plants had been #6, meaning that man had been created when there were plants.

The dust on the ground would not have the same chemical makeup as a person, so God would have to miraculously transform it into other chemicals to make Adam. Why bother with the dust, then? Why not just create Adam out of nothing?

[8] And the Lord God planted a garden in Eden, in the east; and there he put the man whom he had formed. [9] Out of the ground the Lord God made to grow every tree that is pleasant to the sight and good for food, the tree of life also in the midst of the garden, and the tree of the knowledge of good and evil.

Then god created plants. Plants had been #6 on the previous list, created before man.

[10] A river flows out of Eden to water the garden, and from there it divides and becomes four branches. [11] The name of the first is Pishon; it is the one that flows around the whole land of Havilah, where there is gold; [12] and the gold of that land is good; bdellium and onyx stone are there. [13] The name of the second river is Gihon; it is the one that flows around the whole land of Cush. [14] The name of the third river is Tigris, which flows east of Assyria. And the fourth river is the Euphrates. [15] The Lord God took the man and put him in the garden of Eden to till it and keep it. [16] And the Lord God commanded the man, ‘You may freely eat of every tree of the garden; [17] but of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall die.’ [18] Then the Lord God said, ‘It is not good that the man should be alone; I will make him a helper as his partner.’ [19] So out of the ground the Lord God formed every animal of the field and every bird of the air, and brought them to the man to see what he would call them; and whatever the man called each living creature, that was its name.

So God made animals of the field and birds of the air out of “the ground.” Again, the problem of chemical composition arises.

A seeming inconsistency: land animals and birds were created simultaneously. In the previous list, birds had been #8 and cattle had been #9 (created on different days).

Another seeming inconsistency: both plants and animals were created after man. In the previous list, though, man, #10, had been created after plants and animals.
The man gave names to all cattle, and to the birds of the air, and to every animal of the field; but for the man there was not found a helper as his partner.

It is astonishing that God, an omniscient being, would have thought it possible that an oxen, a lark, or a field-mouse would have made a helper and partner for Adam, particularly if by “partner” we mean a mate. (See “The Parade of the Animals” on the next page.)
The Parade of the Animals

1. The Biblical description of the parade:
   a. God was afraid man would be lonely, so he decided to “make him a helper as his partner” [18]
   b. So “out of the ground the Lord God formed every animal of the field and every bird of the air”[19]
   c. Then God “brought them to the man to see what he would call them; and whatever the man called each living creature, that was its name.”
   d. The animals this included: “all cattle, and ... the birds of the air, and ... every animal of the field”[20]

2. This raises a question of interpretation. It is fairly clear what is meant by all the cattle and birds of the air. But what is meant by the animals of the field?
   a. One possibility: Domesticated animals other than cattle? This would be a manageable group, and would include sheep, goats, horses, pigs, and llamas.
   b. Or did it include animals that might be found in the field?
      i. This would include mammals (including mice, shrews, ferrets, rats, foxes, and raccoons); it would include reptiles (including lizards, snakes, and turtles); and it would include very many insects (including grasshoppers, ants, termites, beetles, and bees).
      ii. Some evidence that “animals of the field” should be interpreted broadly: we know that there were snakes in the Garden of Eden.

3. The process of bringing forth all these animals for Adam to assess would have been cumbersome.
   a. There are 10,000 species of birds, so the process of introducing Adam to the birds would have taken quite a long time. The parade of animals would have included such exotic birds as hummingbirds (of which there are more than 300 species), penguins, and ostriches.
   b. If we take “animals of the field” to mean any animal that might be found in the field, Adam would have had an astonishing number of animals to consider.
      i. It would include many different mammals and reptiles.
      ii. It would include very many different insects: There are 4,000 species of termites, 12,000 species of ants, and 300,000 species of beetles.
   c. Notice that besides including all the birds and animals of the field that now exist, the parade of animals would include birds and animals that have gone extinct. (According to creationists, after all, new species cannot evolve, so any animal that ever existed had to have existed at Adam’s time.)
      i. Among the birds that are now extinct are the dodo bird and the passenger pigeon, along with the twelve-foot tall giant Moas and the Elephant Bird of Madagascar, which was 10 feet tall and weighed 880 pounds.
      ii. The parade of animals would also have included animals that, because they became extinct so long ago, exist only in the fossil record.
         (1) This would include “birds” such as pterodactyls and what appears to have been a rather vicious bird: the Gigantoraptor, which was 26 feet long and weighed more than two tons.
         (2) It would also include reptiles such as T. Rex. (You would think Adam would have said something about being introduced to the T. Rex as a possible helper, but if so, Genesis fails to record his comments.)

4. So here is the picture we are left with: God brings forth unto Adam a cow, followed by a hummingbird, followed by a stork, followed by a grasshopper, followed by a different species of hummingbird, followed by a beetle, followed by a dinosaur, and so on, presumably for years or even decades. For each animal, Adam is asked to give it a name and to assess its suitability as a “helper and partner.” But among all these animals, “there was not found a helper as his partner.”

5. A more sensible way for God to have proceeded:
   a. If all God wanted is for Adam not to be lonely, make another man, or make many men.
   b. Or, if this thought did not occur to God, He should, after a few rejected animals, have asked for Adam’s thoughts on helpers. This is what a parent might do after her child had rejected the first five things she suggested he eat for lunch. She would ask what the child wanted or what sorts of food the child liked. She would not, if she had any sense at all, proceed by suggesting meal after meal: “Okay, then, how about guacamole? No? Then how about eggs Benedict? No? Then how about Lucky Charms cereal? No? Then how about ...”
   c. And even more significantly, since all the other animals that God had created were created in paired sexes, and since what God was interested in coming up with was a helper as partner for Adam, it should have occurred to God, fairly early on, to make a human female for Adam. It is bizarre that God would have had to parade all the other animals before Adam and have them rejected before this idea occurred to him!

6. Thus, the “Parade of the Animals” described in Genesis is simultaneously a charming and bizarre story.
So the Lord God caused a deep sleep to fall upon the man, and he slept; then he took one of his ribs and closed up its place with flesh. And the rib that the Lord God had taken from the man he made into a woman and brought her to the man. Then the man said, "This at last is bone of my bones and flesh of my flesh; this one shall be called Woman,* for out of Man* this one was taken." Therefore a man leaves his father and his mother and clings to his wife, and they become one flesh. And the man and his wife were both naked, and were not ashamed.

A seeming inconsistency: woman was created after man. In the previous list, though, they appear to have been created at the same time, as item #10.

In a rib, there would not be enough matter to make Eve (the law of conservation of mass), and the matter that was present would be of the wrong chemical makeup (too much calcium), so after getting the rib, God would have to miraculously transform it into other chemicals and increase its mass. Why, then, bother with a rib at all? Why not just create Eve out of nothing?

According to the Biblical account, God apparently created Adam with nipples that were utterly useless. It was only later, when He realized that he had to make Eve, that he figured out something useful to do with nipples. Likewise, when God created Adam, he apparently had gonads. Why give them to him when there were no females around? This is very strange behavior on the part of an omniscient being.

And along similar lines, why give Eve female genitalia? Presumably she was created to be Adam’s sexual partner, and presumably God’s plan was that they would engage in reproductive activities and make additional human beings. And yet, although Adam and Eve, when they were created, were both anatomically sexual, they were apparently “psychologically asexual”: they “were both naked and were not ashamed.” (There are two ways to be “naked and not ashamed”: you can either be like a three-year-old brother and sister, or you can be like members of an orgy club. Presumably, Adam and Eve fell into the former category.) But without sexual desires, it was pointless for them to have sexual organs; they would, after all, have no motivation to use these organs! It was only after they ate the “apple” that they became psychologically sexual; it was only then, we are told, that “they knew that they were naked; and they sewed fig leaves together and made themselves loin coverings.” (Genesis, 3:6.) In other words, it was only after they had failed the “test” God set for them that they became psychologically sexual, meaning that it was only then that they could fulfill the function for which God had made Eve. So he must have planned on them failing the test! So why give the test in the first place? And why punish Adam and Eve for failing it? And even more significantly, why punish all of Adam and Eve’s descendants for this failure? (Notice, too, that unless Adam and Eve had failed the test, there wouldn’t be any descendants to punish; it is all very strange!)

Another important question: when were bacteria created? If God hadn’t created them, life on earth as we know it couldn’t exist.

And one other thing. In Genesis 4, Adam and Eve had Cain and Able as sons. Cain killed Able and then went to the land of Nod, where he and his wife had a child. Who was Cain’s wife?

Conclusions: Some people at this point would throw up their hands in despair and say, “The Bible is just giving a poetic story.” If they say this, I will stop my attack. (Except maybe to point out that a good story will at least be consistent. This story isn’t. It is also hard to tell what the story-teller is trying to say.) Realize, though, that for a creationist, the Biblical story of creation is not poetry; it is held up as an alternative to the scientific story of Creation!
Chapter 8: Why Believe the Bible?

1. **Job #1** of the Christian creationist, as we have seen, is to explain in detail the Biblical story of creation. We have seen the problems that arise when we try to do this. Let us now turn our attention to **Job #2** of the Christian creationist: If we can figure out what the Bible is telling us in its creation story, we are left with the question of why we should believe this story rather than some rival creation story.

2. Normally, Christians carry out **Job #2** by asserting that the Bible contains the word of God. To establish the truth of this assertion, however, they must do two things:
   a. **Job #2A**: They must come up with evidence that God exists. (Notice that if God doesn’t exist, the Bible can’t contain His word).
      i. And before they argue that God exists, they must tell us what they mean by “God.”
         (Strangely, although most Christians feel certain that God exists, they find it hard to characterize God. This makes their belief in God seem “contentless”: they don’t know what they believe.)
      ii. St. Anselm on God:
         1) St. Anselm was a Christian theologian who lived in around 1100 A.D. He characterized God as “the being than which no greater being can exist.”
            a) This characterization tells us much about God.
               i) How much does he know? Everything, since otherwise, we could imagine a greater god.
               ii) How powerful is he? All-powerful, since otherwise, we could imagine a greater god.
         2) The advantages of choosing this characterization:
            a) The God of Christianity will either be superior to the gods of competing religions, or it will turn out that those religions, without realizing it, are in fact worshiping the Christian God.
            b) Student arguments for the existence of God.
            c) It is easy to prove the existence of this god: If God did not exist, we could easily imagine a being greater than Him (given two gods, one of whom exists and the other of whom does not, which is greater?); according to Anselm’s characterization of God, though, we cannot imagine a being greater than God; therefore, God exists.
               i) This argument is known as the ontological argument and is sometimes stated in the following form: God has all perfections (since he is, according to Anselm, the greatest being imaginable); existence is a perfection (since failing to exist counts as a major imperfection); therefore, God exists.
            d) In fact, we can use a slightly modified version of this argument to show that God doesn’t just exist but necessarily exists.
               i) Your existence is contingent: we can easily imagine you not existing. We can imagine, for example, that your parents never met or that your father, before he met your mother, had an unfortunate accident while bullfighting.
               ii) A god whose existence is necessary, by way of contrast, would be a god who could not fail to exist.
               iii) The revised ontological argument: A god who necessarily exists is more perfect than one whose existence is contingent. Therefore, if God has all perfections, he necessarily exists.
                  1) Notice that by proving that God’s existence is necessary, we provide ourselves with an answer to what otherwise would be an awkward question: Who made God? If God necessarily exists, no one had to make him; he could not have failed to exist.
                  2) Since your existence is contingent, we can meaningfully ask who made
(3) The problems with the ontological argument:
(a) First, a variation of the argument can be used to prove the (necessary) existence of a perfect golfer. Yet, we all know that such a golfer does not exist. (Tiger Woods looked like a candidate for the job, but no longer.) Therefore, this form of argument must be flawed.
(b) Second, by assuming that God has all perfections, the ontological argument runs into the **Problem of Evil**: If God is perfect, he is perfectly knowing (he is omniscient: he knows everything), he is perfectly powerful (he is omnipotent: he can do anything) and he is perfectly good (he is omnibenevolent). Why would such a god allow evil to exist, as it obviously does?

b. **Job #2B**: If they succeed in demonstrating that God exists, creationists must show that the Bible (rather than the Quran, for example, or Hindu writings) contains His word.
   i. Sometimes Christians, when asked how they know the Bible contains the word of God, will **quote the Bible**, which says it contains the word of God. Such an argument is, of course, circular. If we accept such arguments, we should also think the Quran contains the word of God, since it claims to contain the word of God.
   ii. We can break Job #2B into two subtasks:
      (1) **Subtask #1**: Prove that the “original Bible” contained His word.
         (a) It might have been “made up.” This is what you think regarding most rival religious texts, including the Quran and (if you aren’t a Mormon) the Book of Mormon. How do you know that the Bible isn’t also “made up”?
      (2) **Subtask #2**: Prove that modern day Bibles are the same as the “original Bible.” If they were significantly different, then even though the original Bible might have contained the word of God, modern Bibles might not.
         (a) You will encounter two difficulties in trying to carry out this subtask.
            (i) **First difficulty**: We don’t possess the original Bible so we can compare.
               1) We don’t really know how or when the Old Testament came into existence. Some have suggested that it is simply a “compromise document” composed of various stories that were around in the ancient world. This would explain the two theories of creation in the opening pages of the Book of Genesis.
               2) We do know who wrote the stories that are found in the New Testament and when they wrote them. But realize that the New Testament is best viewed as an anthology of short stories, assembled by an editor. This editor thought some were worthy of inclusion and others were not. And actually, there were several rival editors, with a consensus gradually forming. It took until the late 4th century AD for the Bible to have roughly the same contents as it now does. And even now, there are debates regarding material that got left out, including the Gospel of Mary, the Gospel of Judas, and the Gospel of Thomas.
            (ii) **Second difficulty**: Even if we did have it, the original Bible is written in an ancient language, and we can’t be sure we are translating it correctly.
               1) For evidence for this claim, go to a Bible store and look at all the different translations of Bibles. Which one is correct?
Chapter 9: Intelligent Design Theory

1. Intelligent Design Theory (as espoused by Michael Behe, William Dembski, and others) claims that living things could not end up like they are without the involvement of an intelligent designer, but makes no reference to a specific designer. The intelligent designer could be a being other than God or could be a committee of beings, for that matter.
   a. William Dembski attempts to place design theory into a broader scientific framework.
      i. He notes that in some fields of science, we require the ability to determine whether or not something is the result of intelligent design:
         (1) Cryptography: is a series of symbols random, or is it the product of intelligent design? (Does it, in other words, contain a message?)
         (2) Archaeology: is a strangely-shaped stone found near remains of human-like evolutionary ancestors a natural object, or was it shaped by intelligent beings (in which case these ancestors must have been intelligent)?
         (3) SETI (the search for extraterrestrial intelligence): Does a signal from space have a natural origin, or is it the product of intelligence? In the movie “Contact,” the prime numbers between one and a hundred were repeated over and over.
      ii. Dembski developed a “filter” that he thought could be used to determine whether or not something is the product of intelligent design. He then applied this filter to life and concluded that life is the result of intelligent design. He admits, though, that it would take an additional argument to prove that the designer in question was God.

2. Michael Behe claims that living things are simply too complex to have come into existence without the involvement of an intelligent designer.
   a. He introduces the notion of irreducible complexity. A mousetrap, he argues, is irreducibly complex: remove one of its five parts, and it stops working.
   b. He then argues that many of the organs of living things are irreducibly complex: remove one part from these organs, and they cease to function and therefore cease to have survival value. Evolutionary processes, though, can not bring into existence organs that have no survival value. Examples of irreducibly complex organs:
      i. The human eye.
      ii. The flagellum (the “propeller” of a bacterium is an example of a flagellum).

3. Some replies to intelligent design.
   a. First reply to ID theory: the intelligent designer of living things could not have been all that bright; otherwise, he wouldn’t have made all the design errors he made.
   b. A partial list of design errors:
      i. The retina of the human eye: the photo-receptors should be in front of the nerves and blood vessels, not behind them. Significantly, the eyes of an octopus do not also have this design error.
      ii. The tail bone: the only thing you can do with it is break it!
      iii. Wisdom teeth
      iv. The female pelvis is too narrow, making childbirth both painful and dangerous.
      v. Pubic hair (particularly in humans who didn’t have the benefit of soap and hot water)
      vi. Male nipples (I mean, really! What was the intelligent designer thinking??!!)
      vii. Goose bumps. They make perfect sense if you are covered with hair. By making hair stand on end, it can either become a better insulator (and thereby keep you warm) or make you look bigger (and thereby scare off other animals). But without hair, goose bumps are utterly pointless.
      viii. Introns (the parts of genes that contain “garbage” DNA)
   c. Notice that evolutionists can easily account for these errors: evolution proceeds, after all, by a process of trial and error.
      i. Evolution also has a wonderful explanation of why we have tail bones (we evolved from animals that had tails) and why we get goose bumps (we evolved
from animals whose skin had hair).

d. Someone could expand on this line of thinking to argue that since God is infinitely wise, and since the “intelligent designer” makes obvious blunders, God and the intelligent designer could not be one and the same being.

e. Someone could also raise these flawed-design objections against Christian creationism.
   i. An infinitely wise God, it can be argued, would have done a better job of creating us than he did. Tailbones? Male nipples?
   ii. His creation of the universe also seems to have been incredibly wasteful. Why create an entire universe, full of colliding galaxies and lifeless planets, just so in one tiny portion of it, you can have life? An architect who designed a hundred-room mansion with only one room that can be used would be woefully incompetent. God, however, has created not a hundred-room mansion with only one useful room, but a trillion-room mansion with only one useful room. What a waste!

f. Second reply to ID theory: Dembski’s “intelligence filter” has come under attack.
   i. It is possible for very complex things to come into existence through random processes. Example: the English language did not have a designer.

g. Third reply to ID theory: the notion of irreducible complexity has come under attack.
   i. Mousetraps remain useful even when they lose a part. They can, in particular, be used for other purposes, such as geeky tie clasps.
   ii. The same can be said of the eyes. An explanation of how eyes might have evolved: 
      https://www.youtube.com/watch?v=mb9_x1wgm7E
   iii. The same can be said of flagella. Flagella seem to have started out as tubes for puncturing other organisms.

h. Fourth reply to ID theory: if we accept the notion of an intelligent designer, it gives rise to another question: such a designer could not have come into existence merely as an accident, so who designed the designer? We soon find ourselves in an infinite regress. (The same problem does not arise with a necessarily existing designer, but then you are faced with the challenge of showing that the designer necessarily exists.)

4. Given the problems with both creationism and intelligent design theory, why do people believe them?
   a. I would like to suggest that it is because it lets people believe two things that science rejects.
      i. No child wants to be told by his parents that he was “an accident”—that he was brought into existence because his mother had consumed too much tequila. We want to be intentionally brought into existence by a loving parent. According to science, though, we are an accident.
      ii. We want someone looking out for us; we even want someone to have a plan for us. According to science, though, no one is looking out for us and no one has a plan for us.
   b. In conclusion, many people find the scientific story of creation to be emotionally unacceptable, and as a result, they turn to creationism or intelligent design.

5. In the remainder of this class, we will take a look at the scientific story of the creation of the universe and the living things in it. In doing this, we will learn much about how science operates and about how scientific reasoning differs from religious reasoning.