M13A1 Science Difficulties

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Chapter 1 - Analysis Of Scientific Truth (What Is Science ?)

Science turns out to be Bible critics’ best weapon, as one might expect in this age of science. STEM educations provide the quickest way to well paid jobs. “Science, has become an object of awe and worship.” - lecturer

We may accept that the Bible is the true word of God. Yet science is based on scholarly research and we can’t intellectually deny evidence. We’re surrounded with conveniences and wonders previously thought impossible. The Christian lives with the element of uncertainty. It’s easy to conceive all that’s under the umbrella of science as established truth when we as non-scientists or as technologists in applied science fail to conceive the challenges pure science faces. The small numbers of pure science researchers recognize the enormity of the yet unknown.

Science is a name given to accumulated knowledge about the world up to the now of today. Science is also the name given collectively to the methods used for gaining objective knowledge and insight. These methods are refined over time and become more reliable over time.

Applied science which occupies most researchers is more like technology. Technology depends on the discoveries of pure science but focuses on products. Pure science research depends on funding resulting from the products developed by applied scientists and technologists. Applied scientists depend on discoveries made by pure researchers who study primarily to advance knowledge without an eye to practical advantages.

Most of us think of science in the Exact sciences such as physics, chemistry, and biology. But there are also the Non Exact sciences focusing on history, sociology, and the humanities. Exact sciences provide a greater degree of certainty, unlike the Non Exact sciences.

Even the exact sciences vary in exactness. Physics and chemistry provide more objectivity than zoology and botany. Logic is a common component of all sciences. Logic “can be defined as that discipline of study which supplies the norms and standards to evaluate truth, and separate true conclusions from false ones.” - lecturer

As we learned in a previous course, each field of science has it’s logic norms and standards that can’t necessarily be used in another field. We must be sure that logic isn’t inappropriately used against the Bible.

Branches Of Science

The Normative Sciences / Logic and Mathematics. These define the idea of norms and standards by which to understand and interpret without bias. This provides the foundation for all other sciences.

The Physical Sciences deal with *repeatable events* in the world around us. Physics and chemistry are physical sciences. Much is mathematical in the physical sciences and therefore tends to be primarily objective and less subjective.

Biological Science studies plants, animals, and humans. Biological science incorporates physics, chemistry, and mathematics in a mostly objective manner but descriptive content lends an obvious degree of subjectivity.

Historical Sciences study the past in an effort to understand our present and plan the future. From ancient writings, pictures, statues, buildings, vessels, *etc*. we can begin to reconstruct the past. This is mostly descriptive, non-mathematical, and not repeatable. Archeology offers some exactness although generally gaps in discoveries leave uncertainty.

Sociological Science studies behavior and activity of people. People can’t or shouldn’t be made to fit laboratory conditions. Sociology might use statistics in mathematics but there’s little exactness in statistics.

Each of the sciences has its own methodologies. Each is independent but borrows from the others. The historical and sociological sciences lean most on the interconnectedness of all the sciences.

The sciences are a varied collection of information with different degrees of reliability. “Knowing this element of variable reliability before one can face those attacks against the Bible which are brought forth in the name of ‘Science’". -lecturer

Chapter 2 - The Bible And Science

Many branches of science form a core of man’s knowledge and avenues of discovery. Each branch differs in reliability. While each branch of science is formed with different technologies and technical vocabulary, they share commonalities in language such as hypothesis, conjecture, opinion, interpretation, school of thought, approximation, deductions, theory, observations, data, facts, laws. While data and facts might be reliable beyond doubt, yet hypotheses may be ill formed and generally need to be refined. Opinions based on such hypotheses may be entirely wrong.

Facts are reliable and beyond doubt. Anything not a hundred percent certain is theory. Theories over time are either refined based on progressively learned facts or are instead eventually rejected, entirely new theories replacing discarded theories. “Only the FACTS and LAWS of science can be used for any meaningful dialogue or interaction between science and the Bible.” -lecturer

Most attacks from science against the Bible come from theories not yet confirmed as facts. Of course some critics flinging these theories against the Bible may be so committed to these theories that in their opinion they may be believed as more than theory. Their enthusiasm for their premature conclusions must be refuted. No unestablished statement of science can be ignored.

Models from verified data, perhaps augmented with the most up to date theories enable scientists to better picture and explain what they study. The lecturer portrays a globe as a model of earth. Flat maps also model the earth but show distortions that globes don’t.

Qualitative models rely on descriptions. Multiple descriptive models might be drawn and dropped until researchers find the model closest to reality. Qualitative models are the norm in Historical,Archaeological, Legal, and Logical reconstructions of past events.

“The more complex phenomena in the Universe have to be studied with the help of the Quantitative Model.” -lecturer. Quantitative models rely on mathematics. Results might be graphed. Some quantitative models are pure equations. Quantitative models can represent such things as traffic flow and climate change, even language according to the lecturer.

“Quantitative Models of physical objects like atoms and molecules are often quite reliable.” -lecturer. On the other hand quantitative models in social behavior may shed useful matter to researchers but are underwhelming in reliability.

Without models, progress in research slows, perhaps stalls. Any model only *represents* truth, failing to show truly definitive truth. The model at best shows what might explain but the model may be one of many models that could more accurately discover actual truth.

A model can only show what we believe to be the truth. The theory of evolution and the theory of intelligent design are each alternate possibilities to explain the emergence of life on earth. The evolutionist can only say his model provides one possible explanation of life. Both the evolution and creation model need to be tested to determine the most likely explanation. The one with the better explanations will be most likely closer to explaining reality. The lecturer and I agree that creation/intelligent design seems better than chaos for eons of time. Nature seems to crank along successfully except when we do things directly that stall natural rhythms either intentionally or through unintended consequences.

The lecturer summarizes, telling us that in the 1970s the Big Bang theory seemed convincing to many scientists but that 50 years later scientists seem close to rejecting the Big Bang theory. Models don’t represent final truth and thus can't be used to question or refute the Bible.

Chapter 3 - Historical Studies

Our generation reveres science. Material sciences studying physical matter can be investigated with repeated experiments. Historical sciences can only study non-repeatable events. The Origin of life happened once. Archaeological studies look at events that happened once. Wars happen much too often, but we wouldn’t want to fight any previous war for the same reasons in the same ways again. Historical studies can never match the precision matching the studies in the material sciences.

Our preoccupation with the precision and near reliability in the physical sciences causes us to seek the same in the less precise sciences. Too often we tend to reject what isn’t so mathematically understood. Many want absolute proof Jesus rose from the dead. That’s not surprising because many today deny the holocaust. No doubt what we *want to disbelieve* comes into play. If it doesn’t fit our preferred narrative than we reject the logic that history provides as inadequate.

The Christian apologist must learn to ask: Is this fact, theory, or a model? Theory or model fails to provide proof against the Bible.

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1. How this module helped your studies

I’m reminded again in these lectures that the various sciences provide differing levels of reliability. The methods and norms of logic vary among the different sciences. People must be protected from the critic’s enthusiasm for his belief in his perceived truth in as yet incomplete unverified theories and models. Models take a long time to flesh out even a high degree of proof.

2. What new lessons you learned

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

I’d have liked a few more words on quantitatively modeling language.

This lecture seems to be a repeat, or a wrap up, of several recent lectures.

4. How does this lesson help you?

Effective apologetics doesn’t require a point by point alternative explanation. It most often requires seeking agreement from the critic that his attempted refutation to the Bible is not based on proven fact; that it’s at best based on theory and model. He may have a high degree of confidence in his theories and models but they don’t present proof.

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