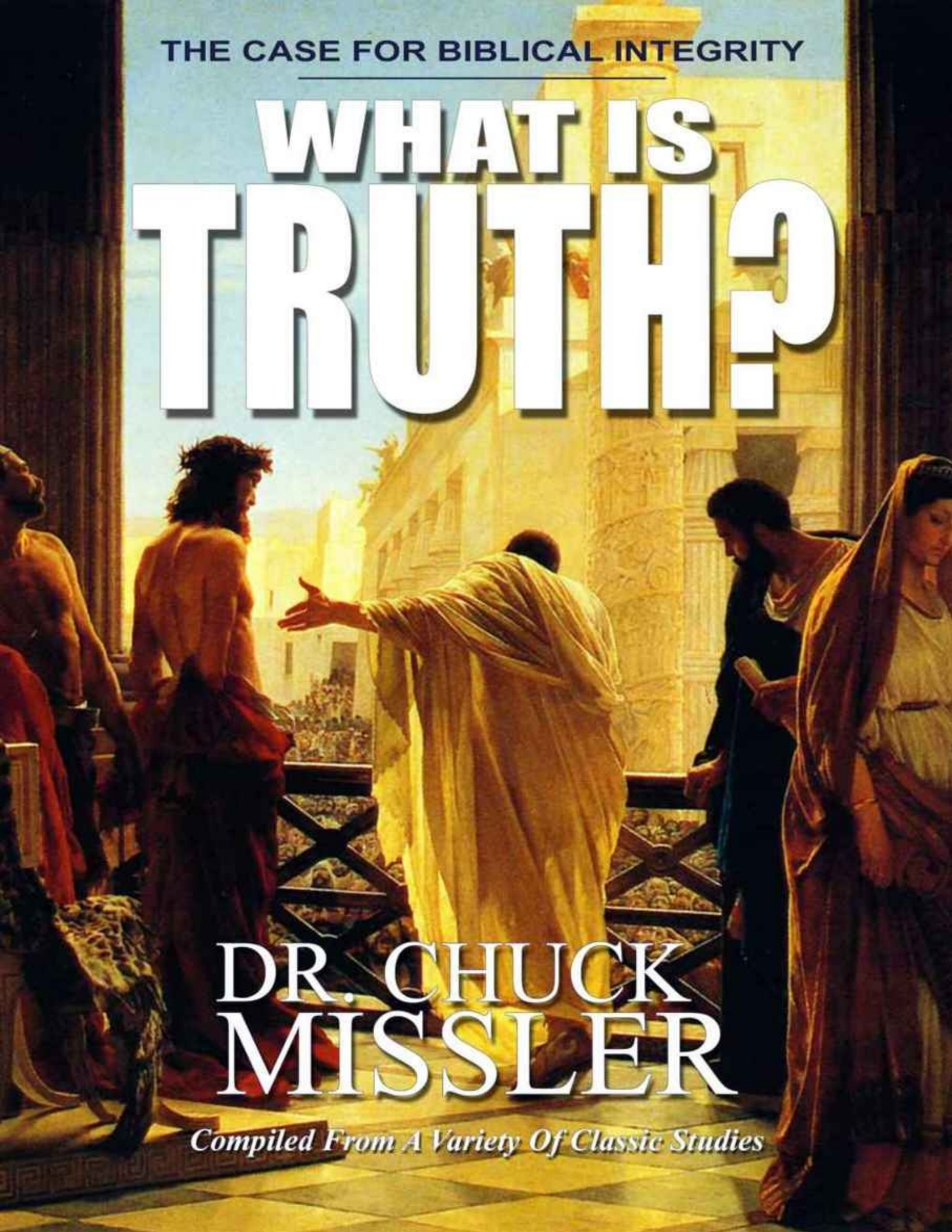
THE CASE FOR BIBLICAL INTEGRITY

WHAT IS TRUTH?



DR. CHUCK MISSLER

Compiled From A Variety Of Classic Studies

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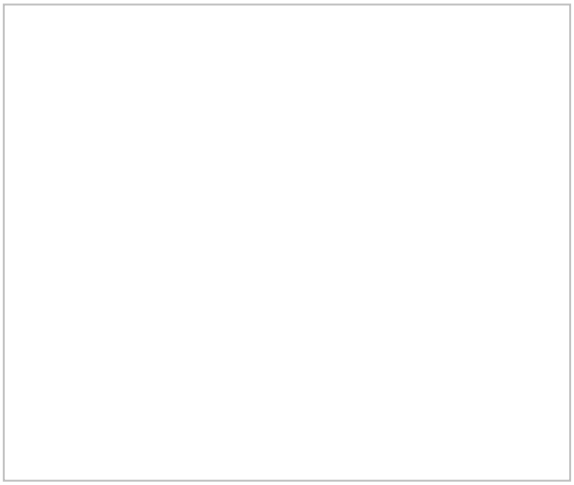
By Chuck Missler



What Is Truth? The Case for Biblical Integrity
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WHAT IS TRUTH?

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1. The Basic Challenge Before Us All

What is truth? That was the rhetorical question of Pontius Pilate when he was facing Truth, in Person. Like Pilate, we are all faced with this basic challenge: "What is truth?" Perhaps that question can be refined even more, to the most crucial question: "How do we know the Bible is true?"

The first step is to recognize today's skeptical environment. There are attacks on every side for the very existence of truth. Society espouses relativism by saying, "You have your truth; I have mine." This is accompanied by attacks on the Bible itself—the very fountain of truth for mankind, the very basis of our heritage. Of course, there are also attacks on the Lord Himself.

This is all happening with a cosmic warfare going on in the background. Scripture makes it clear that we are faced with spiritual adversaries whose principal weapons are deceit and doubt. That was Satan's first move in the Garden of Eden. To ask the question, "Hath God said?" raises doubts that God really said what He said. That strategy echoes throughout the centuries and is very, very pervasive in our civilization today.

So how do we know the Bible is true? The traditional approach to defending the Bible tends to be a bit scholastic. There is another approach that uses branches of science that would not commonly be connected with the Bible. It's quite astonishing to realize how the discoveries of modern science in just the last century have totally altered our understanding of the reality in which we live. This approach is an exploration of the very boundaries of what we think of as reality.

It may seem strange, but this approach will even require consideration of messages from outside the boundaries of our reality. These are messages that are extraterrestrial; they actually have their origin outside the space-time of earth. There are also some hidden discoveries in the Biblical text itself that may be surprising.

This is the rather unorthodox line of inquiry that we will use as we examine the

basis for having confidence in the Bible.

2. Attacks on Truth

There are attacks from the pagan left that are very organized, very sinister, and possibly motivated supernaturally. One attack comes from a very popular book, *The Da Vinci Code*, by Dan Brown.[1]

This is a very readable, and very cleverly crafted, novel. Although it masquerades as a novel, it confronts the reader with a fact sheet in the front of the book with three paragraphs claiming that these things are true and accurate when they're not; they're deliberate deceptions. The statements are not accidental misunderstandings, but a deliberate attempt to deceive, confuse, and disrupt the faithful.

That book has given rise to a whole cottage-industry of rebuttals. Anyone interested in a rebuttal has an abundance of books to help them sort out the various premises and misinformation that pervade Dan Brown's colorful, but blasphemous, novel.

Despite that, *The Da Vinci Code* was heralded by the press. "A masterpiece that should be mandatory reading," says *The Library Journal*, "a compelling blend of history and page-turning suspense."[2] "An exhaustively researched page-turner" was the quip from *Publisher's Weekly*.[3] That's astonishing, because it is full of misinformation and twisted history.

To make matters even worse, a major blockbuster movie by Ron Howard was released under the same name.[4] This is very much launching a tsunami across our culture; it's certainly raising questions, feeding the skeptical and confusing the marginally faithful.

The situation should challenge those of us who take the Bible seriously to really understand its origins and its foundation.

While all this is going on, the *National Geographic* joined in the exploitation. In their May issue of 2006, they featured an article on *The Gospel of Judas*.[5] They were obviously exploiting, as best they could, the groundswell from the Da Vinci movie, which was being released that same month.

The *National Geographic* had a very slick presentation, very skillfully designed to undermine traditional Biblical beliefs. *The Gospel of Judas*, which is the subject, was discovered in the 1970s. It was known at the time that Irenaeus refuted it back in 180 A.D.;[6] so this is neither new, nor newsworthy. It is certainly not historical, but it's among those documents that are used to confuse people who don't read and know their Bible.

Mel Gibson directed a movie called *The Passion of the Christ*.[7] His reviews were a little different than Dan Brown's. The *New Republic* said, "A repulsive masochistic fantasy, a sacred snuff film."[8] "Courting bigotry in the name of sanctity," was the comment in the *New York Times*.[9] "A real nut case whose ulterior motive was making money," said *60 Minutes*.

The contrast here is something strange. The deliberate deceptions of *The Da Vinci Code* are ignored by these reviewers; they seem to collude with Brown in his attempts to undermine the veracity of the Bible. The attacks on *The Passion of the Christ* expose a bias against the truth. How else can we explain the portrayal of an historical event as "masochistic fantasy," while the fictitious marriage of Jesus and Mary Magdalene can be called "researched material fact"?

Along with Dan Brown and the *National Geographic*, we have the Jesus Seminar. This gathering was an astonishing array of pseudo-experts who, in the 1980s and 1990s, exchanged subjective, speculative hunches for serious scholarship. Add to that, Peter Jennings's TV Special, the History Channel's "The Banned Books of the Bible," Hugh Schonfield's *The Passover Plot* (many years ago, in 1966), and *The Last Temptation of Christ* in 1960. Even Mel Gibson's phenomenal movie fails to communicate just who Jesus Christ really is, and that is the crux of the whole issue in the first place.

So what's going on here? This is a reversal of values. Fiction is promoted as fact, and fact, even the deity of Jesus Christ, is passed off capriciously as mere fiction. Even the undeniable grandeur of the creation itself is attributed, in our schools and in our culture, to the randomness of a cosmic accident. How astonishing—how distant this is from any real grasp of reality.

The Gnostic Fakes

We are also going to continue hearing about the Gnostic Gospels. Not even the most radical scholar seriously believes that *The Gospel of Thomas*, for example,

was written by the Thomas of the New Testament, or that the *Gospel of Phillip* was written by the Phillip of the New Testament. These are apocryphal, all written under pseudonyms.

In order to give their speculations legitimacy, the imposters attributed their writings to the apostles. These are not gospels by the way; they don't have any historically verifiable facts. They're just opinions, speculative opinions.

The early church rejected any documents that were written under pseudonyms because they felt it was inconsistent with the concept of the divine inspiration of the New Testament. All these Gnostic gospels were written centuries after the gospel period, typically in the third and fourth centuries.

They contrast with the eyewitness accounts that we find in the New Testament, and they make no real pretense of being an actual record of events. They're really just speculations of various kinds. They are anti-historical rather than simply non-historical.

The Gnostics believed that salvation came through hidden knowledge that they had received. A whole collection of their writings was found in Nag Hammadi, a village in Egypt. There are at least four dozen of these, including: The Gospel of Thomas, the Gospel of Phillip, the Gospel of Mary, the Gospel of Truth, etc.

The parables of Matthew 13 highlight the very thing we are witnessing here. Jesus described birds that pick up the "seed" of those that were not grounded properly.

> *When any one heareth the word of the kingdom, and understandeth it not, then cometh the wicked one, and catcheth away that which was sown in his heart.*
>
> MATTHEW 13:19

Paul warns Timothy, his protégé, when he writes:

> *For the time will come when they will not endure sound doctrine; but after their own lusts shall they heap to themselves teachers, having itching ears; and they shall turn away their ears from the truth, and shall be turned unto fables.*
>
> 2 TIMOTHY 4:3

That is exactly what we're watching happen in our culture.

So why are these things accepted as truth? It's certainly not due to any serious

historical research; there's not one single verifiable fact in any of these. They are fables that some people have simply chosen to embrace. Napoleon is famous for saying, "What is history, but a fable agreed upon?" That's a pretty cynical outlook, but it is the spirit of our times. Doctrinal diversity is the order of the day. There is a quest for a do-it-yourself religion, a religion that is popular, rather than necessarily true.

Traditional Defense

The traditional defenses against this attack would delve into the evidence that the ancient manuscripts present. That would include the incredible implications of the Dead Sea Scrolls and advanced documentary technologies such as laser scanning microscopes. Contemporary eyewitnesses would also be included because it is startling that none of them—not one of them—recanted, even though they suffered torturous deaths.

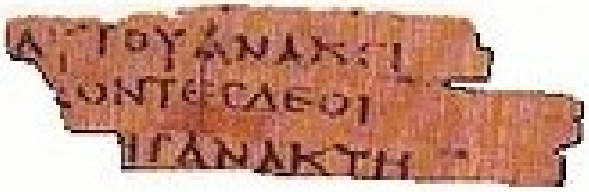
The laser scanning microscope is not well known, but such technology has been used to investigate the most important manuscripts of Scripture. Results show some manuscript fragments to be contemporaneous with the events they record.

The laser scanning microscope can differentiate various layers of the papyrus, measuring the height and depth of ink as well as the angle of the stylus used by the scribe. It can even tell whether he was right or left-handed. Researchers have learned a lot in recent years with this machine.

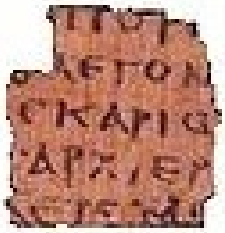
Carston Thiede used such a microscope with the Magdalene Greek Papyrus, which is located at Oxford College. He was able to date these fragments to essentially the time of Matthew's writing. For those who are interested, the text of the fragment corresponds with *Textus Receptus*.

Thiede concluded that this was either an original of Matthew's Gospel or an immediate copy written while Matthew and the other disciples, as well as other eyewitnesses, were still alive. The key fact is that they dated it very early, much earlier than some of the skeptics have said in the past.

While these are very, very compelling evidences, we're not going to focus on that traditional approach.



Papyrus 64
"The Jesus Payrus"
portions of Matthew





3. Developing a Critical Perspective

To avoid error and to find truth, we are going to explore the boundaries of our reality beginning with epistemology. That term *epistemology* means simply “the study of knowledge in terms of its scope and its limits.” It answers the questions, “How do we know anything?” and, “How do we learn anything?”

The world is filled with illusions of various kinds. These illusions can be colorful minor things, or they can be very profound issues. To understand reality, it will help to avoid error and deception. To understand truth, we need to understand epistemology.

How does learning occur through the various stages of life? Start with a playpen, when we were very, very small. An infant’s world consisted of that playpen. That was the boundary of what they perceived. In that environment, they became familiar with acoustics, colors, and texture. Three-dimensional perception began to take place; basic motor skills developed so he could reach and pick up things.

With a little maturity, the child’s world broadened to the playroom. The universe expanded to include the confines of that playroom, so they began to have more discernment of things. They were introduced to rules and an order to the routine. There were increased challenges and hazards, but these were generally not insurmountable. Hopefully, they had adequate supervision so nothing serious occurred.

The next boundary expanded to the home. There was increased mobility and more challenges. There were also hazards, and even potential disasters, but most children could cope with the new environment. More and more, subjection to guidance was essential as mobility increased.

With school, the universe expanded once again. There was also another expansion in the areas of mobility and challenges, along with the associated hazards. Subjection to guidance was even more essential until adulthood arrived and the child became an independent member of the community. They had to learn how to handle unanticipated, less predictable events. They had to start qualifying sources for guidance; whom could they trust for information?

Of course, as these children matured into full adulthood their universe expanded

to the world itself. Ultimately, they faced the cosmos, the universe in some much broader sense. At this point, the trial-and-error factor is pretty minimal. It's fairly hard to conduct experiments on the universe itself, so they become more dependent on qualifying sources of information for guidance.

That's the framework to use when facing some truly cosmic issues. Issues such as, "Is the universe infinite or finite?" Was it designed or simply the result of some kind of cosmic accident? It's really quite astonishing to see learned people come to very, very bizarre conclusions as they deal with such questions.

There are other questions too. Are there limits to size? How large is the universe? How small are the smallest elements? There are some surprising discoveries with those questions. The expression "empty space" doesn't raise any eyebrows, but is space really empty? Has time always been the same? Are there other dimensions beyond the three spatial dimensions and time? These are issues as we explore reality.

To gain a more accurate understanding of reality, a critical perspective is essential. A good place to start is with two concepts that are very frequently discussed in mathematics but, surprisingly, do not exist in the physical universe. One is infinity, and the other is randomness.

Randomness

Randomness is an elusive concept. There are mathematical tests for a series of numbers to see if they are random or not. This turns out to be a major challenge for engineers designing a computer because they need a source of random numbers. It's a challenge because of the discovery that there is no such thing as randomness.

There are things that come close to randomness. In the computer field, there are things called *pseudorandom number generators*. The absence of true random numbers leads to a whole field of mathematics called Chaos Theory.

Another term used for randomness is *entropy*. Engineers and scientists often speak of entropy as simply randomness, in an absolute sense. Most of them are trained in deterministic processes. That approach says that two plus two always equals four; two plus three equals five—always and precisely. Those are deterministic concepts.

In the real world, there is a field of processes that is commonly called stochastic processes where one or more of the variables involved are subject to some degree of randomness. The whole field of Advanced Statistics deals with this.

The pseudorandom number area surprises many because common sense would suggest that a random number could always be found. Some might resort to the famous publication by the Rand Corporation, *A Million Random Digits*.[10] But, it turns out even those numbers, while they pass a number of tests, are not truly random. That leads to Chaos Theory, but we won't spend time on that here.

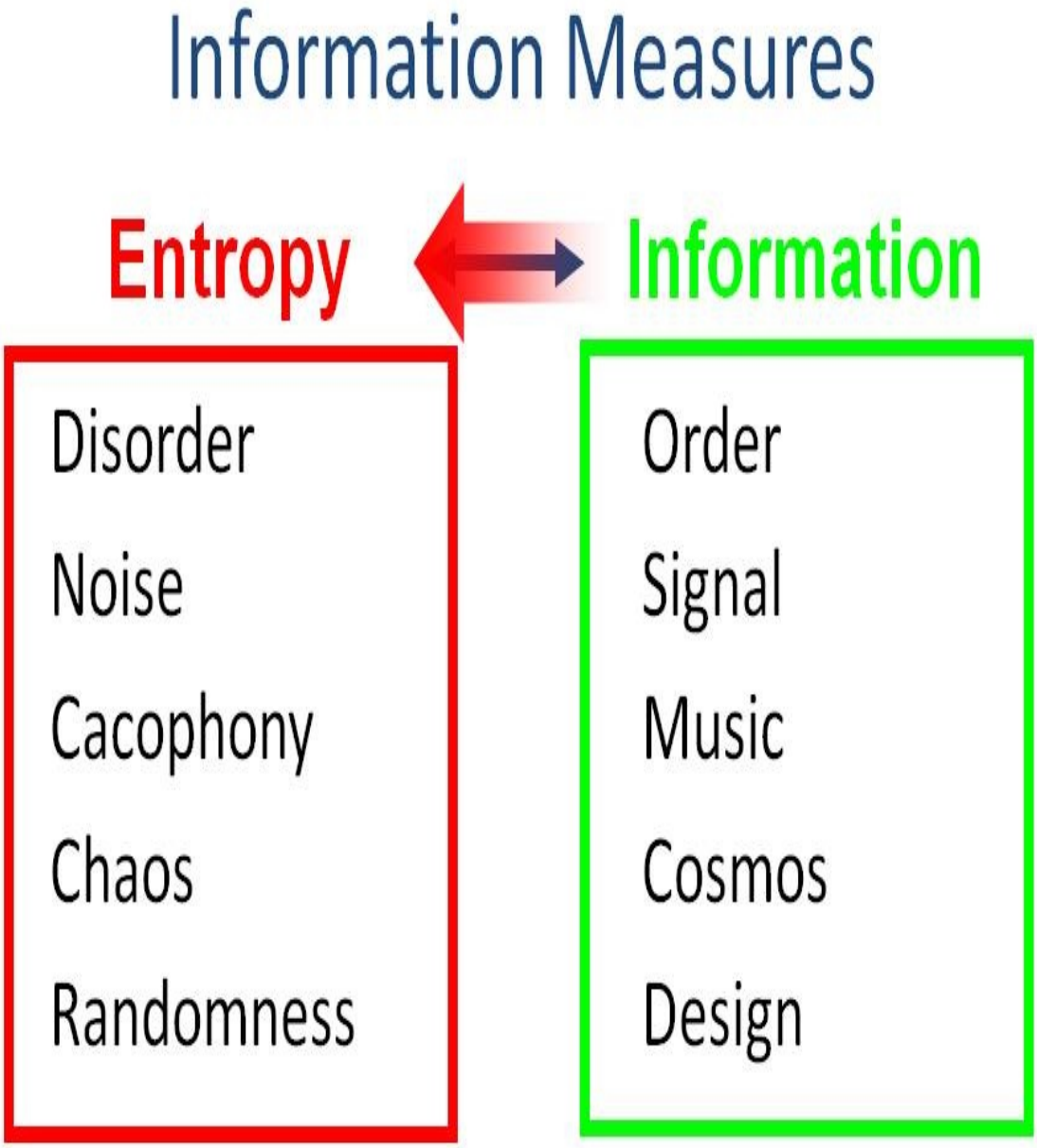
There are measures of information used to describe randomness as well. To understand this, it helps to consider opposites. For example, disorder and order are, in some respects, opposite from one another. It's usually apparent when something is ordered or disordered; a deck of cards can be in bridge order, for instance, or shuffled.

So disorder and order are opposites. Noise and signals are opposites. An engineer will speak of the signal and the noise ratio of the receiver. The signal is the part that carries information. The noise is what interferes; it has no information.

Music has an opposite: cacophony.

Chaos, absolute chaos, is in contrast to cosmos. The literal term in the Greek for "cosmos" means ordered; order comes out of chaos. On the chart below, titled "Information Measures," there is randomness, on the one hand, and design, deliberate design or intent (teleology, if you will), on the other.

Disorder, noise, cacophony, chaos, and randomness are on the left. The technical term for that collection of concepts is "entropy," which includes randomness. The entropy is maximized on the left side. On the right side is "information," it's the opposite of entropy. Order, signal, music, and design are all information.



There seems to be a law pervading every field of science in which information tends to get degraded. Through time, entropy takes over. In fact, that becomes

one of the primary laws in thermodynamics; we always move toward increasing entropy.

The whole universe operates as if it's been wound up and is in the process of winding down; order going to disorder. Anyone who has spent a Saturday cleaning up the garage, the family room, the locker at school, or a desk has observed this phenomenon. How long does it stay that way? Without the intrusion of some design, things will drift to disorder, randomness. That is true in every field of human endeavor.

The Bible makes reference to this in Proverbs 16:33:

> *The lot is cast in the lap; but the whole disposing thereof is of the Lord."*

Einstein summarized it when he said, "God does not play dice." Why? If He did, He'd win. God is in control of randomness. That's very important to remember when considering truth.

Infinity

There's another concept that eludes the physical universe called *infinity*. Infinity is discussed, put into equations and dealt with conceptually, but where can infinity be found in this universe?

Infinity and the Macrocosm

The *macrocosm* can be considered to include everything that is larger than humans; it's the big picture. That's a good place to start an exploration of infinity.

The great discovery of twentieth century science is that the universe is finite, not infinite. The initiation of the universe is known, among some, as the Big Bang, a singularity. It will burn out in *ultimate heat death*. These are the finite boundaries of the universe. To understand those boundaries, it helps to know a bit about thermodynamics.

The scientific definition of *work* states, "Work is measured by a temperature difference." As work is done, the temperature difference decreases. When the entire universe is a uniform temperature, no more work can be done. The mathematical description would be an ultimate heat death for the universe.

In thermodynamics there are three laws. The conservation of matter and energy is well known to most students; it says that you cannot create matter or energy. Matter can transfer into energy, and energy into matter, but neither can be created from scratch. In other words, the first law says, “There’s no way to win.”

The second law is the entropy law: the bondage of decay. That means all thermodynamic processes are inefficient, are less than 100%. There is some percent of the work that gets lost to the ambient temperature. That’s the Second Law of Thermodynamics. Some people might rephrase that to say, “You can’t even break even.”

Many people are not familiar with the Third Law of Thermodynamics. It says everything has a positive, finite entropy.

So, the first law says, “There’s no way to win.” The second law says, “There’s no way to break even.” And the third law says, “You can’t even get out of the game.”

It is the second law that is the most relevant to this discussion on infinity.

Thermal Decay

The Second Law of Thermodynamics deals with entropy, or *thermal decay*. Thermal decay means heat always flows from hot bodies to cold bodies. That’s easy to grasp because it’s a common human experience to get cold or warm, depending on the temperature of the environment. The same dynamic is at work in the macrocosm.

If the universe was infinitely old, the temperature throughout the universe would be uniform because heat would always flow to cold. If it’s infinitely large, there would be a uniform temperature. Temperature in the universe is not uniform; therefore, it is not infinitely old.

This very simple observation tells you that the universe has an age. It’s not infinite. The universe had a beginning. It’s destined for an ending for the very same reason. That is what the Bible tells us:

> *For by him were all things created, that are in heaven, and that are in earth, visible and invisible, whether they be thrones, or dominions, or principalities, or powers: all things were created by him, and for him: And he is before all things, and by him all things consist.*

That Greek word for *consist* actually means "sustains, holds together." The astonishing thing isn't just that the creation has been created, but that it is maintained. There are some very delicate balances involved. The book of Hebrews says much the same thing:

> *God, who at sundry times and in divers manners spake in time past unto the fathers by the prophets, hath in these last days spoken unto us by his Son, whom he hath appointed heir of all things, by whom also he made the worlds;*
>
> *Who being the brightness of his glory, and the express image of his person, and upholding all things by the word of his power, when he had by himself purged our sins, sat down on the right hand of the Majesty on high.*
>
> HEBREWS 1:1-3

God is, "Upholding all things by the word of his power." The need for maintaining the creation is an important issue and will be covered in an upcoming section.

This idea of having a beginning has led to a series of speculations. They all go by the name of the big bang theory, but each new take on the theory essentially discredits its predecessor.

The first model of this was called the steady state model. Einstein admitted this was the biggest mistake of his career. It was replaced in the '60s by the hesitation model, but was refuted in the '60s for a number of reasons. That was replaced by an oscillation model, which has been refuted by the entropy laws and the lack of mass.

The current thinking is pretty much along the lines of what's called the inflation model. The problem with this model is that it requires *antigravity forces* that have never been observed. These are the speculations of people trying to figure out how it all began.

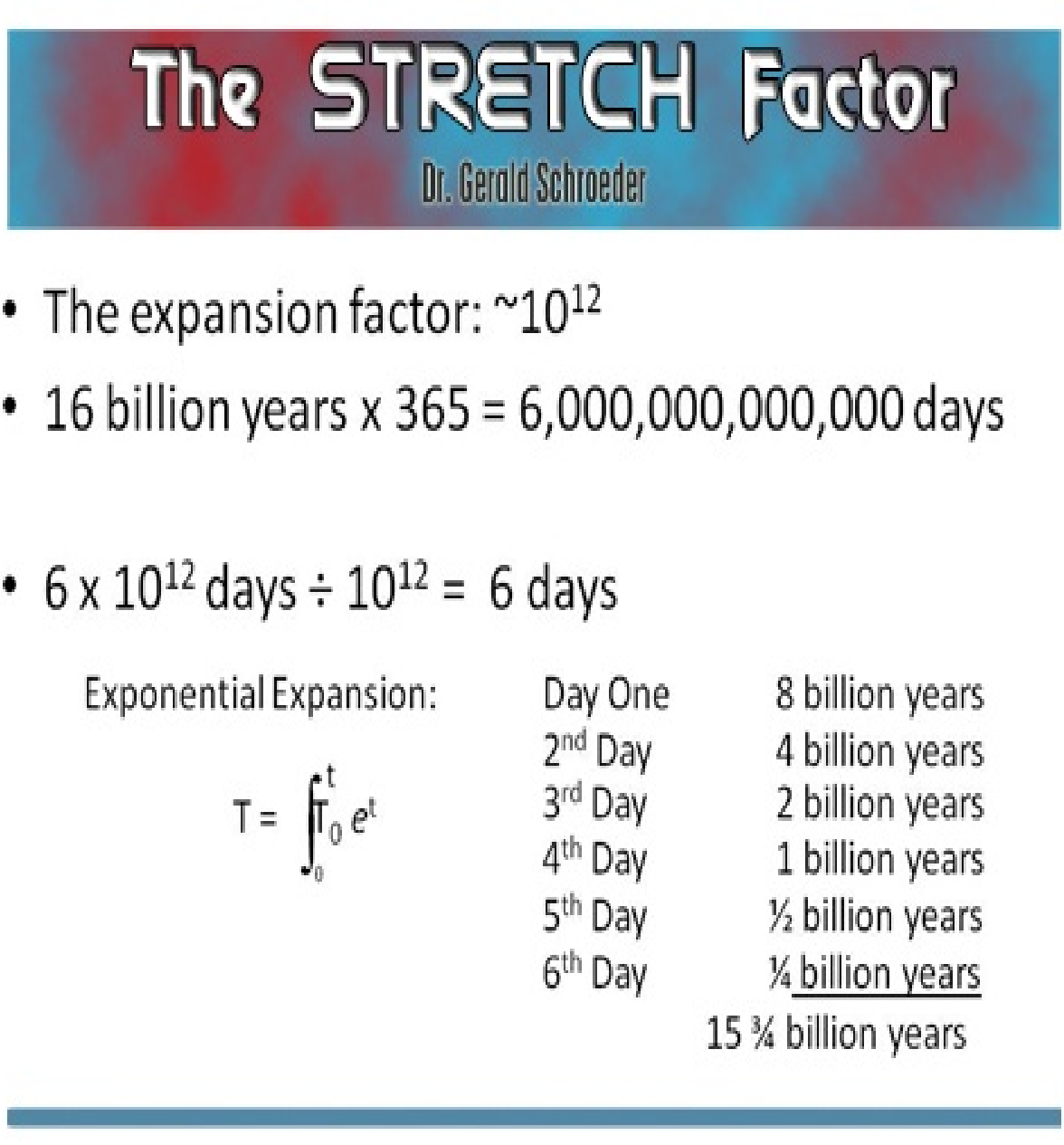
Properties of Space

There is another factor; call it the "stretch factor." The expanding universe appears to be involved in expansion of about ten to the twelfth power, or 10^{12}. That calculation comes from the temperature of the quark confinement, when matter freezes out the energy (10.9×10^{12} K°/2.73).

With that calculation, scientists estimate that the universe is about 16 billion years old. That turns out to be about six times 10^{12} days (16 billion years x 365 days = 6 x 10^{12} days). Using the "Exponential Expansion Factor" (see image), this comes to six days. That is the number God Himself used with His own finger when He wrote it in stone, as recorded in the book of Exodus:

For in six days the LORD made heaven and earth, the sea, and all that in them is.

EXODUS 20:11



If you take the exponential factor, it would imply that these "days," from God's

point of view, are fifteen billion years old. What kind of clock was running at the time? We don't know because Adam hadn't been created yet, so it depends on whose clock you're talking about. That means the earth can be six days or six billion years; both are probably true in their respective fames of reference.

What about the *fabric of space*? Is "fabric" more than a metaphor? Scripture speaks of God who alone stretches out the heavens (Job 9:8). In Psalm 104:2, He's stretching out the heaven like a tent curtain. In Isaiah 40:22, He is the One, "Who stretches out the heavens like a curtain and spreads them out like a tent to dwell in." He has "stretched out the heavens" (Jeremiah 10:12). Another example says, "The LORD, which stretcheth forth the heavens," in Zechariah 12:1. We have literally dozens of references where this same term is used throughout the Bible.[11]

Is it just a figure of speech? Today we discover that space is not, as most of us suppose, an empty vacuum.

— It can be torn according to Isaiah 64:1.
— It can be worn out like a garment according to Psalms 102:25.
— In a number of references, it can be shaken.[12]
— It will be burnt up according to 2 Peter 3:12.
— It can split apart like a scroll in Revelation 6:14.
— It can be rolled up like a mantle or a scroll in Hebrews 1:12 and Isaiah 34:4.

All of those descriptions form an interesting clue about the properties of space. We know today that empty space has an energy level that's astonishing: the equivalent of 100 million suns (10^{95} "ergs" per cubic centimeter: zero-point energy). It has *permittivity*, with an absolute dielectric constant. It has *permeability* with an absolute magnetic constant.

Any amateur radio operator knows he has to tune his antenna to the electrical properties of space itself. The *intrinsic impedance*, which derives from permittivity and permeability, is important to him.

Another property of space is the velocity of light. It is presently estimated at 2.998×10^8, or 186,000 miles per second. It is currently at the speed of gravity. The fact that the velocity of light has been changing is the astonishing discovery of just the last few years. There is a major upheaval going on in the field of

physics as we realize that the things we thought were constants are not constants.[13]

Zero-point energy is a fascinating property of space. If the temperature of an empty container is lowered to absolute zero, there is still a residual amount of thermal energy that cannot, by any means, be removed. That's why they call it the zero-point energy. What we think of as the vacuum of space, we now know is a vast reservoir. It receives energy. Out of that energy, particles are being formed and annihilated constantly.

Why doesn't an electron, as it spins around its nucleus, get attracted by the nucleus and simply radiate energy as it spirals into the nucleus? You think it would just disappear. It picks up energy from the background zero-point energy, and therefore, is sustained by it. So there is a sustaining going on right at the atomic level.

There is some sense, according to Scripture, in which space must be thin if it can be rolled up. It also must have some direction so it can be bent "toward." These terms in Scripture give a clue that there are dimensions to space beyond the ones we experience. As we've seen, science is beginning to discover and measure those additional spatial dimensions, and consequently validating what the Bible said all along.

Hyperdimensions

We tend to think of space in three-dimensions: length, width, and height. *Hyperdimensions*, or *hyperspaces*, are simply spaces that have more than three dimensions. Having a grasp on this concept will further broaden our own personal horizons.

The most important speech in mathematics was given on June 10, 1854, when George Riemann introduced *metric tensors* in the mathematics field. It took 60 years before mathematics would yield the general theory of relativity by Dr. Einstein, which he discovered in 1915. It introduced the idea of four-dimensional *space-time*.

The world is not in three dimensions; it exists in at least four: length, width, height, and time. That's three spatial dimensions, and time as a fourth dimension. A physicist will never speak of space or time separately. If he's careful, he will always speak of space-time. Space and time can't be separated. Planck's

constant[14] is a four-dimensional constant.

Here is a related passage in the book of Ephesians to consider:

> *That Christ may dwell in your hearts by faith; that ye, being rooted and grounded in love, may be able to comprehend with all saints what is the breadth, and length, and depth, and height.*
>
> EPHESIANS 3:17-18

It requires a careful look, but there is a reference to our subject embedded in the text. How many dimensions is Paul writing about? The breadth, the length, the depth, and height make four dimensions. One of those words is a Greek term that can embrace time, which is kind of unexpected. The Bible has dealt with space-time all along.

Einstein went to his death frustrated because he couldn't resolve certain issues. If he had done the same thing he did to resolve the theory of relativity, simply go up a level, it would have yielded the answer. It was in 1953 that a couple by the name of Kaluza and Klein went beyond the four dimensions and resolved the light and super-gravity issues.

And then in 1963, Yang and Mills went further to establish the electromagnetic and nuclear forces; combining all of them into a multidimensional perspective. Since 1984 the speculations have to do with *superstrings*.

Based on all that research, most particle physicists today will say they believe we live in at least ten dimensions, not just the four that we directly experience. They say four are directly measureable, three spacial dimensions plus time, and six are curled in less than 10^{-33} centimeters. These are inferable only by indirect means because they're smaller than light itself.

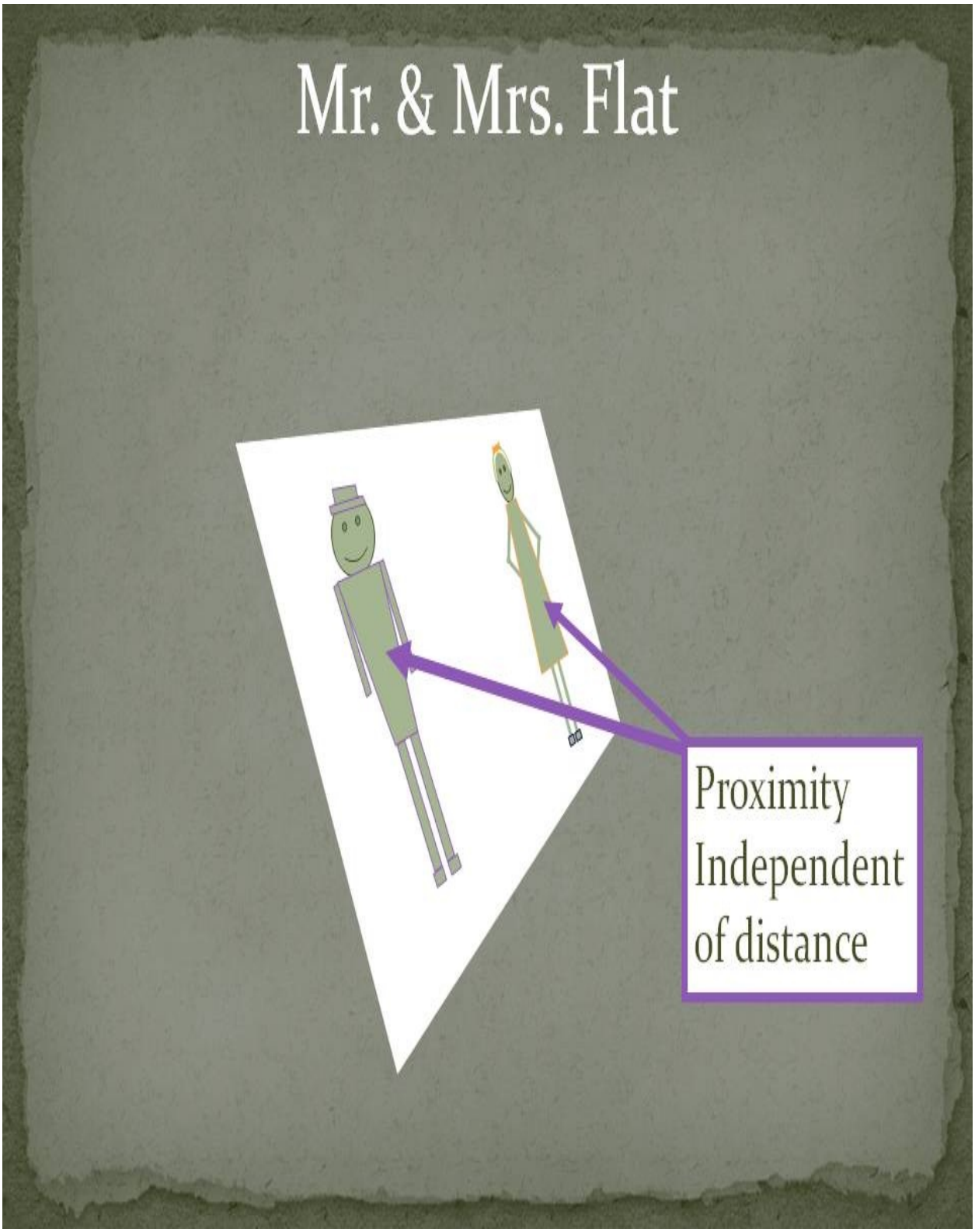
Compare that with the work of an ancient Hebrew scholar by the name of Nachmonides. In the thirteenth century, Nachmonides, in his commentary on the book of Genesis, concludes that the universe has ten dimensions. He said only four are "knowable" (in his vocabulary); six are "not knowable." We spent millions of dollars building atomic accelerators only to find what Nachmonides discovered by just carefully reading Genesis 1.

Mr. and Mrs. Flat

They say there are only two kinds of people who are able to conceptually deal with hyperspaces: mathematicians with special training and small children. They have no trouble with this at all, but the rest of us can, nonetheless, get some insights into dimensionality. In our imagination we can look down from our three-dimensional world down into a two-dimensional world and draw some insights from the experience.

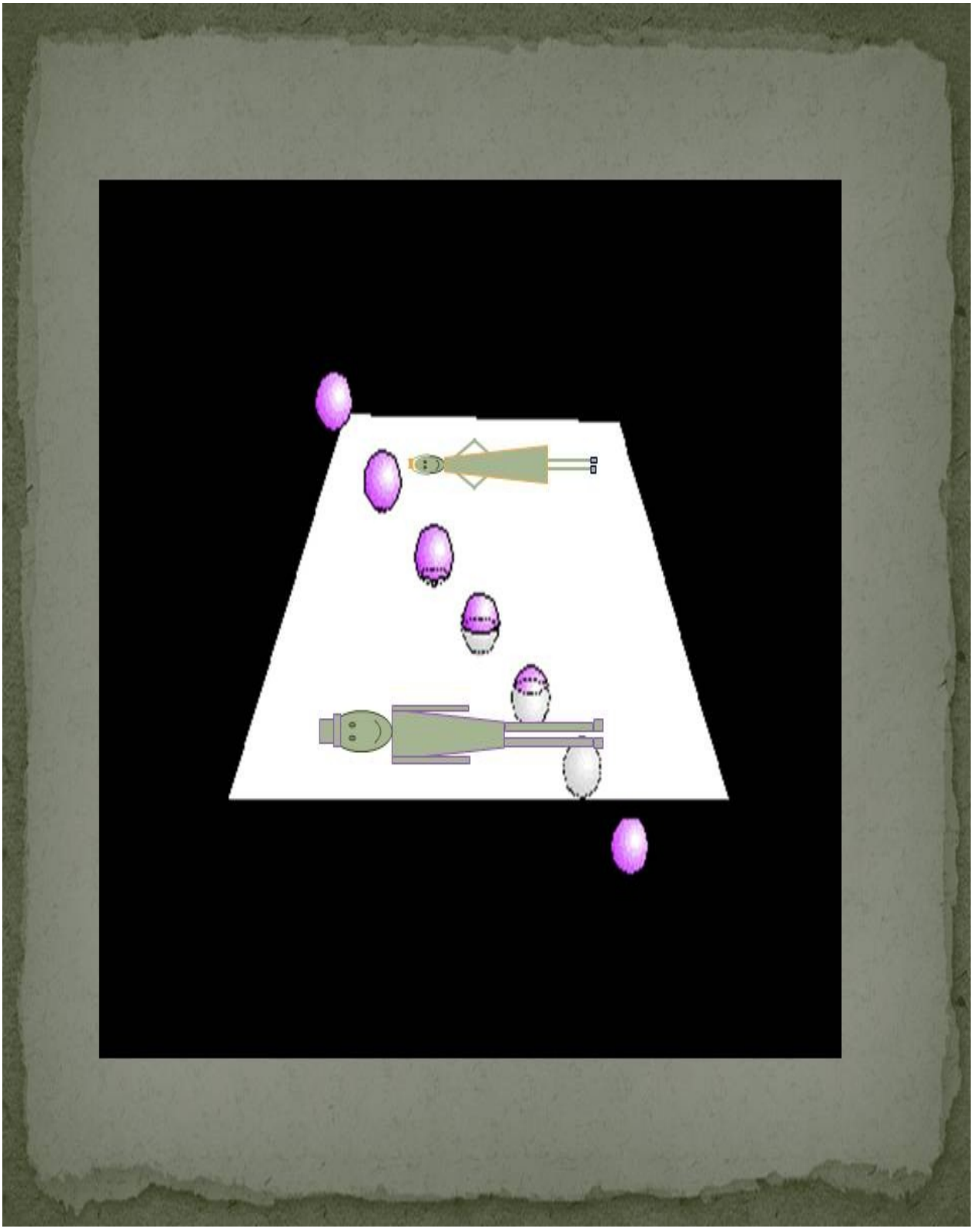
Allow me to introduce you to Mr. and Mrs. Flat.[15] Please be compassionate because Mr. and Mrs. Flat suffer from a very serious handicap. They live in only a two-dimensional universe. Imagine a universe of only two dimensions (two dimensions is what, at school, was called plane geometry), that's where Mr. and Mrs. Flat reside.

A person from a three-dimensional universe can be more intimate with either one of them than they can be with each other. They could be yards apart from each other, but because of the additional dimensionality, that person could simultaneously place a finger a millionth of an inch from each of them.



Mr. and Mrs. Flat have no concept of the space beyond the two dimensions they inhabit. If a three-dimensional sphere should fall through their two-dimensional

universe, it would first show up as a dot, expand to a circle, shrink back to a dot, and then disappear.



There are serious scientists who believe UFOs are hyper-dimensional events. There are many who believe angels are hyper-dimensional creatures. Those are speculations, but they can be justified from the insights we have from modern science, so far at least.

How could someone in three dimensions describe a three-dimensional object to a two-dimensional person?

It could be attempted with a two-dimensional projection: a drawing. It would be like drawing a cube on paper in such a way that it gives a sense of three dimensions. That's not too useful, but it helps.

A three-dimensional projection of a four-dimensional hypercube is not very useful, either. There are some of these on the Internet, but all they really accomplish is to convince the viewers that they can't instinctively understand what's really going on. So that's not very helpful.

Another way we might try to communicate a three-dimensional object into two dimensions is to unravel it into two dimensions. We might take a cube and unfold it like a box into a two dimensional representation of the box. Even then, Mr. and Mrs. Flat would still have a hard time perceiving what we really meant by a three dimensional cube.

There is a four-dimensional cube that has been unraveled in three dimensions; it's called a *tesseract*. The only place I've ever seen one, other than in a mathematics textbook, is in a piece of art. It's a very interesting piece of art by Salvador Dali called *Corpus Christi*. In this piece, he renders the cross as a four-dimensional cube unraveled in three dimensions. It's astonishing to realize that Salvador Dali had that sophistication in typology and mathematics to be able to even understand what he was saying there. That's a very effective use of both.

Infinity and the Microcosm

We have been looking at randomness and infinity in order to develop a more critical, a more accurate perspective of our reality. That perspective will help us develop an answer to our question, "What is truth?"

So far, we have considered infinity in relation to the macrocosm: the finite universe. Now we turn our attention to infinity in the *microcosm*. It may be

surprising to realize there is a limit to smallness in the universe. That field of study is quantum physics.

If a speaker claimed the podium he was touching was not solid at all, most people would say he was mistaken because it was obviously solid. In fact, the speaker would be 10 to the 15th times, or 10^{15}, more accurate than those who disagreed.

Take a simple atom, just a nucleus surrounded by an electron, it turns out the atom is 10^{-8} centimeters in diameter, and the nucleus 10^{-13}. The difference between the two is 10^{5}. Convert that to volume, 10^{5} cubed, and get 10^{15}. How big is 10^{15}?

Well, that's not very distant from the number of seconds in the universe. If you take 16 billion years for the age, and divide it into seconds, you have about 10^{16}, 10^{17}; it's in the neighborhood of the volume in this example of an atom. It's a very, very large number, which means most of that podium actually would be empty space.

It feels solid because of an electrical simulation occurring between atoms that sense each other's nearness. But it's mostly empty by a factor of one part in 10^{15}. So saying there's nothing there is 10^{15} closer to reality than saying it is solid. It turns out, there is no such thing as solid.

Take a line and cut it in half; then take what's left and cut it in half again. Take what's left and cut it in half again. Most people expect that this could continue forever, at least conceptually. That's not true. When the length of the line gets to 10^{-35} centimeters, it reaches a limit. If it is cut in half, whatever is there loses locality—it's suddenly everywhere at one instant.

There were an astonishing number of experiments back in 1982 to confirm this whole idea of what is now called Bell's inequality. All photons in the universe know what all the other photons are doing. They're all interconnected in some strange way, and that's what led David Bowman, and others, to what they call the "holographic model of the universe."

The very fact that subatomic particles have a property that's known as *non-locality* is astounding. This is true not just of length; it's true of mass, energy,

and time. The Planck length here is 10^{-33} cm, the Planck time is 10^{-43} seconds. There's no time smaller than 10^{-43} seconds.

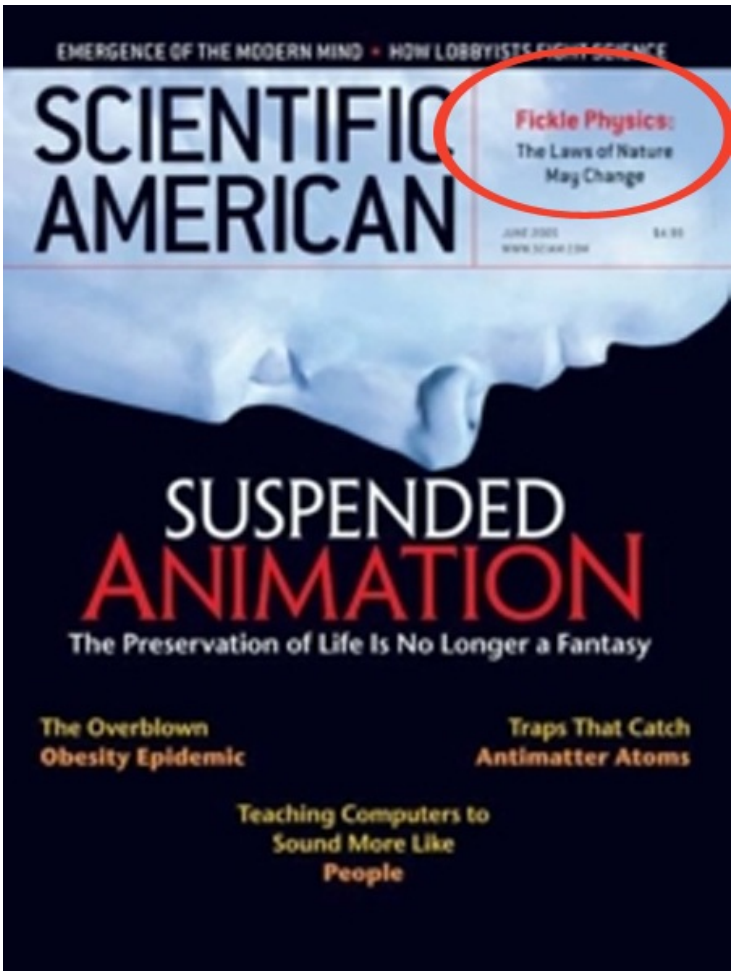
There's a movie that came out some time ago called *The 13th Floor*. It may be instructive to consider a perspective from it.

In Los Angeles, in 2005, a group of computer experts built a virtual simulation of a city and its people. They chose to create Los Angeles 1937 in this imaginary, this virtual environment. They called a person in the software system a "program unit." People from the real world could enter that world for an hour or so by exchanging their consciousness with the consciousness of one of their virtual people.

It's obviously just a science fiction story, but very cleverly crafted. In the story, an important program manager has been murdered in the real world. The hero is forced to go into the virtual world to solve the mystery because they're going to pin this murder on him if he can't solve it. That's the plotline.

Things take a huge twist when they discover there are other people entering LA 2005. When the smoke finally clears, these other people are coming from LA *2025*. The hero and his friends realize that they themselves are virtual people, merely program units. Their world is a virtual environment. It's a very carefully crafted science fiction story that offers a rough sense of what a digital projection of reality might mean.

It's conceptually provocative here because that's exactly the predicament we find ourselves in. We are in an environment in which we may make virtual games, but we ourselves are in a simulated environment in which there's a reality beyond our own.



Scientific American, in June of 2005, carried an article about constants that would have some agreement with that approach to reality. They concluded, tentatively, that "Our universe is but a shadow of a larger reality."[16] Those are their words, not mine.

So, as we have considered the boundaries of our reality, we have looked at infinity. Using astronomy and astrophysics, we have established that we live in a finite macrocosm. At the other end of the spectrum, quantum physics and the behavior of subatomic particles have shown us that the microcosm is also finite. All of us are in a reality that has definite limits, or boundaries.

We can go one step further by joining the microcosm and macrocosm, to call this total thing a *metacosm*. The entire universe, the metacosm, is made up of digits; it's a digital simulation. Everything we have is made up of individual units. It's like a piano, rather than a violin. A violin is analog; a piano is digital with one sound coming from each individual key.

4. The Anthropic Principle

Paul Davies, a secular scientist, says, “It seems as though somebody has fine-tuned nature’s numbers to make the universe. The impression of design is overwhelming.”[17] When scientists tried to build a three-dimensional model of the universe, they discovered there are strict parameters that cannot be violated or the model would fall apart. It’s very, very tightly tuned.

There are hundreds of delicate ratios that, if altered in the slightest, would render life impossible. Sometimes that change would only have to be a mere one part in 10^{55}.

The concept that the universe was designed for man is called the *anthropic principle* by scientists.

The Four Forces

As we understand the universe, there are four basic forces that are encountered: gravity, electromagnetic force, strong nuclear force, and weak nuclear force. These four forces explain everything that we know about in the universe.

Gravity is what causes an apple to fall to the ground, keeps our feet on the floor, binds together our solar system, and keeps the earth and planets in their orbits. It prevents the stars from exploding; it guides the galaxies in their motion. That’s what gravity is all about.

There’s another force, which operates closer in, called electromagnetic force. It holds the atom together. It determines the structure of the orbits of the electrons and, therefore, it covers all the laws of chemistry. Forms of electromagnetic force can include x-rays, radio waves and, of course, light.

Electromagnetic force can overcome gravity on the earth, at least for short distances. It can dominate other forces down to the size of the nucleus of an atom, but it’s there things start to change. That’s when we encounter two nuclear forces.

Strong nuclear force is what binds the protons and the neutrons in the nucleus of the atom. The balance between the strong force and the electromagnetic force

limits a nucleus to about 100 protons. That's what basically limits the periodic table. The energy released by this force is substantially greater than the energy that comes from electromagnetic, or chemical, forces. That's what causes the stars to shine and is essential for life.

The weak nuclear force governs atomic instability and radioactivity. The disintegration of heavier nuclei is involved. It creates heat such as the decay of radioactive elements in the earth's core or in a nuclear power plant.

Couplings

If the gravitational coupling was a little bit stronger, all stars 1.4 times more massive than our sun would burn too rapidly and too inconsistently to maintain life-supporting conditions on surrounding planets.

If it was just a little bit weaker, all stars would have less than 0.8 times the mass of our sun; there would be no heavy elements[18] in the universe.

If electromagnetic coupling was a little weaker, the molecules for life would cease to exist. If it was slightly stronger, the same thing would happen; making life impossible. The activity level happens to be at just the right amount.

If the strong nuclear force coupling was slightly weaker, the multi-proton nuclei would not hold together. Consequently, hydrogen would be the only element in the universe because it has only one proton.

If it was slightly stronger, nuclear particles would tend to bond together more frequently and more firmly. Hydrogen would be very rare in the universe, and the supply of various life-essential elements (heavier than iron) would be insufficient.

If the weak nuclear force coupling was larger, there would be no helium and no heavy elements. If it was weaker, everything would be helium, and there would be an overabundance of heavy elements.

Earth in the Balance

The anthropic principle can be seen not only on the atomic level, but on a much larger scale as well. Here are some of them, starting with one that deals more with atoms.

If the ratio of electron to proton mass was larger, the molecules would not form, and life would be impossible. If it was a smaller ratio, we would still have molecules failing to form, making life impossible. It happens to be set now at just the amount that's required for life.

If Earth was closer to the Sun, it would be too warm for a stable water cycle. If it was farther away, it would be too cold to have a water cycle.

If surface gravity was stronger, the atmosphere would have too much ammonia and methane. If it was weaker, the atmosphere would lose too much water.

If Earth's crust was thicker, too much oxygen would be transferred from the atmosphere to the crust. If it was thinner, volcanic and tectonic activity would be too great. It has the ideal balance right where it is now.

If Earth's rotation period was just a little bit longer, the diurnal temperature differences would be too great. In other words, if the days were too short, it would get too hot and too cold. If the rotation was slightly shorter the atmospheric wind velocities would be too great.

These discoveries are astonishing people; they are beginning to realize how delicately everything seems to be balanced.

If the actual tilt of Earth was greater, the surface temperatures would be too great. If it was less, the surface temperature would again be too great - for different reasons, obviously.

If the albedo (that's the reflectivity of the planet) was a little greater, a runaway ice age would develop. If it was a little less, a runaway greenhouse effect would develop. This is another factor that is just at that right balance.

If Earth's magnetic field was stronger, like a magnetic storm, it would be too severe. If it was weaker there would be inadequate protection from the hard stellar radiation.

If the levels of CO2 and water vapor were greater, an out-of-control greenhouse effect would occur. If it was less, the greenhouse effect would be insufficient.

If the ozone level was greater by just a little bit, surface temperatures would be too low. If it was less, surface temperatures would be too high, and too much

ultraviolet radiation would reach the surface.

Think about that one. The ecologists tell us that if the ozone level was just a tenth of one percent more or less, it would bring cosmic doom. When they say that, turn that coin over. Ask them, “If it’s that delicate, who balanced it in the first place?” The fact that it’s so delicate is an argument that it didn’t occur randomly. The more rare something is, the more “randomness” is excluded as a source of its origination.

Furthermore, if it’s that delicate, it would be intrinsically unstable unless there were countervailing factors involved. That raises another issue. Besides who balanced it; Who is maintaining that balance?



Evidence Supports It

So, is it reasonable for us to agree with the anthropic principle? Does it appear that the universe was designed specifically for human life? Let's summarize the evidence.

At the atomic and subatomic level, the slightest variation in any of the primary constants of physics, less than one part per million in some cases, causes life to be impossible.

Looking at the natural forces surrounding the earth, the delicate balance involved is astonishing. The more rare, or specific, conditions are, the more they unequivocally reveal both skillful design in their origin and diligence in their maintenance. The maintenance is often overlooked; don't forget they have to be maintained.

We haven't yet mentioned how the anthropic principle has been used in practical terms. In 1954, Sir Fred Hoyle was among the scientists who were struggling with an issue related to the Carbon-12 atom. Hoyle applied the anthropic principle to predict the level of energy they were trying to find. In the end, they discovered exactly what he had predicted. The use of the anthropic principle was very interesting, and it was very important from the scientific point of view.

This brings us back to our question, "Is it reasonable for us to agree with the anthropic principle?" Based on the evidence we have reviewed, we can acknowledge the anthropic principle as valid, useful, and having the support of the realities that surround us.

So how will our culture deal with this evidence as it becomes more widely known? The ancient cultures created false gods of wood and stone to worship. Our culture has invented the most insulting god of all to worship: randomness—the total absence of information. We've chosen to worship the absence of information, which is ignorance. Of all the false gods that man has worshiped, the one we embrace in our culture is the most insulting of all.

Indications of Purpose

You're going to hear, more and more, about the "privileged planet" because this

planet that we live on is uniquely positioned for life. As scientists study the universe—its billions and billions of galaxies, and the number of planets that might be around those stars—they discover the rarity of the conditions for life. In fact, the conditions for life are so rare that we are led to the conclusion we are unique in the universe.

We are not only uniquely positioned for life; we're uniquely positioned to discover the universe around us. This first occurred to some scientists as they were watching the eclipse of the sun. The moon is exactly the right size and the right distance to create a total eclipse of the sun. If it was a little bit bigger, or a little bit smaller, you would not be able to see the sun's corona.

With the corona visible, scientists were able to discover the elements of the sun through spectral analysis. That led them to analyzing the composition of other stars. With this experience, they also realized it was as if all this was *tuned* to allow us to discover it.

As they began to analyze our position in the galaxy, they found we're not too close or too far from the center to be able to see the rest of the universe.

They realized our eyes are sensitive to the very part of the visible spectrum that allows us to discover the universe. That's a very, very small part of the electromagnetic spectrum.

There are dozens of these reasons to think that this place has been tuned for our benefit. This implies more than accidental design; this implies teleology, a purposeful design.

There is a book, *The Privileged Planet*, by Gonzales and Richards[19] that I encourage you to get. They also developed an astonishing video[20] that uses computer graphics to demonstrate all these things. It is absolutely breathtaking and informative.

Constants

There is another aspect to the constants of the universe that should be covered. Many of the constants can be physically measured; they have dimension. There are two constants in the universe that are dimensionless. One is probably very familiar, and one is probably not familiar, except to someone active in very advanced engineering or math.

The first one is *pi*. We all learned about *pi* in school; that the ratio of the circumference to the diameter of a circle is 3.14159…. No matter what units are used to measure, metric or standard, that ratio is intrinsic to the relationship between the circumference and the diameter of a circle.

Does *pi* appear in Scripture? There are two key verses in the Bible that may help with that question. They are both about the Creation

> *In the beginning God created the heaven and the earth.*
>
> GENESIS 1:1

> *In the beginning was the Word, and the Word was with God, the Word was God*
>
> JOHN 1:1, 3

Hebrew letters and Greek letters have a numerical value for each letter, and that fact is of interest here. Take the first verse of the Bible in the Hebrew language, Genesis 1:1. Count the number of letters, then multiply that number times the product of the letters. Next, count the number of words, and multiply it by the product of the words. Finally, divide the first result by the second result and the answer, interestingly enough, is *pi* to four decimal places: 3.1415. Is that coincidence?

Before looking at John 1:1, the second *dimensionless constant* needs to be explained. It's called a natural logarithm, or *base e*. John Napier was the inventor of what we know today as logarithms. The natural, or Napaerian, logarithms are logs to the base e (Log_e).

John Napier was a mathematician in the sixteenth and seventeenth centuries. He was an activist for the Reformation, especially for the Protestant affairs in Scotland. He also established the use of a decimal point in fractions.

The number *e* shows up in advance math. It's a very unique kind of number. It has a limiting value of about 2.7183. It forms the base of natural logarithms and it appears as an exponential function.

It is the only function having a rate of growth equal to its own size. In the language of calculus, it's the only function having a derivative equal to itself; therefore, it's a fundamental function for certain equations of growth and other processes of change.

Logarithms show up in wave mechanics, in electrical theory, advanced math, and

the distribution of prime numbers. It shows up in the strangest places. In advanced math, *e* comes up as frequently as *pi* comes up in geometry.

With that introduction, come back to the first key verse of creation in the New Testament, John 1:1. Take the Greek language and repeat the same process used with Genesis 1:1 (the number of letters times the product of letters, divided by the number of words times the product of the words). The result is *e* to four decimal places: 2.7183.

That doesn't prove any doctrine, but it certainly grabs our attention. It may connect with a strange rabbinical opinion about the Torah. They not only believe God created the universe, they believe the Torah contains the templates by which He did it. That's a rather interesting point of view.

5. The Nature of Time

There is a rule in plane geometry about triangles. It states that the sum of all three angles will always equal 180 degrees. That's true of any triangle.

Suppose some surveyors took a transit to a large field and laid out a very large triangle. Then, they carefully measured all three angles and added them together. What if the sum was more than 180 degrees? What could explain that measurement? The answer lies with the curvature of the earth.

The rule about angles adding up to 180 degrees is only true in a universe of two dimensions. That's why the word *plane* is used for plane geometry or plane trigonometry. A violation of that rule is a hint that maybe an additional dimension has come into play.

A course of study in navigation will include a class in spherical trigonometry where there will be 90 degrees in each of the corners. It's very different than plane geometry. If a triangle has more than 180 degrees in the sum of the angles, the surface is a convex shape. If it's less than 180 degrees, the shape is likely a hyperbolic paraboloid.

This was the kind of insight that led Einstein to his revolutionary theory of special relativity in 1905. He discovered that length, mass, velocity and time are relative to the velocity of the observers. He generalized that theory in 1915 to what we call the general theory of relativity, in which there is no distinction between time and space.

Einstein realized that space is a four-dimensional environment, not three as we visualized it. Time is just another dimension to our spatial environment. This four-dimensional continuum has been confirmed in at least fourteen different ways, to nineteen decimal points. It's a very useful, predictive technology that's available to us today.

Gravitational Time Dilation

To understand the implications involved, it will help to understand *gravitational time dilation*. There are identical atomic clocks that are located at the National Institute of Standards and Technology in Boulder, Colorado, and at the Royal

Observatory in Greenwich, England. These are complex devices. They are incredibly precise clocks, and both are accurate to better than one second in a million years.[21]

Their precision is based on the natural resonance of the cesium atom. This is critically important because the ability to measure time accurately determines the exactness of your navigation. One version of these clocks makes the global positioning satellite system (GPS) work.

Knowing all this, scientists were faced with an interesting problem after the clocks had been calibrated, synchronized, and allowed to run. The clock at Boulder National Institute of Science and Technology clicks five microseconds per year faster than the identical clock at Greenwich.

Their accuracy is unquestioned and yet, the one at Boulder is five microseconds a year faster than the one at Greenwich. Which one is correct? Both are correct. Time at Boulder is actually different than time at Greenwich.

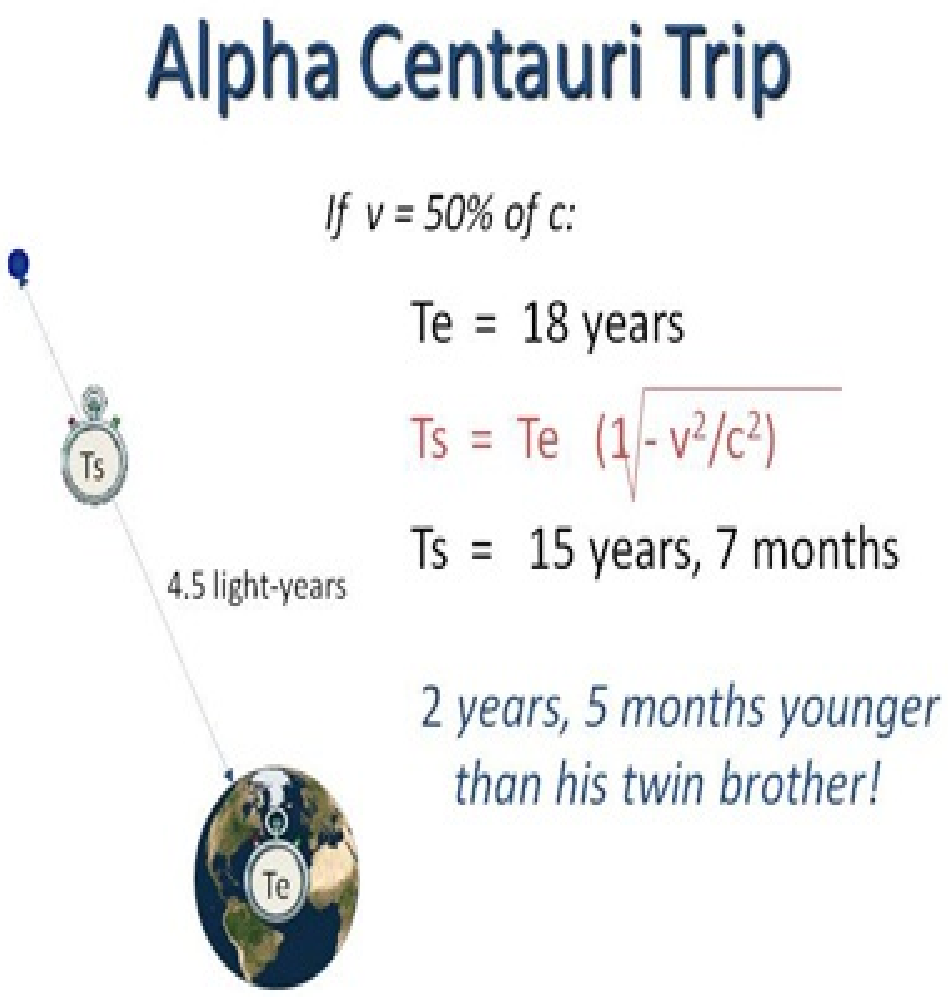
It is because of the difference of gravity in the two locations that time itself is slightly different. At Boulder, the clock is at 5,400 feet above sea level; at Greenwich, it's 80 feet above sea level. An atomic clock raised up one meter will speed up by one part in 10 to the sixteenth, or 10^{16}. That's not enough to affect a personal schedule, but it is predictable and measurable. Time changes with gravity.

There is another example of this phenomenon. Scientists sent two aircraft around the world with cesium clocks in each. The one that went around the world eastward lost 0.059 microseconds. The one that went westward gained 0.273 microseconds. That's not a lot, but it is exactly what Einstein's theory of relativity predicted, in view of all the factors involved.

In a physics class, or a physics textbook on this subject, there almost always will be a reference to twin astronauts, hypothetical of course. One is sent to Alpha Centauri, the nearest star to us, and the other one stays here. (Alpha Centauri is four and one-half light years away.) He travels at half the speed of light. Using earth years for that time, it will take nine years to get there, and nine years to get back.

Here on earth, eighteen years went by for his round trip. What about the clock on

his spacecraft? If we take the Lorentz transformation, which deals with this issue, his clock will only record fifteen years and seven months. In other words, he will return back to the earth two years and five months younger than his twin brother. That is a bit disturbing, even weird.



This demonstrates that time is a physical property that varies with certain factors. To dramatize this further, imagine sending this astronaut almost at the speed of light, 99.99%. There are a lot of reasons preventing travel at that speed, but just follow the math. At that speed, the round trip would take about nine

earth years, but on his clock it would only be thirty-three days.

Time is not uniform; time is a physical property. Understanding this will resolve many paradoxes that we discover in the Bible and elsewhere. Time varies with mass, acceleration, and gravity, among other things. Time is a physical property that varies.

We exist in more than three dimensions. We exist in four, and some may even say ten dimensions. Earlier, we went over the different hyperspaces that have evolved in the world of physics, ending with the ten-dimensional concepts that are prevalent today.

Time and Decay

The Bible describes a universe that was good in the first two chapters of Genesis. But, in Genesis 3, a curse was placed on the earth as a result of Adam's sin,[22] and the universe was drastically altered. We believe that it was fractured in a way that left four physical dimensions available to us, and the remaining six might be called, for lack of a better term, the "spiritual universe."

One of those four physical dimensions is time. A timeline helps to illustrate how time operates. We can move forward on the timeline and look back. But, we can't move back in time, and we can't look forward in time (i.e. see the future). We can only move forward and look back in time.

The events of Genesis 3 seem to have impacted thermodynamics. The second law of thermodynamics involves decay. In this discussion, our focus is on the bondage of decay that began with the curse.

To describe this, we can use the measures of information presented earlier. They are disorder versus order, noise versus signal, cacophony versus music, chaos versus cosmos, and randomness versus design. Each pair are opposites, with a state of entropy (randomness, or decay, if you will) mentioned first, and information following.

Since the curse, there is an intrinsic drift from information to entropy that occurs over time. We find a created universe that is highly ordered, yet, it is winding down. We see this when species become extinct, and mountains erode.

Entropy appears in Scripture. It may surprise you to discover that entropy is all

through the Scripture.

> *They shall perish… grow old as a garment.* (Psalm 102: 25-26)
>
> *The earth will grow old like a garment.* (Isaiah 51:6)
>
> *Heaven and earth will pass away*. (Matthew 24:35)

Paul makes an interesting remark. He writes:

> *…the creation itself would also be set free from bondage*[23] *to decay in order to share the glorious freedom of God's children.*
>
> ROMANS 8:21 (ISV)

This phrase in Paul's letter causes those of us who take the Bible seriously to infer that the bondage of decay, the entropy laws, were a result of Genesis 3, not Genesis 1.

Time and Eternity

Let's get back to time. We have used a timeline to represent linear time. An example would be when a teacher uses a line and designates the left-hand side as a point to represent the birth of a famous person, or the founding of an empire. Moving along the line, certain events are noted to represent dates in time. The end of that line would usually be the end of the person or the empire.

Some have used the timeline to represent eternity by drawing an arrow on each end. That makes the line start with infinity on the one end and go to infinity on the other. Because of that model, many people equate eternity with having lots of time. That makes good poetry, but it happens to be bad physics. Time implies mass; time varies with mass. Acceleration and gravity also affect time.

Now, consider the nature of God. Is God subject to the restrictions of mass? Is God subject to acceleration? Is He subject to gravity? God is not simply Somebody with lots of time. He is Somebody outside the dimension, or the plane, of time all together.

Isaiah described God as "the high and lofty One that inhabiteth eternity" (Isaiah 57:15). The Creator is different than His creation, and He uses this difference to authenticate His messages.

If God has the technology to create us in the first place, He has the technology to get His message to us. But, how does He authenticate it? How does He let us know that the message is really from Him, and not some kind of contrivance or fraud? He does it by "declaring the end from the beginning and from ancient times, the things that are not yet done" (Isaiah 46:10). That is just one of many passages that make this point: God is outside the dimension of time. He alone is able to tell us the end of something, the future. That's His personal imprint for authenticating His message. We will come back to that point in the next chapter.

The illustration using Mr. and Mrs. Flat showed how a three-dimensional person could approach a two-dimensional universe and have a proximity to either of them that's independent of their distance. Just as proximity could be different in different dimensions, time could exist in one dimension, but not in the other.

Consider the geometry of eternity. Imagine a timeline on a blackboard, and imagine pulling it out from the black board. Visualize this timeline now coming out from the screen, and then make a point in that line and call it the present. Behind that point is the past, and ahead is the future. Someone who is outside of the dimensionality of that timeline could be said to be inhabiting eternity. That person in eternity can see the past, the present, and the future simultaneously. That's a clumsy illustration of God's perspective of time.

For another analogy, picture some people in Southern California watching the Rose Parade. They are sitting on the curb and, for several hours, they watch floats and marching bands, horses and performers pass in front of them. As they sit on that curb, the parade is a sequence of events coming one after another.

Now picture someone who is not in that plane of existence. Put them in a helicopter above the parade. Their perspective is very different. They can look down and see the staging area where the floats are being organized, the parade route, and the place where the parade is being disbanded. Someone who is not on the plane of the parade's existence can simultaneously see the beginning and the end.

That's a poor example in some respects, but it helps illustrate what is being suggested here. God is outside of the dimensionality of time, so eternity is more than having lots of time. Eternity is being outside the boundaries of our reality.

My favorite quote of Albert Einstein is when he said, "People like us, who

believe in physics, know that the distinction between the past, the present, and the future is only a stubbornly persistent illusion.”

6. Was It By Chance?

Here's a little epistemological IQ test. It comes from a personal experience. I had a very strange thing occur in my workshop at home. I had a whole bunch of black and white beads that spilled on the floor. That was a little frustrating. I didn't want it to happen again, so as I picked them up, I decided to put them on a piece of string. I picked them up off the floor randomly, put all 347 of them on the string, and tied a knot so they wouldn't spill again. As I looked at what I had done, I was rather startled.

As I looked at the beads, there were two beads the same color, separated by one. As a ham radio operator, I recognized the code right away. That makes two *dots* in Morse code, and stands for the letter *i*. Next, there was a dash and a dot; an *n* in Morse code. That's curious. I went on, and saw a dash, just a dash by itself. That is a *t*. Four dots after that make an *h*.

I started to go down the whole string and found *e*, *g*, and *o*. I began to form words. It turned out that on this string, by just random chance, there was a sentence. It's the first verse in the Bible, "In the beginning, God created the heavens and the earth."



It startled me to think this all happened by accident. As I was picking up these beads off the floor, I got this perfect sentence all by random chance.

What I'm describing is just a story, and it's absurd—but also very useful. Even without doing the math, anyone reading that story about a little string of events occurring by random chance knows it's ridiculous.

Here's the math. There are 347 beads with an alphabet of only two: black and white. This is a simple equation in information theory. The probability of any particular sequence would be 2^{-347}. That's equivalent to 2.8669 times 10 with 104 zeros after it, or 2.8669 x 10^{-104}. That is a very large number, and means the probability is very, very small that this could actually happen.

Borel's Law

In physics, a variable that approaches but never reaches some other variable is called *asymptotic*. Even though a number may go on forever, there's a point at which it becomes unreasonable to continue a calculation, or operation. Physicists have adopted what's called Borel's Law. It states that any probability less than 10 with 50 zeros after it (10^{-50}) is defined as absurd.

The story with the beads wasn't 10^{-50}; it was 10^{-104}. That really was absurd. Yet, it's interesting that we let our kids go to school where they're taught that the hemoglobin molecule in our blood just happens to be made of amino acids. It happens that out of 574 of these amino acids drawn from an alphabet of 20, the equation turns out to be a vastly more complex calculation than an alphabet of two. If you go through that math, it is 574 for an alphabet of 20, or 10^{-650}. That is absurdly, absurdly long.

Only one of that vast number of possible combinations can be hemoglobin. Without the right order, whatever is produced will result in hemoglobinopathy, and that's fatal. Obviously, the idea that hemoglobin happened by chance is even more absurd than the bead story. This demonstrates the impossibility of that chance.

These numbers are very, very big. There are only 10^{18} seconds in the entire history of the universe, and that's if you accept the age for the universe as 16 billion years. How many atoms are there in our galaxy? Only 10^{66} atoms exist. There are only 10^{80} particles in our galaxy.

A probability of less than 10^{-50} defines absurd. The specificity of hemoglobin goes far beyond any conceptual possibility of it happening by some random process.

A random process can't even produce symmetry, let alone design. Take a random number table and produce symmetry from it. This is equivalent to winning the state lottery, not just once, not twice, not even three days in row. The math says it is as unlikely as the previous one squared. Forming hemoglobin by chance is equivalent to winning the lottery every day for 90 days in a row. That is really unlikely.

The genetic code is even more complex because it is a three-out-of-four, error-correcting digital code. Anyone who thinks that they could design a computer where you have one group designing a language and the other group designing

the hardware, and they never talked to each other, is out of their minds. It takes incredible skill, coordination, and deliberate design to create such a thing.

We have in the genes a code that is exceptionally sophisticated. It's self-replicating without error. It is error-correcting into the three-out-of-four alphabet, and that includes punctuation. All of life is defined in our DNA.

The Death of Darwinism

There is a basic equation that our kids are taught in school. It states that combining matter, energy, and random processes will occasionally produce life. It won't happen very often, but occasionally.

This equation can be tested very simply at home. Take an unopened jar of peanut butter. It's an open thermodynamic system, which means that it can get warm and cold because energy can enter and leave. This gives the null hypothesis[24] an advantage because this is organic material: peanuts.

Based on the theory, there should "occasionally" be some production of life in a jar of peanut butter. Open the jar and break the seal to see if there is any new life. The only way there can be new life is to have a spore of some kind introduced: some information added. No one has found life in a jar of peanut butter unless something was added—and aren't you glad?

Consumers conduct over a billion experiments a year like this, and they have been doing it for more than a hundred years. No one has ever produced new life under these conditions. In fact, the entire food industry depends on the fact that matter plus energy plus randomness (entropy) does not produce life. However, this theory is taught in schools as *biogenesis*, and it is the perpetration of a fraud.

This silly, but convincing, little example can serve as a reminder every time a jar of baby food or a jar of peanut butter is opened. Remember that biogenesis, as taught in the schools, is a fraud.

For thirty years, in corporate board rooms, I served as a director of a dozen different public companies, and was chairman and CEO for six of those. Over those thirty years, we were subject to laws that the Securities and Exchange Commission enforced. They would punish us severely for making a misstatement in any of our documents for investors. If the same laws that applied to us in the corporate world were applied to the publishers of school textbooks,

most of them would be in jail because their books are littered with deliberate, knowing frauds.

The basic question is, “Which came first, the DNA or the proteins?” It takes protein to make DNA, but the DNA is made up of robots that make the proteins. The proteins become 200,000 different kinds of robots that make up the city, which we call a cell. They both had to be created at the same time and with a consistent architecture for the entire system. That emphatically implies design.

Darwinians cannot explain the origin of life because they cannot explain the origin of information required for such complex systems as DNA. This information is imperative for life to exist.

7. What Does Prophecy Prove?

The world has in its possession a collection of sixty-six books that we glibly call the Bible. It is sixty-six separate books, penned by over forty authors, over several thousand years.

There are two strategic discoveries every one of us needs to make about this book. The first discovery reveals this as an integrated message. It's not simply a theme where the Old Testament is fulfilled in the New Testament; it's much more than that. Every detail is deliberately designed in anticipation of what follows. Each of us needs to discover that for ourselves.

That leads to the second discovery; one that's even more startling. We can prove that the origin of that message had to come from outside the time domain. It's provable simply because it accurately describes, with astonishing precision, history before it happens. That is a hallmark of this book, as well as its authentication.

Every number, every place-name is positioned there deliberately. Jesus gave a hint of that when He said:

> *Think not that I am come to destroy the law, or the prophets: I am not come to destroy, but to fulfil. For verily I say unto you, Till heaven and earth pass, one jot or one tittle shall in no wise pass from the law, till all be fulfilled.*
>
> MATTHEW 5:17-18

Jot and *tittle* are Hebraisms. A *jot* is one of the twenty-two Hebrew letters; one that might be mistaken for an apostrophe. The *tittle* is a little decorative hook on some of the letters. It's like saying, "Not the crossing of a *t* or dotting of an *i* will pass until all the law is fulfilled." It's a call to take it very seriously.

Measuring Our Confidence

With that in mind, consider the Bible's description of prophecy, or history before it happens. By at least one catalog, there are over 8,000 predictive verses, with almost 2,000 different predictions, on over 700 different matters. That's from J. Barton Payne's *Encyclopedia of Biblical Prophecy*.[25]

If that's true, can we measure how confident a person can be about the Bible?

Peter wrote in his second letter:

> *We have not followed cunningly devised fables when we made known unto you the power and coming of our Lord Jesus Christ but were eyewitnesses of His majesty.*
>
> 2 PETER 1:16

He is of course alluding to Matthew 17, the Transfiguration.

A few verses later, he said something startling. He said:

> *We have also a more sure word of prophecy whereunto ye do well that ye take heed, as unto a light that shineth in a dark place, until the day dawn, and the day star arise in your hearts*
>
> 2PETER 1:19

What on earth did he mean? He was an eyewitness, and yet he says, "We have even something better. We have the more sure word of prophecy." What is he talking about?

William Thomson, known as Lord Kelvin, made an interesting remark. He said, "Until we can measure a thing, we really know very little about it." That's what drives many scientists to really measure things, to really make sure we understand them. Are there measurements that would increase our confidence in the authenticity of the Bible?

The following discussion is anchored on one manuscript fact. The Hebrew Scriptures, which we call the Old Testament, were translated into Greek by 270 B.C. It's called the Septuagint Version, and you have access to a copy through almost any bookstore. The point here is that these prophecies are all documented by the Septuagint hundreds of years before their fulfillment. They could not have been created or altered after-the-fact, in order to make a better match between the prophecy and its fulfillment.

These Hebrew Scriptures contain over 300 prophecies that detail the coming Jewish Messiah. Here are a few of these Old Testament prophecies.

1. He would be of David's family (2 Samuel 7:12-16; Psalm 89:3-4; 110:1; 132:11).
2. He would be born of a virgin (Isaiah 7:14).
3. He would be born in Bethlehem (Micah 5:2).
4. They will sojourn in Egypt (Hosea 11:1).
5. He would live in Galilee (Isaiah 9:1-2; 11:1).

6. He'd be announced by an Elijah-like herald (Isaiah 40:3-5; Malachi 3:1; 4:5).
7. This would occasion the massacre of Bethlehem's children (Genesis 35:19-20; Jeremiah 31:15).
8. His mission would include the Gentiles (Isaiah 42:1-4).
9. His ministry would be one of healing (Isaiah 53:4-5).
10. He would teach through parables (Isaiah 6:9-10; Psalm 78:2).
11. He would be disbelieved and rejected by the rulers (Psalm 69:4; 118:22; Isaiah 6:10; 29:13; 53:1).
12. He would make a triumphal entry into Jerusalem (Zechariah 9:9; Psalm 118:26).
13. He would be betrayed by a friend for 30 pieces of silver (Zechariah 11:1-13; Psalm 41:9).
14. He would be like a smitten shepherd (Zechariah 13:7).
15. He would be given vinegar and gall (Psalm 69:21).
16. They would cast lots for His garments (Psalm 22:18).
17. His side would be pierced (Zechariah 12:10; Psalm 22:16).
18. Not a bone would be broken (Exodus 12:46; Numbers 9:12; Psalm 34:20).
19. He would die among malefactors (Isaiah 53:9, 12).
20. His dying words were foretold (Psalm 22:1; 31:5).
21. He'd be buried by a rich man (Isaiah 53:9).
22. He would rise from the dead on the third day (Genesis 22:4; Psalm 16:10-11; Jonah 1:17; Hosea 6:2).
23. His resurrection would be followed by the destruction of Jerusalem (Daniel 9:26; 11:31).

This is just a sampling of a list of over 300. We will examine only eight of the simplest prophecies, and come to some conclusions about them.

Eight Messianic Prophecies

First, let's take the one that's popular on Christmas cards.

> *But thou, Bethlehem Ephratah, though thou be little among the thousands of Judah, yet out of thee shall he come forth unto me that is to be ruler in Israel; whose goings forth have been from of old, from everlasting.*
>
> MICAH 5:2

There are a number of gems tucked away in this one verse, but we're going to extract just one fact. Where was the Messiah to be born? Obviously, it was in

Bethlehem.

Question: what is the probability of any person fulfilling this prophecy? They must be taken at random, over the last few thousand years. If the population of Bethlehem is less than 10,000 during that period of time, and if there's an average of a billion people on the planet earth, then we can divide that out to about one chance in 100, 000, or less, that a person that you pick at random would have been born in Bethlehem. It's probably much rarer than that, but that generous figure will serve the purpose.

Let's take another one.

> *Rejoice greatly, O daughter of Zion; shout, O daughter of Jerusalem: behold, thy King cometh unto thee: He is just, and having salvation; lowly, and riding upon an ass, and upon a colt the foal of an ass.*
>
> ZECHARIAH 9:9

Obviously, Jesus Christ went out of His way to fulfill this very specific one, but how many people in the last several thousand years have presented themselves to Jerusalem as a king riding a donkey? We could safely say less than one in a hundred, and that's being generous.

Here is another one.

> *And I said unto them, If ye think good, give me my price; and if not, forbear. So they weighed for my price thirty pieces of silver.*
>
> ZECHARIAH 11:12

How many people have been betrayed for precisely thirty pieces of silver? Let's say the probability of someone being betrayed for that specific price is less than one in 1,000.

Number four:

> *And the Lord said unto me, Cast it unto the potter: a goodly price that I was prised at of them. And I took the thirty pieces of silver, and cast them to the potter in the house of the Lord*
>
> ZECHARIAH 11:13

This particular one may require a little more familiarity with the New Testament. You may recall that in the Gospel of Matthew, after Judas betrayed Christ:

> *When he [Judas] saw that he was condemned, repented himself, and brought again the thirty*

> *pieces of silver to the chief priests and elders*
>
> *Saying, "I have sinned in that I have betrayed the innocent blood." And they said, "What's that to us? See thou to that."*
>
> *And he cast down the pieces of silver in the temple and departed, and went out and hanged himself.*
>
> *And the chief priests took the silver pieces, and said, "It is not lawful for to put them into the treasury because it is the price of blood."*
>
> *And they took counsel and bought with them the potter's field, to bury strangers in.*
>
> *Wherefore, that field is called the field of blood to this day.*
>
> MATTHEW 27:3-8

Understand that the Temple had the obligation to pay for burial when someone died in the precincts and there was no one to take the body. They couldn't put the money in the treasury, but they could prepay anticipated expenses. So they bought a field that would be a cheap place to acquit themselves of this burial obligation.

Notice the particulars here:

— The price was thirty pieces of silver;
— The location of the transaction was in the house of the Lord, the Temple;
— The potter, the owner of that field, gets the money.

It's interesting those conditions all come from Zechariah's prophecy. The probability of this happening as a random occurrence is likely to be less than one in 100,000.

There's another prophecy in Zechariah that is personally touching to me. It says:

> *One shall say unto him, "What are these wounds in thine hands?" then he shall answer, "Those with which I was wounded in the house of my friends."*
>
> ZECHARIAH 13:6

When I first encountered this, I was a teenager, and I was on a memory kick. So, when I came across this prophecy, I typed up a little card and put the verse on one side and the reference on the other, to try and learn it. I always carried a few of these as I added to my repertoire.

As I tried to memorize this, I got more confused because I recognized it looked like prophecy at first, but it didn't make sense. I could not visualize Jesus with the Roman soldiers driving spikes through His wrists as saying this was "in the house of my friends." That just didn't compute.

I was reading the Gospel of John once, and it said:

> *But Thomas, one of the twelve, called Didymus, was not with them when Jesus came.*
>
> *The other disciples therefore said unto him, We have seen the Lord. But he said unto them, Except I shall see in his hands the print of the nails, and put my finger into the print of the nails, and thrust my hand into his side, I will not believe.*
>
> *And after eight days again his disciples were within, and Thomas with them: then came Jesus, the doors being shut, and stood in the midst, and said, Peace be unto you.*
>
> *Then saith he to Thomas, Reach hither thy finger, and behold my hands; and reach hither thy hand, and thrust it into my side: and be not faithless, but believing.*
>
> *And Thomas answered and said unto him, My Lord and my God.*
>
> *Jesus saith unto him, Thomas, because thou hast seen me, thou hast believed: blessed are they that have not seen, and yet have believed.*
>
> JOHN 20:25-29

I realized it wasn't the nails that wounded Christ, it was Thomas' unbelief.

Getting back to Zechariah 13:6, how many people, taken at random, have been wounded in their hands in the house of their friends, in whatever context? Let's say less than one in a thousand, to be generous.

Take another one:

> *He was oppressed, and he was afflicted, yet he opened not his mouth: he is brought as a lamb to the slaughter, and as a sheep before her shearers is dumb, so he openeth not his mouth.*
>
> ISAIAH 53:7

This is a chapter that details the crucifixion, even though it was written as a pillar passage in the Old Testament. How many prisoners accused of a capital crime, a death penalty situation, make no defense even though they're innocent? Out of all the prisoners, less than one in a thousand would be a generous number.

Another one:

> *He made his grave with the wicked, and with the rich in his death; because he had done no violence, neither was any deceit in his mouth.*
>
> ISAIAH 53:9

How many died among the wicked, yet were buried with the rich? We will assign this less than one in a thousand.

Here's the last one. Psalm 22 reads as if it was dictated, first person singular, as He hung on the cross, even though it was written 700 years earlier.

> *For dogs have compassed me: the assembly of the wicked have inclosed me: they pierced my hands and my feet*
>
> PSALM 22:16

This is remarkable because it was written hundreds of years before crucifixion was even invented. The official form of capital punishment in Israel, at that time, was stoning. Here, the Messiah is to be crucified, not stoned. (Crucifixion was invented by the Persians, and widely adopted by the Romans.)

How many people, taken at random in the last 2,000 years, have died by having their hands and feet pierced? There were many thousands of course, but can we say less than one in 10,000 of the entire population?

With that last one, we have now established the probability for eight prophecies. Here's a list of them:

1. Born in Bethlehem – 1:100,000
2. King on a donkey – 1:100
3. 30 pieces of silver – 1:1,000
4. Transaction of the temple to the potter – 1:100,000
5. Wounds in His hands – 1:1,000
6. No defense, though innocent – 1:1,000
7. Died with the wicked, grave with the rich – 1:1,000
8. Crucified – 1:10,000

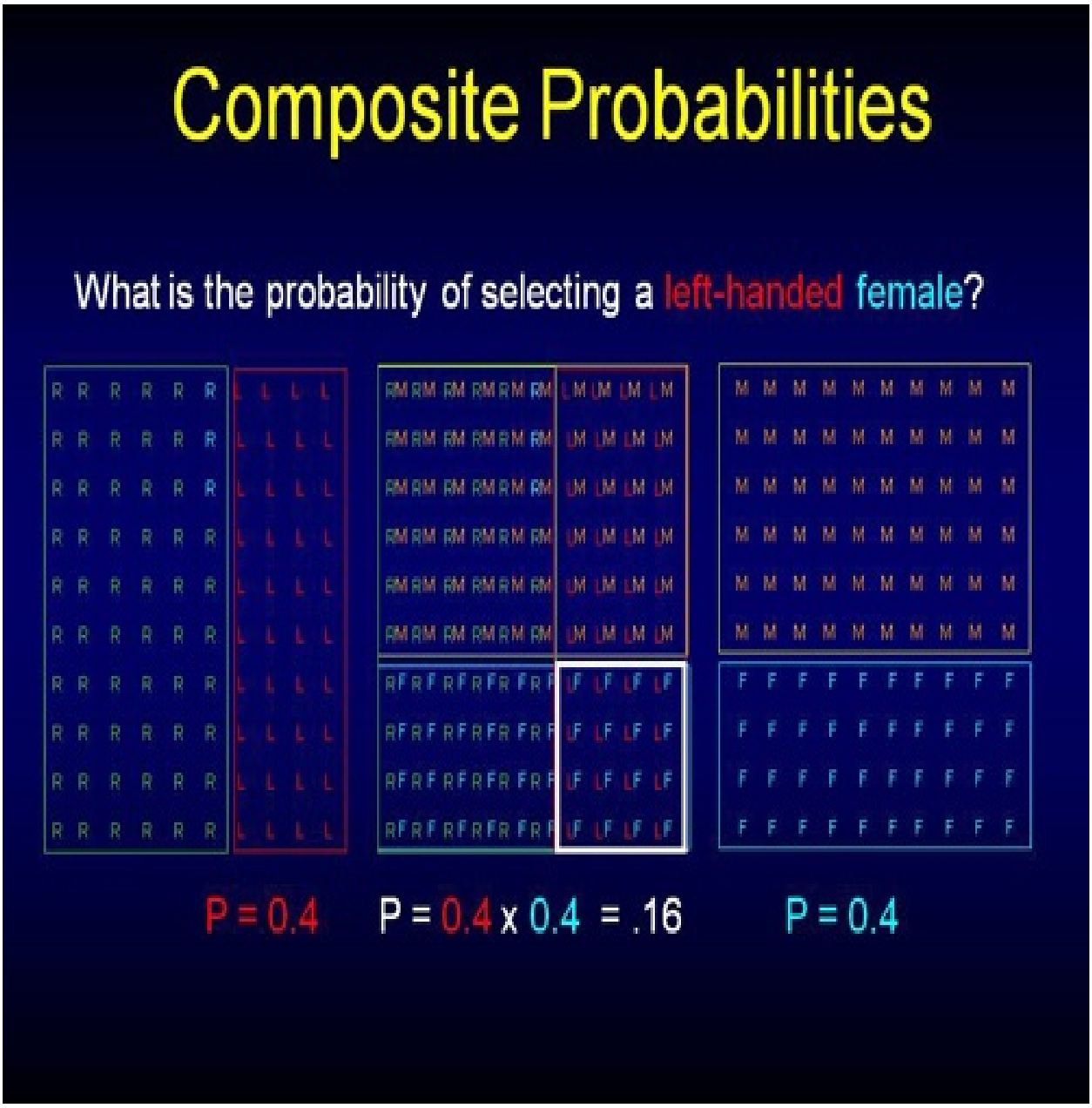
The probability for each prophecy is entered beside each one. The next issue is to determine the probability that a particular person fulfilled all eight of these prophecies. That will involve *composite probabilities*, and for that, we need a little tutorial background.

Composite Probabilities Applied

Assume there are 100 people; 60% of them are male and 40% are female. What is the probability that if one is picked at random, it would be a female? Well, the answer to that is pretty straightforward. It's 40%. If there are forty out of a hundred people who are female, the random chance of picking this female would be a probability of 0.4, or 40%.

Here is a different example. If the population is 60% right-handed and 40% left-handed, what's the probability that a left-handed person would be chosen at random? (Assume that those properties are randomly distributed among the group.) The answer is 40%, again.

Using those two examples, what's the probability of selecting a left-handed female?



To solve this requires combining the distribution, or percentage, found for each group: left-handed and female. The probability for females was 0.4, and the probability for left-handedness was also 0.4. Simply multiply the distributions to get the probability. Doing the math, the solution is 16%, or a probability of 0.16 of randomly choosing a left-handed female from our crowd.

The same process, multiplication, is used to find the probability of one person fulfilling the eight prophecies in our list. The numbers are conveniently in powers of 10, making it very simple to multiply them by counting the zeros.

Take 10 times 100 and get 1,000. Just count the zeros in 10 and 100, then put that many zeros (there are three) in the answer (1,000).

Here are the prophecies again, with their probabilities.

1. Born in Bethlehem – 1:100,000
2. King on a donkey – 1:100
3. 30 pieces of silver – 1:1,000
4. Transaction of the temple to the potter – 1:100,000
5. Wounds in His hands – 1:1,000
6. No defense, though innocent – 1:1,000
7. Died with the wicked, grave with the rich – 1:1,000
8. Crucified – 1:10,000

The probability of one person fulfilling these eight prophecies is 10 with 28 zeros after. That has to be divided by the total population involved. A good estimate is about 10^{11} people for the total population. So, we have 10^{28} divided by 10^{11}, equaling 10^{17}. That's a very large number.

It can be hard to picture what this really means, so start by visualizing what one chance in a hundred would look like. Take a large bucket, and put 100 silver dollars in it. Next, mark one of the silver dollars and shake up the bucket so that the marked coin has an equal chance of being anywhere in the bucket. Blindfold someone and have them reach in and pick one silver dollar. The chance of that person picking up the marked silver dollar is one chance in a hundred. That's what it means to say there is a probability of one in a hundred.

Instead of a hundred silver dollars, we have 10^{17} silver dollars. A bucket is too small to hold 10^{17} silver dollars. This will take the entire state of Texas. If 10^{17} silver dollars are poured in, the entire state would be about two feet deep in silver dollars.

Just like before, one person must be blindfolded, and then they must be allowed to walk as far and as long as they like. This creates an equal chance of getting any particular silver dollar. What's the chance of walking for days, reaching down while blindfolded, and picking up the silver dollar that was marked? That person has one chance in $10^{17}$of succeeding. Now you have a picture for such a large number.

This example with prophecies only took eight out of a possible 300. Let's take another eight, but to save time, just stipulate that the next eight prophecies are no less likely than the first eight. In reality, that's a fiction because the next eight will be more precise, and more rare, but we will ignore that.

Take the total for the first set of prophecies, which was 10^{28} (there were twenty-eight zeros), times the second set, which is also 10^{28}, and the product equals 10^{56}. Next, divide by 10^{11}, like last time, and get 10^{45}.

Even the state of Texas is too small for that amount of silver dollars. This time, we need to build a ball of silver dollars that is thirty times the distance from the earth to the sun. That's a ball, not a line, and it's not just one trip to the sun, but the size of thirty trips. That would take 10^{45} silver dollars. This illustration shows how absurdly huge these probabilities have come so far.

Taking one more, we will triple it from sixteen to forty-eight prophecies. Again, assume no decrease in likelihoods, and multiply 10^{28} six times. That comes to 10^{168} (the easy way is to simply add twenty-eight six times.) Divide that by 10^{11} again, and the result is 10^{157}.

To demonstrate a probability of 10^{157} silver dollars is challenging because the number is so large. So use an atom instead of a silver dollar, and make a ball of atoms instead of a bucket of coins.

A ball of atoms using every atom in the universe would have 10^{66} atoms. That's a long way from 10^{157} atoms. Suppose that each atom from that ball could be used to create a new ball of the same size. That's 10^{66} times 10^{66}, or 10^{132} atoms. That is still a long way from 10^{157}.

Repeat this whole exercise every second since the universe began, assuming a 16-billion-year lifetime. That will only be 10^{149} atoms; still a long way from 10^{157} atoms. The total is short by 100 million times.

This exercise goes beyond any reasonable threshold of conceptual reach. But, this example only deals with 48 of over 300 prophecies; not even a quarter of the total.[26]

Here's another way to say it. I'm convinced that Jesus Christ was the Messiah of

Israel. I'm more confident in that fact than I am of my name being Chuck Missler, or even the fact of my own existence. It is that certain that Jesus Christ was, and is, the Messiah.

The 69 Weeks Prophecy

There are some amazing prophecies we have skipped, such as the detailed genealogy of Jesus. But, one in particular deserves our attention. It's found in Daniel 9, where Gabriel tells Daniel about certain events five centuries before the fact.

Gabriel told Daniel that from the commandment to restore and re-build Jerusalem, to the Messiah the King would be a particular period of time. This is recorded in the Septuagint, three centuries before Christ was born—300 years before the event. Gabriel told Daniel that it would be 173,880 days from that commandment to the Messiah presenting Himself as King.

It was exactly 173,880 days from the decree of Artaxerxes Longimanus (March fourteenth, 445 B.C.) to the Triumphal Entry of Jesus into Jerusalem on Palm Sunday. That was the only time that Jesus allowed Himself to be presented as the King. He also fulfilled the prophecy in Zechariah 9:9 by riding into Jerusalem on a donkey. We are indebted to Sir Robert Anderson who was knighted, served as head of Scotland Yard, and whose landmark work in 1894 unveiled all of this to us.[27]

Go through the arithmetic of the calendars from 445 BC to 32 AD is 173,740 days (remember there is no year zero). From March 14 to April 6 is twenty-four days, and a correction for leap years yields 116. Notice that Gabriel's announcement was precise to the very day, five centuries before the event. There is just no way, with intellectual integrity, that this can be attributed to random chance or accident. This message came from outside the dimensionality of time, from the Creator Himself.

If God went to such great lengths for Messiah's first coming, what should we expect for the second coming? The return of Christ to rule the planet earth has over 1,800 references in the Old Testament. Seventeen books give prominence to the event in the Old Testament. There are 318 references to this in the New Testament, and they are found in 216 chapters. That means twenty-three of the twenty-seven books give prominence to this event. For every prophecy of Christ's first coming that we've detailed, there are eight of His second coming.

Epistemological Approach

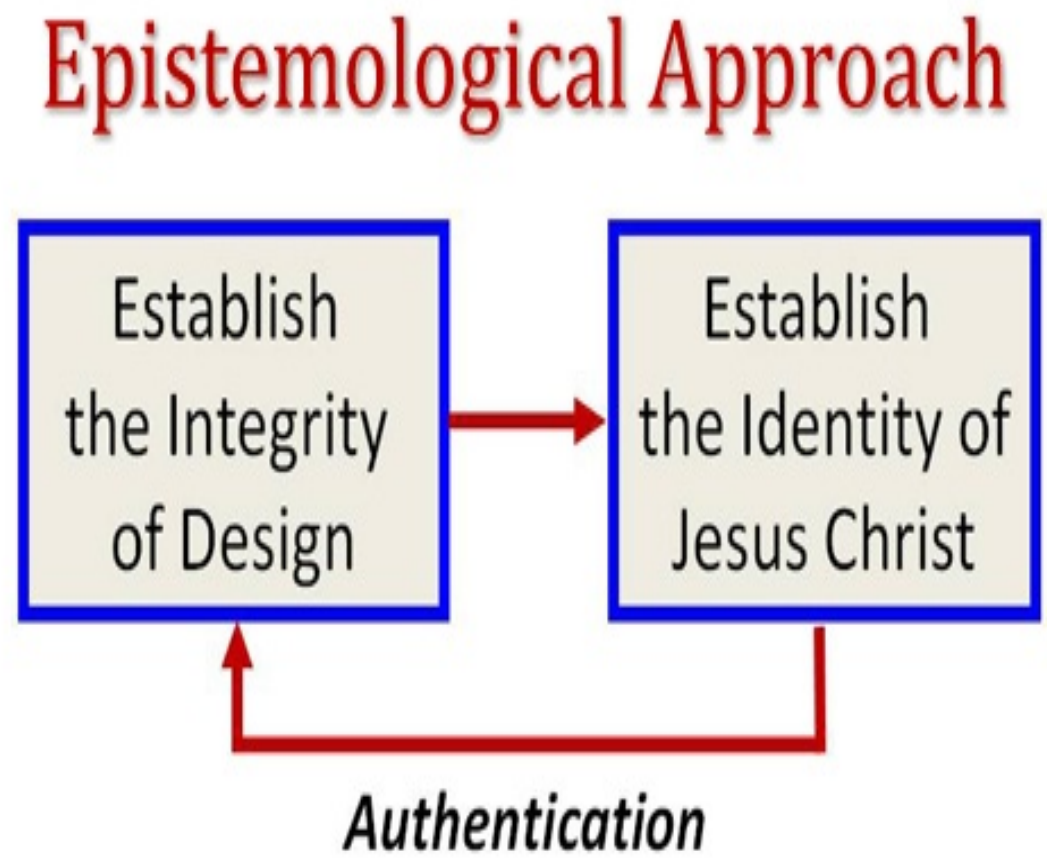
This epistemological approach starts by establishing the integrity of the design of Scripture. You don't have to wade through ancient manuscripts to do that. All you have to do is study the Bible you already have, and discover that there are idioms in the Old Testament that make no sense except to the extent they're fulfilled in the New Testament.

For instance, Moses raised a brazen serpent in the wilderness for everyone to look at and be healed. That makes no sense at all, until you get to the New Testament where Jesus explains it:

> *And as Moses lifted up the serpent in the wilderness, even so must the Son of man be lifted up.*
>
> JOHN 3:14

Abraham is told to offer his son Isaac on a mountain. He knew he was acting out a prophecy, and so "Abraham called the name of that place Jehovahjireh: as it is said *to* this day, In the mount of the LORD it shall be seen" (Genesis 22:14). He apparently realized that another Father would offer His Son on that exact spot two thousand years later.

There is example after example after example of this. The Bible has unexplained events in the Old Testament that make sense and become relevant only when the explanation is given in the New Testament.



Most of us, as Christians, are blind to much of what's there because we haven't done our homework in the Old Testament. The New Testament does not make the Old obsolete; it fulfills it. It's one book; it's an integrated package that requires both parts.

Once you establish the integrity of the book's design, then that will establish the identity of Jesus Christ.

Mel Gibson's movie, *The Passion of the Christ*, was a marvelous piece in many respects, but it has some misleading aspects. It gives you the impression that the crucifixion was a tragedy, but it was not a tragedy, it was an achievement. It was planned before the foundation of the world, and Jesus fulfilled that plan.

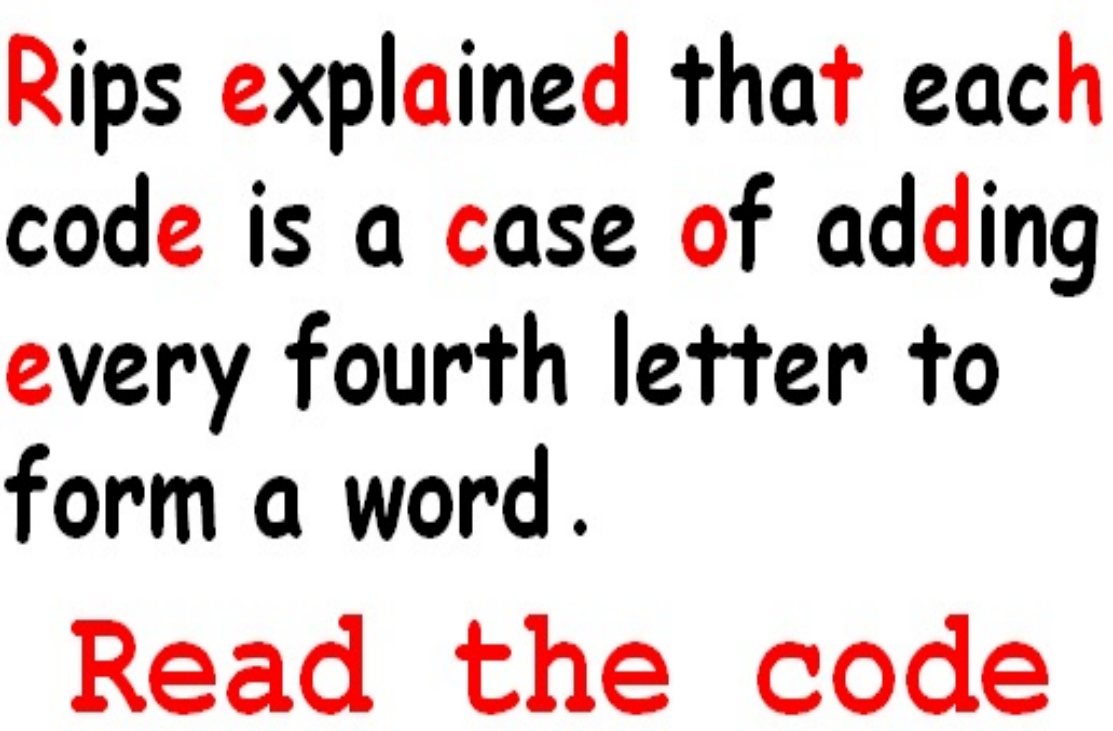
Once the identity of Jesus Christ is established, then the design of the whole package is authenticated. That's the epistemological approach presented here.

8. Even More Authentications

There are additional, even provocative, forms of authentication. For instance, there are hidden codes in the Bible. It says so in Proverbs 25:2, “It is the glory of God to conceal a thing; but the honour of kings is to search out a matter.”

It was Rabbi Moses Cordevaro, in the 16th century, who pointed out that the secrets of the Torah, the Books of Moses, are revealed in the “skipping of equal intervals of letters.” Rabbi Michael Weissmandl’s work in this area is the source, in large measure, for modern inquiries.[28] This particular type of coding has been called the *equidistant letter sequence*.

In the example below, take every fourth letter in the message, and it yields another message that says, “Read the code.” It’s a way of demonstrating how to hide a message inside another message by what’s called an equidistant letter sequence. It’s a very poor form of cryptography, but it’s a very provocative form of authentication.



The five books of Moses are known as the Torah. In Hebrew, Torah is spelled with four letters: the equivalent of T-O-R-H. For an example of equidistant letter sequences, we will start with the book of Genesis, and look for the word *Torah*.

The first Hebrew equivalent to the *T* in Torah is a *tav*, and it appears in the first Hebrew word of Genesis 1:1. Count forty-nine letters and find a *vav*; count forty-nine more letters for a *resh*; continue with forty-nine letters to a *heh*. That happens to spell “Torah.”

Remember, ancient languages flow towards Jerusalem. Nations that are east of Jerusalem go from right to left, and nations that are west of Jerusalem go from left to right. Hebrew goes from right to left.

In the Book of Exodus, the same thing happens: first *tav*, then a *vav*, then a *resh*, and lastly a *heh*. Each letter is found in order, with a distance of exactly forty-nine letters between them. Again, we have *Torah* spelled in the same strange way, but in the Book of Exodus.

It does not happen in the book of Leviticus. That might give a sense of relief.

In Numbers, the word *Torah* emerges again. The same thing happens, but in reverse; it is *Torah* spelled backwards. Deuteronomy is the same as Numbers: *Torah* is spelled backwards. That's puzzling.

Go back to Leviticus for a second time. Are there any significant words here, spelled either forwards or backwards? Well, at intervals of seven (the square root of forty-nine) we have the Hebrew letters for *yod*, *hey*, *vav*, *hey*, which is the unpronounced name of God, YHWH.

Genesis and Exodus spelled *Torah* forwards; in Numbers and Deuteronomy it's spelled backwards. That tells us that the Torah always points to the name of God.

It's reasonable to wonder, "Could this be by chance?" There's no way this was an accident of random statistics. This was deliberate. Was it deliberate in the part of Moses? I doubt it. I believe that it's a fingerprint of the Holy Spirit. It also implies that the Torah was given to Moses letter-by-letter, not just word-by-word.

This is just one example, but there are many of these. For instance, Genesis 38 has a tawdry tale of Judah having a child through his daughter-in-law. In that chapter, at 49-letter intervals, is the name Boaz. With more forty-nine letter intervals, the name Ruth is spelled. The next one is the name Obed. Then, at 49-letter intervals, is the name Jesse, and finally, at 49-letter intervals, David is named. All these are found in the same chapter.

In other words, the names Boaz, Ruth, Obed, Jesse, and David are all tucked into one chapter in Genesis. This is the genealogy of King David, but found in the Books of Moses, long before Joshua, long before Judges, long before Samuel. Not only are they all in forty-nine letter intervals; they are listed in perfect chronological order. The probability of this being an accident of circumstance is absurd.

These are authentication codes. They are a security monitor, watching every single letter of the text. These codes don't rust, or wear out; they have been running continually over the last several thousand years. It's the fingerprint of the Author, and its design can't be impaired by an enemy.

The Heptadic Structure of Scripture

Nearly everyone who has read the Bible has noticed the frequency of the number seven. Seven occurs in over 600 passages; some are overt, some structural, some are even hidden. They're called *heptadic structures*. They are, most likely, another signature of the Holy Spirit.

Here's an exercise to introduce heptadic structuring. Make up an imaginary genealogy using the following rules.

— The number of words used must be evenly divisible by seven.
— The number of letters must also be divisible by exactly seven.

Mathematically, with the first rule there are six chances of losing, one of winning, so it's feasible. With the second rule, there is one chance of winning and 49 minus 1, or 48, of losing. With every new rule, the chance of missing increases.

— The number of vowels and consonants must each be divisible by seven.
— The number of words that begin with a vowel must be divisible by seven.
— Make the number of words that begin with a consonant divisible by seven.
— The number of words used must be divisible by seven.
— Words that occur more than once must be divisible by seven.
— Words that occur in more than one form must be divisible by seven.
— Words that occur in only one form must be divisible by seven.
— The number of nouns should be divisible by seven.
— Only seven words in your genealogy cannot be nouns.
— The number of names shall be divisible by seven.
— The number of male names should be divisible by seven.
— The number of generations must be divisible by seven.

By now, this is probably looking impossible. To replicate this, even from fiction and using a computer, is a challenge.

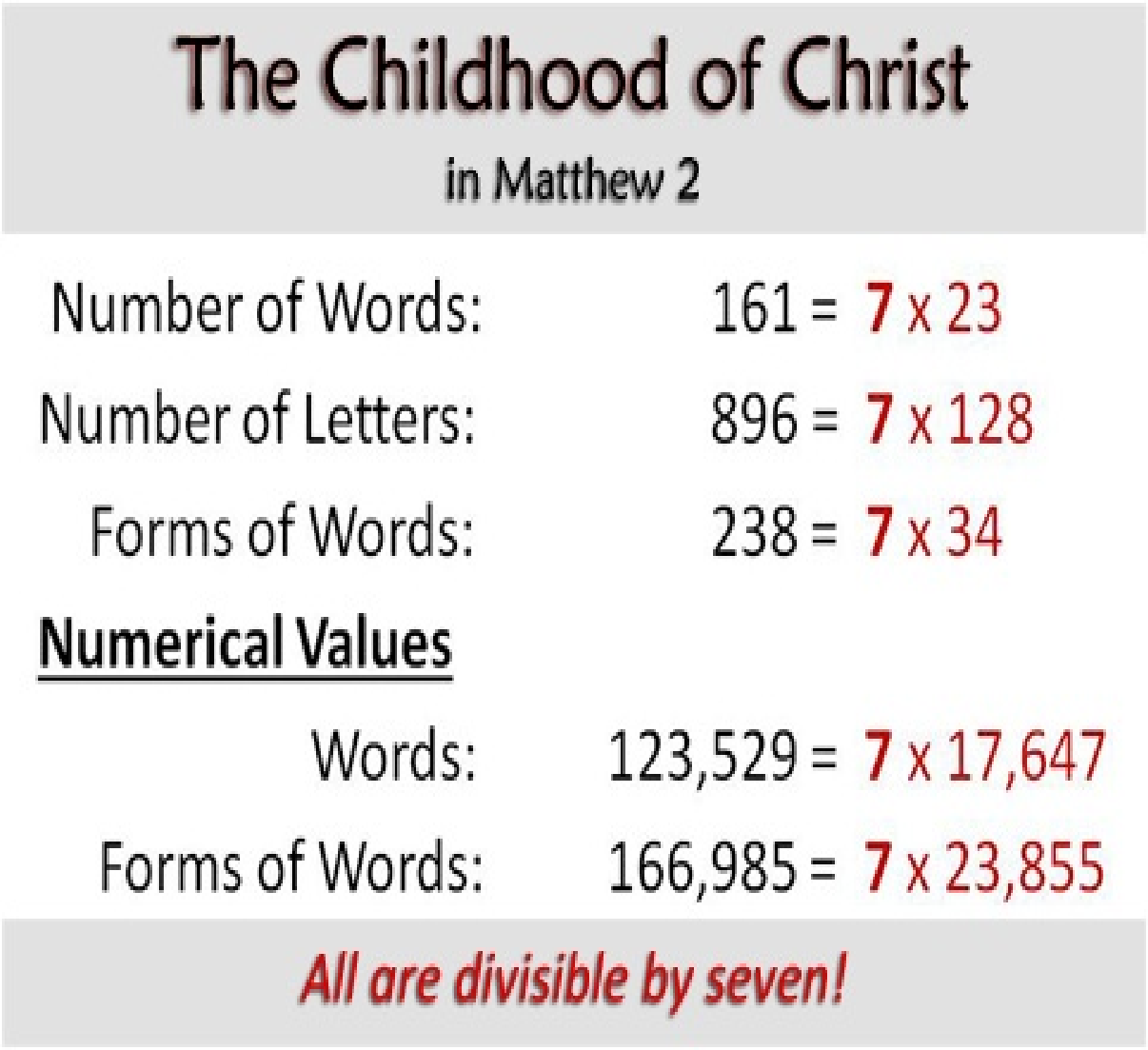
This happens to be a description of the genealogy of Jesus Christ, as found in the first eleven verses of the New Testament. Did Matthew do this deliberately? He was recording a real genealogy, and it's in Greek, not English. In English, it can be manipulated somewhat, but in Greek every verb had to meet five conditions, as well as meet other criteria. New Testament Greek was very precise.

Furthermore, Greek has an alphanumeric alphabet, like Hebrew. Every letter has a numerical value. In fact, the numbers give even more startling facts.

— The remainder of chapter one has 161 words, which is a multiple of seven.
— There are 105 forms of words, as well as 77 words in the vocabulary.
— There are 28 words from an angel; if you add the values, it equals 52,605.
— The angel's words also have 35 forms, and they have a value of 65,429.

The same kind of partitioning and counting continues right through the passage. They're always exactly multiples of seven. This is very difficult to simulate, even if it's done on purpose.

In chapter two, the childhood of Christ is described. Again, this same kind of sevenfold heptadic structure is evident. Below is a chart showing only some of the findings. The deeper scholars get into this structuring, the more astonishing it is.



Along with the structure, we have probability to deal with. In an earlier example of probability there were only two rules at first; for seven times seven there was one chance of forty-nine to get it right. For three rules, there was one chance in 343 of getting it right. For four rules, it's one chance in 2,400. I've given you nine rules. That's less than one chance in 40 million of just happening to make a genealogy that fits all nine rules.

One way to understand the size of this number is to calculate how long it would take to do this. Figure an average of ten minutes per attempt to create this genealogy. This would be like a job, so it would take forty hours per week, fifty weeks per year (two weeks off for vacation.) That's 2,000 hours a year, or

120,000 minutes per year. The probability of one chance in forty million we calculated above means there should be time for forty million attempts, on a random basis. How long would it take to use all attempts? It would take you about 3,362 years.

These are the discoveries of Dr. Ivan Panin, who graduated from Harvard in 1882. He discovered the heptadic structures underlying the Biblical text in 1890. He committed the rest of the fifty years of his life journaling 43,000 pages of discoveries. He went to the Lord in 1942.[29]

Here's a fascinating example of his findings. There's a vocabulary that's absolutely unique to the Gospel of Matthew; these are words that only Matthew uses. There are forty-two of these unique words, which is a multiple of seven. They have 126 letters, and that's a multiple of seven. How could Matthew have done this deliberately?

There is only one of two ways. Either he got the authors of the other New Testament books to agree not to use those words, or he wrote his gospel last to make sure these forty-two words were unique. The former seems very unlikely for a lot of reasons, so the latter makes the best case possible.

That argument can be used to prove that Matthew wrote his gospel last, except the same argument can also be used for the Gospel of Mark because its unique vocabulary is a multiple of seven as well. The words that are unique to Luke are multiples of seven, too. The Gospel of John is the same. So, the argument would be that each one of these authors wrote his gospel account last. Obviously, that cannot be true.

Now add James, Peter, Jude, and Paul to the list. All eight of these writers have vocabularies that are unique to their writings, and that are multiples of seven, exactly. Are these the fingerprints of the Holy Spirit?

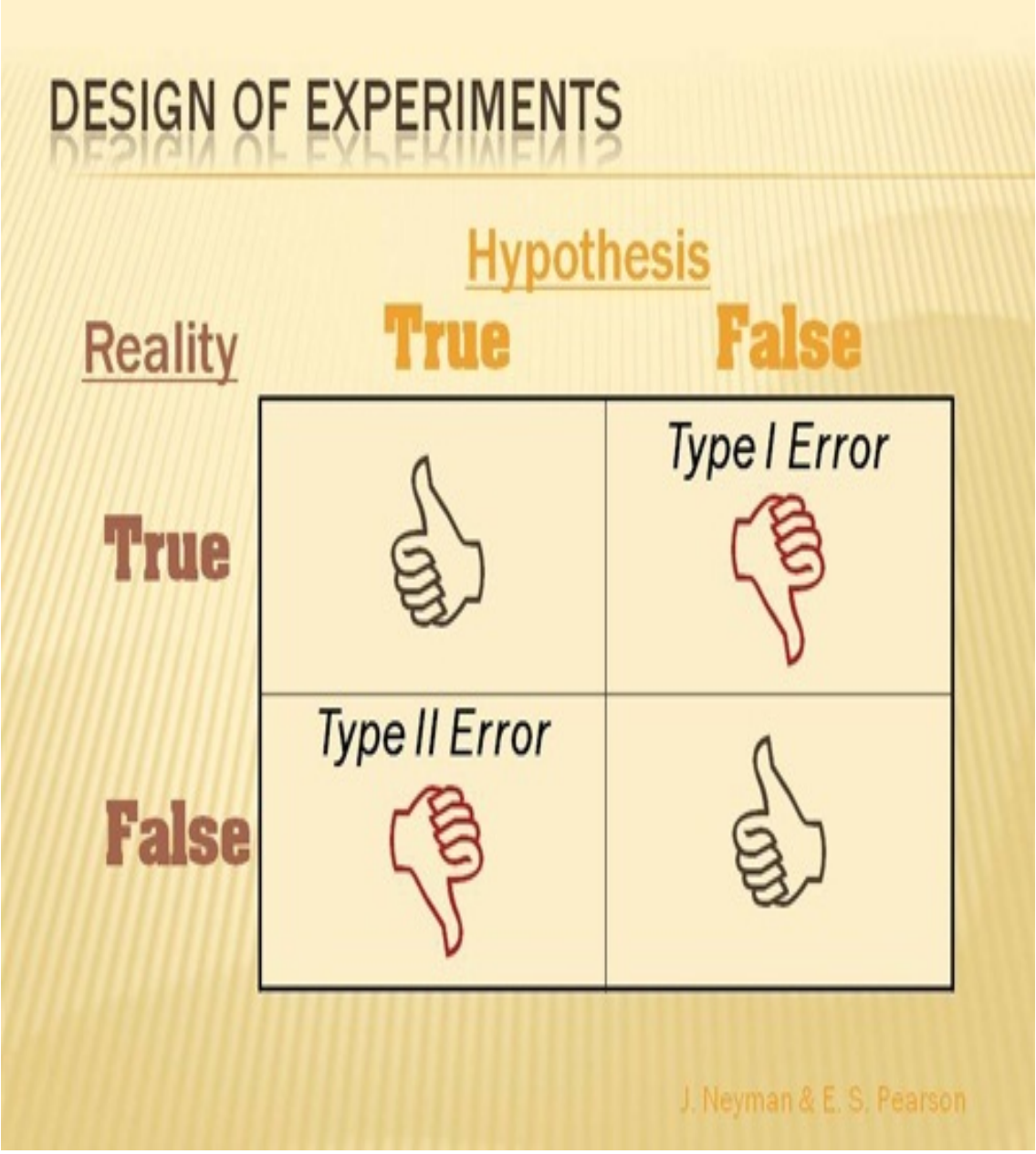
Pascal's Wager

Scientists give a great deal of attention to the design of experiments. They can't control all the variables, and yet, they need to isolate the influencing factors enough to know why a certain result occurs. They have created very powerful, critical tools for that purpose.

Neyman and Pearson[30] are known for their work in this field. In the 1930s they

developed the concept of Type I and Type II errors in experimentation. Their approach allows for a comparison of any hypothesis with reality.

Reality can be tested as true or false, and our hypothesis about something can be one or the other, as well. If our hypothesis says it's true and it is true, that's a win. If our hypothesis says it's false and it is false, that is also a win. We would say, in that case, our experiment was successful, or our decision was correct.



If however, our hypothesis says it's false, but reality shows it is true, that's a

Type 1 Error. If our hypothesis says it's true, but in reality it is false, then there is a *Type 2 Error*.[31]

In other words, if the hypothesis fits reality, if it's correct, that's a win. If the hypothesis is just out of step (you reject a true hypothesis, or you accept a false hypothesis), that's an error in the design of your experiment. This is a mechanism for testing hypotheses in order to determine the reality of a thing.

The problem is, of course, that no experiment is perfect. It would be really great if all experiments had a ninety-nine percent probability of being correct. (Obviously, there's some element of doubt.) If we got within a fraction of 100% of being correct, that would be considered fabulous.

It's worse than that in real life because our experiments are never perfect. That's why we do many different kinds of experiments. There are some cases where a hypothesis has no utility because it has no discriminating ability. That's what a good design for an experiment will avoid.

Pascal talked about a wager, a hypothesis, about God's existence. If God does exist (*i.e.*, the hypothesis is true) and you accept God (*i.e.*, the reality is true), that's fabulous. If God is real, and you reject Him, that is super bad. On the other hand, if God does not exist, but you assume He does, that's still a small win. You would probably have lived a better life, if nothing else. If your hypothesis says God does not exist, and in reality He does not, then that's a zero. You don't get anything by that.

That has been called *Pascal's Wager*. In his classic piece of 1670,[32] he said, "Let us assess the two cases. If you win, you win everything. If you lose, you lose nothing." That's an easy decision. Why not give up "what you cannot keep, to gain that which you cannot lose?"[33] That's really the epistemological problem that's facing each one of us.

9. A Challenge

I'm going to suggest to you a premise that I hope you will challenge. I believe that you and I are being plunged into a period of time about which the Bible says more than it does any other period of time in human history, including the time that Jesus walked the shores of Galilee or climbed the mountains of Judea.

Now, that's a preposterous statement. How do you challenge that statement? You have to do two things. You have to find out what the Bible really says. Find out, yourself, what the Bible really says.

The second thing you need to do is find out what's really going on, and you can't depend on the 10 o'clock news. You need to do a little homework to find out what's really going on in the Middle East, in Europe, in China, in the technologies, in the churches, in the government, and so forth.

In our institute, the Koinonia Institute, we monitor a number of strategic trends.

1. The Struggle for Jerusalem[34]
2. The impending Magog Invasion of the Middle East
3. The rise of Europe as a super state
4. The rise of Asia, especially China
5. The movement towards a global government
6. The movement in religion for an ecumenical religion, to fit everyone
7. Biotechnology and the advent of global pestilence
8. The decline of the United States is a major factor on the world scene
9. Weapons of mass destruction and their proliferation throughout the world

These are just a few. They all have Biblical relevance, and you can research any, or all of them. It's not as if there's one of these that's "most important." They all are converging on the classic Biblical scenario.

To decline to take the Bible seriously can be a result of being unaware of what we know about the very boundaries of our own reality. Would you take a physics course using 1950 textbooks? I don't think so. Would you take a physics course with 1970 textbooks? Hardly. 1990? Probably not.

The Bible has not changed; it doesn't need to change. The more you know about the advancements in science, the more comfortable chapter one of the Book of Genesis reads. If you don't believe that, take a look at our Genesis commentary.

What is Truth? The ultimate Truth is a Person; the Lord Jesus Christ. He was the most anti-religious person that ever walked the face of the earth. This is not about religion. It's about relationship, relationship with the personification of Truth itself.

Finding Truth is the most important discovery of your life. Your eternal destiny depends upon it.



You are invited to undertake a lifelong adventure, exploring the Word of God among an international fellowship without borders — neither intellectual nor geographic.

This is an opportunity to “bloom where you are planted” by studying the Bible — and related topics — in virtual classrooms on the Internet, while discovering the unique calling on your own life and preparing for the challenges which will inevitably emerge on your personal horizon.

To learn more, please visit us at

WWW.KOINONIAINSTITUTE.ORG

Endnotes

Notes

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[←2]

"The Greatest Conspiracy of the Past 2000 Years Is About to Unravel." Dan Brown. Accessed August, 2014. http://www.danbrown.com/the-davinci-code.

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Ireneus wrote in *Doctrines of the Cainites*; "They declare that Judas the traitor was thoroughly acquainted with these things, and that he alone, knowing the truth as no others did, accomplished the mystery of the betrayal; by him all things, both earthly and heavenly, were thus thrown into confusion. They produce a fictitious history of this kind, which they style ‘The Gospel of Judas.’"

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Stretching the Heavens: 2 Samuel 22:10; Job 9:8; Job 26:7; Job 37:18; Psalm 18:19; Psalm 104:2; Psalms 144:5; Isaiah 40:22; Isaiah 42:5; Isaiah 44:24; Isaiah 45:12; Isaiah 48:13; Isaiah 51:13; Jeremiah 10:12; Jeremiah 51:15; Ezekiel 1:22; Zechariah 12:1.

[←12]

The heavens shaken: Hebrews 12:26; Haggai 2:6; Isaiah 13:13

[←13]

An anecdote about constants: I was taken to dinner by a number of my old friends who were upset because I was publishing articles in our news journal by Barry Setterfield. He was arguing that the speed of light is not a constant that it's been slowing down. My well-meaning, Christian, physicist friends said, "Chuck, you're going down the wrong path. Everybody knows that there's nothing more sacred than the constancy of the speed of light. It undergirds most of physics."

I was polite, but deaf to that. Over time, a number of articles have been published in reputable journals declaring that the speed of light is not a constant. None of them had the character, or the integrity, to make reference to Barry Setterfield, who had been saying that for several decades. Nevertheless, they're now waking up to the fact that the constants of the universe are not constant.

[←14]

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A heavy element is an element with an atomic number greater than 92.

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[←21]

I remember, I was on the board of directors of a company acquiring the frequency time systems of a company in Boston that made cesium clocks. I have vivid memories of that board meeting where the president of this company that we were acquiring was bragging about how their clocks were accurate to one second in a million years. I raised my hand as an acquiring director, and I said, “I have only two questions. How do you know and who cares?”[See text following endnote for the answers.]

[←22]
Romans 5:12

[←23]

The ISV uses the word, “slavery”, but the word, “bondage” is in the KJV and is used here.

[←24]

According to Merriam-Webster.com, “null hypothesis” refers to a statistical hypothesis to be tested and accepted or rejected in favor of an alternative; *specifically* **:** the hypothesis that an observed difference (as between the means of two samples) is due to chance alone and not due to a systematic cause.

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For a source of all of Ivan Panin's works, write to John W. Irwin, Bible Numerics, 81 Bayview Ridge, Toronto, Ontario, Canada, M2L 1E3

[←30]

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[←34]

That’s a category of intelligence-gathering for every major intelligence agency in the planet Earth.

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