M17A1 Logic & Errors

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Chapter 1 Logic And Fallacies Of Logic (An Introduction

Logic is governed by strict guidelines to evaluate the ways knowledge is obtained and to evaluate what we study, what we observe and retain as learned knowledge. Scripture says in Hebrews 5:14 that adults use reason along with their senses “to discern both good and evil.”

We may choose to believe our intuition without logic. I just listened to a January 6 hearing where Georgia (US) Secretary of State Brad Raffensperger recounts explaining point by point the facts in the election counting process with a lawyer representing President Trump. This lawyer acceded to the evidences of a fair election as described by Raffensperger but insisted that he still believed “in my heart” that votes were stolen. He believed in the lie because he so much wanted to believe it.

Superstition and speculation is deduction made without proof. This kind of reasoning resembles sand castles, pretty but fragile. God reprimands Job for his “words without knowledge.” Job 38:2 He rebukes the man who remained faithful to Him despite’s his losses and personal suffering. Even we Christians must beware of holding dear any illogical conclusion of theology because doing so we built the sand castle to admire instead of looking at and fully entering the fortress of God.

Isaiah wrote: “For precept must be upon precept, precept upon precept, line upon line, line upon line, here a little, there a little.” (Isa 28:10) This is logic following the principles of science. Modern science may mislead us when it builds on a premise in opposition to or without God. But the process of science, systematic and sequential, applies to meaningful Bible study.

Christians sometimes rush to answer the critic against the Bible and the critic within the church. More often than not the critic’s accusations and supporting logic is flawed. All too often the Bible and church defender rebuts charges without any greater understanding of logic. Each gets a bit bruised, but confusion reigns among those listening to learn the truth. Apologists need to better understand logic.

Inductive reasoning builds from an assortment of examples, often observable. Inductive reasoning involves probabilities; the greater number of incidents seeming to demonstrate the truth of the matter, the greater probability the truth has been established. Inductive reasoning starts with gathering data before coming to a conclusion presented by the data currently gathered. Note that this data collected might be inadequate.

Deductive reasoning starts with generally agreed upon assumptions. It makes inferences from what is commonly agreed upon to proceed to specific conclusions. It’s difficult, for me at least, to concisely explain deductive reasoning. I don’t think there’s a grand *ah ha* moment. Yet deductive reasoning is probably more common in the analytical sciences while inductive reasoning dominates the physical sciences. Religious truths are mostly determined deductively. I think that while this is certainly true, long established and agreed upon fallacies developed in the long past inhibit deductive recognition of religious truths that diverge from historically accepted premises. We must be sure our premises, upon which we base deductive reasoning, are consistent in truth.

We need caution when embracing traditional premises and we need caution to avoid epheremerical new thoughts. Tradition doesn’t carry absolute truth. What we think we know is generally what we have been taught. We must not cling to tradition *merely* because it seems safest. We must be willing to question what we’ve been taught to believe is final truth. On the other hand, chasing every fleeting idea carries great responsibility. Either way we must beware:

Mark 9:42

But whoever causes one of these little ones who believe in Me to stumble, it would be better for him if a millstone were hung around his neck, and he were thrown into the sea.

We don’t want to cause another soul to fall because we hold back from unpopular premises and we don’t want another soul to fall because we fall for everything new under the son. Christian leaders have responsibilities to study like the Bereans of Acts 17:11 who “received the word with all readiness, and searched the Scriptures daily to find out whether these things were so.”

The lecturer gave some examples of deductive reasoning.

Premise 1: If Rover is a dog, then Rover is an animal.

Premise 2: Rover is a dog.

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Deduction: We deduce that Rover is an animal. True

Premise 1: If Rover is a dog, then Rover is an animal.

Premise 2: Rover is not a dog.

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Deduction: Therefore Rover is not an animal. False, Rover may be a cat and therefore an animal. I read today on twitter about a cat named Rover.

Premise 1: Jepthah offered his daughter as a sacrifice.

Premise 2: The Israelites offered sacrifices regularly. --------------------------------------------------------

Deduction: Therefore, Israelites offered their daughters as sacrifice regularly.

False, Not all Israelites followed Jepthah’s practices.

Premise 1: Obscene books contain descriptions of man-woman relationship Premise 2: Songs of Solomon contains descriptions of man-women relationship.

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Deduction: Therefore, Songs of Solomon is an obscene book.

Not all books telling of man-woman relationships are obscene.

Any false premise makes the deduction wrong. The false premise may be true more often than not, but any deviation makes it wrong.

My college roommate’s favorite book of the Bible was Song of Solomon. He liked the conclusion that even the Bible could be seen as obscene. Yet medical textbooks show greater graphic intimacy, but these graphics aren’t shown for arousing obscene passions. They then are not obscene books, although the non-student may get obscene pleasure from them.

“Songs of Solomon has been written for a specific purpose, and not to manipulate carnal passions. … the purpose of Songs of Solomon is to teach the joys of right-man right-woman relationship. The addition of this premise makes a lot of difference in the deduction imposed by the critic.” -Lecturer

Chapter 2 Errors And Fallacies Of Deduction - Errors Of Interpretation

‘Every man is mortal’ can’t reasonably be expressed as ‘every mortal is a man’. All living creature are mortal, not just men. Even the giant tortoise is mortal although the tortoise may live three times as long as most people and no person can observe the entire lifespan of the giant tortoise.

There are errors of ambiguity. The church sign advertising “If you want to know all about hell, come next Sunday to our church" will generate chuckles because of the ambiguity. I might think to myself “Why would I want to share space with such evil people?” Of course, I believe hell is misrepresented by many Christians as revenge by an angry God. I see eternal death as a gift from God for people unwilling to want to live in the purity of heaven. (And perhaps the lecturer would find these thoughts as illogical because of the usual understanding of the word eternal.)

Bible translation is difficult. Languages have differing structures and exact translations can be difficult.

“The famous quote, "thou are Peter and on this rock I will build my Church" (Matthew 16:18) comes into this category. It is difficult to translate this sentence with the same implications as found in Greek, and has therefore been misquoted by people to establish Peter's apostolic superiority.” -lecturer

I did not understand the example illustrating falicy of accent: “Lord Jesus commands His followers to love their neighbour.”

Chapter 3 Errors And Fallacies Of Deduction - Fallacies Of Form

The fallacy of four term deductive logic.

Function logic restricts itself ((apparently) to two closely related premises to result in a deduced conclusion.

All men are sinners

I am a man

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Therefore I am a sinner.

But using four terms, at best loosely connected we have

All men are sinners.

All angels are spirits.

We have four terms; men, sinners (ok) and angels, spirits (also ok). But we have two premises that are not tightly linked. Men are neither angels or spirits, therefore there can be no conclusion resulting from these unrelated premises. Thus we can have no conclusion in this matter.

We can also have premises that seem to match but don’t because one of the three words in the two premises has a different meaning from the other.

The judge looked into the case.

Boxes are a type of case.

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The judge looked into a box.

The seemingly matching word in the 3 word in this syllogism has a different meaning in the two premises. A law case differs markedly from a box.

Another example:

Evolution is change.

We see change everywhere.

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We see evolution everywhere.

But in the second premises change doesn’t refer to evolution without contrivance.

I fail to understand the explanation of middle in the expression undistributed Middle. I certainly understand the fallacy of the example:

All dogs have four legs.

All tables have four legs.

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Therefore all dogs are tables.

But I don’t see a middle. Tables and dogs are admittedly not in the same class. But this example seems to me another fitting more closely with the example relating to cases. Yes, dogs and tables are not comparable in any way. I suppose you’re saying the word tables is in the middle of legs/legs. But I’d have trouble at this point labeling the incorrect logic as you label it.

The lecturer’s examples for illicit major and illicit minor make perfect sense. I fail to understand the terminology. Agreed, the premises

Every man is a sinner.

A Woman is not a man.

Are both true statements, despite the arguments of the trans community. But the conclusion “A woman is not a sinner” is not justified by the stated premises. The primary premises did not state “Only men are sinners.” An agreed upon premise that only men are sinners could justify the stated conclusion. But half the population would rigorously protest the needed premise for the conclusion to be true.

The two logic pairs

Every man is a sinner.

Every woman is a sinner.

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Every man and woman is a sinner.

and,

Every man and woman is a sinner.

A woman is not a man.

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A woman is not a man, but she is a sinner.

Does form a properly deduced truth.

Negative premises are inherently unstable and “Therefore it is a rule of syllogism that it is not possible to arrive at a meaningful deduction from two negative premises.” -lecturer

Fallacy arising out of two particular premises, whatever that means. The examples:

Some radio broadcasts are false propaganda.

Some radio broadcasts are educational. ------------------------------------------------------------------------------

Some educational broadcasts are false propaganda.

But of course there's the possibility, small probably, that an occasional educational broadcast could be entirely true and valuable. It might of course be tedious to pay attention to.

What we need is a universal truth in our sillogisms. “Some” doesn’t cut it.

All radio broadcasts contain some error.

Some radio broadcasts are educational.

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All educational broadcasts contain some error.

If we can agree on both premises then the conclusion fits the logic. It’s not proven true but it agreed that it is true.

A popular form of logic I see on twitter fits an example given by the lecturer:

If God exists, people should be happy (they should not suffer)

People are not happy (they suffer) ----------------------------------------------------------------------------------------------

God does not exist

But ‘should’ be and ‘will’ be aren’t the same thing. And the premises don’t take evil into the equation. Furthermore, joy in the Lord doesn’t translate to happiness. We may have lost a child to death and grieve while remaining confident in the promise of the Lord to see and hold our child after the resurrection and thus know joy in his promise, amidst our unhappy grief.

Chapter 4 - Errors And Fallacies Of Deduction - Fallacies Of Multiple Meaning

A is a Christian, but is a very bad character.

B is a Christian, but is a very bad character. -----------------------------------------------------------------

All Christians are bad characters.

This is presumptuous logic. Apparently I know two Christians and deduce from my limited sample that ‘all’ Christians are bad characters. Actually, all I actually know is that at least some Christians are bad. Or more personally, perhaps all the Christians that I know are bad.

Another example:

No one can read the whole Bible in a day.

Proverbs is a part of the Bible.

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Therefore no one can read Proverbs in a day.

Here I’ve divided the Bible into books and mistakenly deduced that if a person can’t read the Bible in one day, then neither can they read part of the Bible in one day. Obviously, baby steps are possible. Otherwise we’d never get anything done.

Test questions that say ‘all’ or ‘none’ are suspiciously false. In the syllogism

Indians are religious.

Rajan is an Indian.

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Rajan is religious.

We are generalizing ‘all Indians’ when all is too sweeping a generalization. In all likelihood, Rajan is religious. But this statement gives us no particular information on Rajan other than that he is Indian. In percentages we may expect he attends temple, mosque, or church but we have no evidence that this particular Indian is religious. Going from general to particular provides insufficient evidence for a conclusion.

“If a person is forced to make a deduction from premises that are not properly connected, this forced deduction will in all probability be wrong. This kind of error is called the fallacy of dilemma.” -lecturer

Chapter 5 - Errors And Fallacies Of Deduction - Fallacies Of Concept

Proof or disproof must be clear and not ambiguous. Otherwise, deductions are wrong due to the fallacies of concept.

Circular reasoning is never valid. A deduction can’t reasonably function as a premises for the conclusion. This is an example of circular reasoning. The minor premise is the conclusion.

Miracles are impossible and therefore the Bible is false.

The Bible is false because miracles have been shown to be false.

Another example:

Rock music must be good because everybody likes it. Everybody likes rock music because if is good.

There really is no minor premise here, just a hanging conclusion stated twice.

Bad logic doesn’t mean the apparent conclusion is wrong. It’s just that the syllogism is inadequately constructed to form a valid conclusion. Two premises that properly form the structure for a resulting conclusion are needed.

You mustn’t combine questions in a premise. The premise must involve only one question. For example:

Have you stopped beating your wife? Implies the question of whether you have been beating you wife. To stop you must have been beating her. To properly deduce we must divide that question as follows:

Have you been beating your wife?

If so, have you stopped.

We must have both questions. We can’t justifiably ask two questions and permit only one answer.

Chapter 6 Fallacies Of Induction

The four categories of faulty induction are

1-Fallacies Due To Faulty Language.

2-Fallacies Due To Faulty Observation.

3-Fallacies Due To Faulty Logic.

4-Fallacies Due To Human Nature.

Faulty language

In ordinary conversation, ambiguity and uncertainty are common. We yet manage to communicate due to our shared experiences. And we can ask for clarification when we’re unsure. We’re not in debates, simply sharing experiences. In debate or formal discussion this ambiguity and impreciseness must be avoided.

1. Fallacy due to multiple meaning

In ordinary conversational context, multiple meanings aren’t often a problem. And any mixups provide light humor. When reasoning deductively or inductively, we must carefully avoid misunderstanding. Change is loosely synonymous with evolution but it is not equally equal.

In preciseness, change and evolution differ significantly. Fantasy is world’s different from the meaning of imagination. Fantasy is less real and less possible.

The words education and indoctrination may both refer to teaching or learning. But indoctrination suggests biased information taught as universal fact.

2. Fallacy due to undefined terms

The word miracle can have an achievement connotation or it can have a divine, otherworldly connotation. Irrigation desert fields through massive dams is a miraculous achievement. Cinematography seems miraculous, as does computer artificial intelligence. But both are achievements following physics and mathematical principles. Successful neurological surgeries seem miraculous.

But what’s truly miraculous is that our brains were designed by a non-human God to be able to mentally conceive these wonders. We live in a world that previous generations in near history could only imagine. And older generations could only see in fantasy.

In countries like China, democracy is limited compared to democracy in the U.S. and I believe in India. There’s more democratic freedom in the U.S. than in China. Muslims in China known as Uyghurs often experience forced indoctrination in rigorous camps to remove their reliance and loyalty to their religion. That doesn’t yet happen in the U.S., although traditional democracy has been under stiff attack in the U.S. over the past six years.

Historically, evangelical hasn’t been a troubled word in the U.S. And entomologically evangelical is a positive word. But so much white nationalism today envelopes the word evangelical that it’s become dually equivalent to racist by many is our country.

3. Fallacies due to figurative language

When the nature and actions of God are mentioned, terms related to human nature and actions are used to [figuratively] describe them. All of this is figurative speech, and their non-literal or figurative nature must be understood or acknowledged before any right kind of conclusion can be made.

The comparison of God to Father requires the understanding of a loving father. It can be difficult for a person who grew up physically and sexually abused by their biological or step father to feel drawn to our Heavenly Father. They must at least become accustomed to knowing men who behave respectfully to them.

Faulty Observation

Human prejudices, preconceptions, tendencies to observe only what is favourable, to ignore what is hostile, and similar biases make many of the reported observations less than complete or reliable. -lecturer

A Bible critic can condemn King David for nudity when accompanying the ark of the covenant to Jerusalem. His first wife Michal, raised as the daughter of King Saul, was embarrassed that her husband David wasn’t proudly dressed in the kingly finery she was used to. She derides him as .”uncovering himself today in the eyes of the maids of his servants.” (II Samuel 6:20)

“David was wearing a linen ephod" (II Samuel 6 : 14) He was covered, although perhaps dressed more like a commoner, probably having cast off his royal robe as he danced joyfully among the people bringing the ark home from the agricultural fields.

Fallacies Due To Faulty Reasoning

We can too quickly draw conclusions. When I grievously sin, or think I have, and then get seriously sick I may generalize from the proximity of these two events that God is inflicting punishment. Faulty reasoning that makes emotional sense to me…

Einstein's Theory of Relativity applies to matter and energy. It does not prove that everything in the Universe, including social and ethical values, are relative. Einstein was a physics scientist, not a social scientist.

“When false causes are proposed to explain an unrelated phenomena, and when false generalizations are made, the conclusions are wrong due to false reasoning, and is called fallacy of Hypothesis.” -lecturer

Conclusions from incomplete data come from “opinions, prejudices and circumstantial evidence. This is the fallacy of hasty generalization.” -lecturer

Fallacies Due To Human Nature

We can be influenced by our group identities to lose our grip on logic. Our natural bent is to agree with the biases of our group. We can be punished when we point out the illogic of the group’s biases.

Our individual experiences can shape our biases. Even when we shake our group identities’ influences, our reading and listening choices can unduly influence us to miss logical clues. We may believe what we’re subconsciously led to believe without thinking a decision through. We are often ignorant regarding our presuppositions.

Different religions attach different meanings to words like sin, salvation, after-life, justification, grace, saviour, and righteousness, etc. We may say the same words and very much fail to be talking about the same things. I personally experienced this in Sunday evening discussions at the Church of Christ where my wife was paid to play the piano. We’d argue until we defined our words and usually discover we weren’t disagreeing at all.

“Induction and deduction are powerful tools of logical reasoning. All logical reasoning must be governed by rules of induction and deduction. This is not easy because of the variety of rules, the complexity of everyday problems, and man's perpetual desire to come to quick conclusions. Consequently, many popular inferences are rendered wrong and even ridiculous.” -lecturer

Disciplining oneself to the principles of logic isn’t easy. But the apologist loses when he lacks at least a basic understanding of logic. Cute turns of phrase may convince sometimes but cuteness isn’t logic. Appeals to bias often convinces those on the fence. But biases are a low blow in apologetics. We must exert ethics on our reasoning.

**God and Logic by Gordon H. Clark, one time Chairman of the Dept. of Philosophy, Butler University**

*Note: I took a couple of graduate level teaching courses one summer at Butler University in Indianapolis, Indiana, USA.*

Gordon Clark translates John 1:1 as “In the beginning was Logic, and Logic was with God, and Logic was God.... In logic was life and the life was the light of men." It generally reads “In the beginning was the Word…” Clark suggests that the biblical Greek allows for the idea of logic. After all, I would say, God created all the natural world, the physics and mathematics this natural world functions in. And natural science is the realm where logic appears *natural*, if I may be so literal.

“Scripture, the written words of the Bible, is the mind of God. What is said in Scripture is God's thought.” -Clark

Clark describes the contempt Christian radicals throw at Lutherans and Calvinist’s, saying these Bible believers worship a paper pope. Conservatives are accused of Bibliolatry when they accept the Bible as revealing the *mind of God*.

Paul says in 1 Corinthians 2:16 “we have the mind of Christ”. Paul does not refer to the thoughts in our head. He refers to our possession of the scriptures, *the mind of God*. “The Bible consists of thoughts, not paper; and the thoughts are the thoughts of the omniscient, infallible God,” -Clark

“God, Scripture, and logic are tied together. The Pietists should not complain that emphasis on logic is a deification of an abstraction, or of human reason divorced from God. Emphasis on logic is strictly in accord with John's Prologue and is nothing other than a recognition of the nature of God.” -Clark

Logic in Man

Only humans were created in God’s image. Human were given minds that could at least begin to understand the immaterial and logic. The image of God is not ***in*** mankind. Man himself is the image of God. Only mankind has a rational thinking ability after the type of God’s eternal, ever- present rationality. “Throughout the Bible as a whole the rational God gives man an intelligible message.” -Clark

We do not have the omniscience of God. Our reasoning ability may grow in the hearafter. But God gave us a powerful gift when he created mankind to grasp the concept of logic. Because of this gift God could give Adam the responsibility to care for God’s creation. He gave Adam a role beyond feeding himself.

“God gave Adam a mind to understand the divine law, and he gave him language to enable him to speak to God” -Clark He gave us the ability to worship him in awe. God gives even our tiniest humans the ability to obtain language rapidly. All we as adults have to do is talk and these tiny humans pickup syllable patterns and then word patterns. They are born to think.

We don’t just depend on God’s generous handouts. We can communicate with him in ways that our pets cannot and wild creatures can’t naturally approach. “No universal and necessary proposition can he deduced from sensory observation.” -Clark We can observe and deduce, we can inductively think. We may not have the knowledge that God possesses. But we can work rationally with the knowledge we acquire.

I don’t feel comfortable with the law of contradiction. But Clark’s examples in his conclusion help. 2=3=4 is a contradiction. A dog is not a cat even though they can become friendly companions. In the absence of the law of contradiction, everything is the same and perhaps nothing. I rather think the hundreds of Solomon’s wives often experienced life as if the law of contradiction didn’t exist. Of course, the eunuchs serving and protecting them provided a semblance proving the law of contradiction.

“God is a rational being, the architecture of whose mind is logic.” -Clark

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1. How this module helped your studies?

Note: I find questions 1, 2, and 4 to be closely equivalent. Perhaps my responses to question 2 should have been distributed.

2. What new lessons you learned?

We need caution when embracing traditional premises and we need caution to avoid epheremerical new thoughts. Tradition doesn’t carry absolute truth. What we think we know is generally what we have been taught. We must not cling to tradition *merely* because it seems safest. We must be willing to question what we’ve been taught to believe is final truth. On the other hand, chasing every fleeting idea carries great responsibility. Either way we must beware:

Mark 9:42

But whoever causes one of these little ones who believe in Me to stumble, it would be better for him if a millstone were hung around his neck, and he were thrown into the sea.

We don’t want to cause another soul to fall because we hold back from unpopular premises and we don’t want another soul to fall because we fall for everything new under the son. Christian leaders have responsibilities to study like the Bereans of Acts 17:11 who “received the word with all readiness, and searched the Scriptures daily to find out whether these things were so.”

As a Seventh-day Adventist, I may be speaking from the point of view of a new*ish* church/denomination, established in 1861-1863. We highly respect the reformers who broke from the restrictive confines of the religious force that dominated even the civil forces in the reformers’ age. The fault we find is that the individual denominations largely stayed at the teachings of their inaugurating, reforming leader. They did not continue in reforms. Or sometimes they may have even regressed in reform. “The Reformation did not, as many suppose, end with Luther. It is to be continued to the close of this world’s history.” Ellen G. White, The Great Controversy (Mountain View, Calif.: Pacific Press Pub. Assn., 1911), p. 148.

Perhaps much could be said about the SDA church. We also are reticent to move far beyond our founders. I’m not sure I support major changes in my church but I fear that at each General Conference we retrench deeper to the old ways. At the same time, I do believe we have grown in regard to our *Investigative* Judgment doctrine. Today it is preached as a positive, affirming action of God. But at the same time we insist on using the term *investigative* which has little if any connection to what we teach today. Investigative comes across as prosecutorial when we today teach that Satan is the prosecutor, Jesus our defense counsel who shows God our life record redacted by his blood, no judgmental record recorded against us.

3. Your critical evaluation on the topic. We mean what is the shortcoming you see in the text, your suggestions for improvement.

1. I did not understand the example illustrating falicy of accent: “Lord Jesus commands His followers to love their neighbour.”

2. I fail to understand the explanation of middle in the expression undistributed Middle. I certainly understand the fallacy of the example.

All dogs have four legs.

All tables have four legs.

-------------------------------------------

Therefore all dogs are tables.

But I don’t see a middle. Tables and dogs are admittedly not in the same class. But this example seems to me another fitting more closely with the example relating to cases. Yes, dogs and tables are not comparable in any way. I suppose you’re saying the word tables is in the middle of legs/legs. But I’d have trouble at this point labeling the incorrect logic as you label it.

In the appendix by Clark I read “Romans 5:13 is a hypothetical constructive syllogism.” Where the biblical text reads

KJ21

For until the law, sin was in the world, but sin is not imputed when there is no law

CJB

Sin was indeed present in the world before Torah was given, but sin is not counted as such when there is no Torah

I could have benefited by an explanation. I believe at least some form of the law has always existed. The Hammurabi Code resembles the Torah and I believe precedes the Torah. I believe God shared the law in Eden and also perhaps spoke to the sons of God such as Seth, Enoch and Noah much like he inspired the prophets of Israel. He certainly gave the fourth commandment in Eden, worshipping with the created humans celebrating the completed creation. I don’t think there’s been a time when the world had no law. God sent the flood because evil had overwhelmed the world. Those who laughed at Noah as his family entered the ark are redeemed? Not likely, although of course I’m not God.

4. How does this lesson help you?

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