Life Science: Introduction to Biblical Bio-Logic

# Scripture and the Scientific Method

Complementary Not Contradictory

Sid Galloway – www.soulcare.org

# Do **NOT** Believe

- Anything I say
- Anything anyone else might say
- Unless there is sufficient <u>EVIDENCE</u> to make it worthy of your trust (faith, belief).

Sid Galloway - www.soulcare.org

# The Scientific Method of Inquiry is Logical and Biblical

Proverbs 14:15

"The simple believes every word, but the prudent considers well his steps."

Isaiah 1:18

God said: "Come let us reason together."

Hebrews 11:1-3

"Now faith is the substance of things hoped for, the Sid Galloway – www.soulcare.org

#### The Bible, Bio-Logic, & Hypotheses

- Bio-logical
  - "Logical" comes from the New Testament Greek term logikos, meaning "reasoned from the "logos" (the Word).
  - Jesus is called "The Word" (The Logos)
- Hypo-thesis
  - "Hypothesis" comes from a compound NT Greek term meaning "underlying belief"
    - "hypo" means "under"
    - "thesis" means "proposition" or "presupposition"

Sid Galloway – www.soulcare.org

# Testing (Verifying) is Biblical

- "Taste and see that the Lord is Good" (Psa 34:8)
  - Means we should examine the evidence of history and our own times of obedience to see if God really is good and faithful.
- "Test the spirits" (1 John 4)
  - Means we should examine the evidence to see if spiritual teachers are teaching the same as what the Bible teaches.
- Christianity today is being infected with a mystical, subjective, feeling-based faith that is NOT biblical faith based on objective, logical evidence.

Sid Galloway – www.soulcare.org

# Dangers of Feeling-Based Faith

- What if you were married with six kids and had a "FEELING" that God was telling you to sell your home and business, and give all your money to the poor?
  - Is this enough evidence to do it?
  - What other evidence could you examine?
- The Bible (God's Word) has enough principles about life (financial responsibility, marriage, parenting) to guide you in making wise decisions.

# A Hypothesis About the **Bible**

- <u>If</u> the Bible is written by God who transcends TIME (a God who exist is not limited by time),
   <u>then</u> the Bible should contain accurate statements about the future (prophecy).
- The Bible does contain hundreds of prophecies that have been proven true
- Not one of the Bible's statements has ever been proven false (falsified), not even its statements about the future, the ancient past, science, or any other subject.

Sid Galloway - www.soulcare.org

## The Scientific Method

- 1.Observation
- 2.Questions
- 3.Data Gathering
- 4. Hypothesis
- 5.Testing
- 6.Analysis
- 7. Conclusion id Galloway www.soulcare.org

#### 1. Observations Made

Observations use our five senses.

- Romans Ch 1 says observing God's WORLD demonstrates that:
  - God Exist
  - God is Powerful
  - God is Intelligent
  - (\* But we need God's WORD to know that He is good, because the world is infected by sin and suffering now.)

Sid Galloway – www.soulcare.org

#### 2. Questions Asked

- Curiosity is the heart of science
- To answer questions & solve problems
- To know God and cooperate with Him



#### 3. Data Gathered

- Samples of a population for example
  - Must be a large number & randomly selected
- Measurable data collected
  - SI units (System International)
  - SI units are based on the metric system
- Organize the data
  - Graphs, charts, etc

Sid Galloway – www.soulcare.org

# SI Units (System International)

- SI Units are based on the metric system
  - Metric system is based on multiples of ten
- This helps scientist all over the world communicate with data in the same form.
- . . .

# 4. Hypothesis Stated

- Hypo Thesis (Underlying belief)
- An "If . . . Then" statement
- Makes a testable prediction
- Can be proven false (falsifiable).
- Simplified Example:
  "If plants are sprayed with weed killer, then the plants will die."
- Now you state some hypotheses that can be <u>tested</u> (can be verified).

Sid Galloway – www.soulcare.org

# 5. Testing the Hypothesis

- Surveys
  - (The survey sample must be large & random)
- Lab tests (blood or urine test, etc)
- Controlled Experiment!
  - This is one of the most important tests conducted by scientists.

Sid Galloway - www.soulcare.org

# **The "Controlled" Experiment**

- <u>Variables</u> = factors that can change (like temperature, amount of water, etc.)
- Independent Variable = manipulated variable, which is altered by the scientist
- Dependent Variable = responding variable, which depends on the independent variable.
- Two groups are tested in a controlled experiment (control and experimental)
  - Control Group: all the variables stay the same
  - Experimental Group: The scientist manipulates the independent variable to test how the dependent variable responds.

Sid Galloway – www.soulcare.org

#### **Examples of Controlled Experiments**

- Weed killer on plants
- Medicines to cure certain diseases
- Now, can you think of some?
  - Remember Science Fair Projects you did in the past and will be doing soon.

Sid Galloway – www.soulcare.org

#### 6. Analyze the Experiment's Results

- Similar methods as "Data Gathering"
- Measurable data collected
  - SI units (System International)
  - SI units are based on the metric system
- Organize the data
  - Graphs, charts, etc
- Making inferences about the results

Sid Galloway – www.soulcare.org

#### 7. Formulate Conclusions

- <u>Conclusions</u> are based on your experiment's <u>results</u> must be formed by logical (logikos) thinking.
- <u>A Theory:</u> A hypothesis is eventually called a
   THEORY when it has been supported by many
   repeated tests and never yet falsified. It is a broad
   comprehensive conclusion about what is "buffered" to
   be true.
- <u>A Law:</u> A theory is eventually called a LAW when it has been tested for many years and never proven false (never falsified).

# **Evolution** is a Hypothesis

- Hypotheses are beliefs that must be tested
- Theories are hypotheses that have been supported by many tests, and have not been falsified by any significant tests.
- Much evidence contradicts the claims of evolution, so it is not worthy of the title "theory".

Sid Galloway – www.soulcare.org

## **Introductory Terms**

- Science = an organized way of learning about the natural world.
- Life Science = the study of life in the natural world
- Scientific Inquiry = the science method of asking questions and seeking answers
- Inference = an interpretation of an observation

Sid Galloway - www.soulcare.org

#### **More Terms**

- EMT Emergency Medical Technician (ambulances rescuing sick people)
- Veterinarian An animal doctor
- Botanist scientist that studies plants
- Park Ranger / Zookeeper
  - Caring for animals, plants, and parks
- Physical Therapist Helps people with muscle and joint injuries to improve
- Bio-Weapon: Spreads viruses or bacteria
- Physician A doctor for treating people
- Models or Simulations (p. 8 of text)
  - Model is the process of generating abstract, conceptual, graphical and/or mathematical representations of theories and data
  - Simulation is the implementation of a model over time