

Philosophy, Science and Limits

1.10 What is Philosophy?

“Philosophy is saying what we all know, using words no one understands”
Anonymous

Philosophy is the love (philo) of the pursuit of truth (sophy). It originally included both religion and science, as well as philosophical abstractions. For example, I have a “Physical Philosophy” textbook from the 1890’s that is actually a Physics book. It was not until the 20th century that truth was segmented into religious truth and secular truths. Gradually over the last 100 years or so, science split off from philosophy to become its own “discipline”, as duality took hold separating life into materialist-secular and spiritual segments. Organized religion began to retreat following the Darwinian assault, and became a separate function. Without either religion or science to anchor it, the “philosophical” pursuit of truth has become the pursuit of untrammelled abstract rational thought. For the limits of rational thought see Sec 1.15.

“There is nothing so absurd but that it may be found in the books of the philosophers.”
Cicero

Will Durant in the “Story of Philosophy” identifies five fields of Philosophy: Logic; Esthetics; Ethics; Politics; and Metaphysics. Logic is the study of the ideal method in thought and research. Esthetics is the study of ideal form or beauty; art. Ethics is the study of ideal conduct; good and evil. Politics is the study of ideal social organization (not the art of capturing office or power). Metaphysics is unlike the other forms of philosophy; it is not the study of ideals, but the study of the “ultimate reality”: of matter (ontology), of mind, and the “interrelation of ‘mind’ and ‘matter’ in the processes of perception and knowledge (epistemology)”.

Note that this does not include physics, chemistry, biology, paleontology, geology etc.

1.11 What is Science? Deconstructing an Icon

It is not common to see the actual deconstruction of the concept of “science”. Most folks think they know what science is. I know I thought I knew, until I actively deconstructed it in order to determine how much truth science can actually be expected to produce, and under what conditions it can do so. The expectations of science actually far outstrip its ability to produce.

Is science a philosophy or a discipline.... Or maybe a worldview?

“Every science begins as philosophy and ends as art; it arises in Hypothesis and flows into achievement.”
Will Durant, *Story of Philosophy*.

Science began as a philosophy and has emerged as a discipline. The discipline of science is the pursuit of the development of information based on demonstrable observations using the rules of empiricism or forensics.

“Science is the century-old endeavor to bring together by means of systematic thought the perceptible phenomena of this world into as thorough-going an association as possible. To put it boldly, it is the attempt at the posterior reconstruction of existence by the process of conceptualization.”

Albert Einstein; “Science and Religion, part II. Ideas and Opinions.”

“Science is a systematic method of continuing investigation that uses observations, hypothesis testing, measurement, experimentation, logical argument and theory building, to lead to more adequate explanations of natural phenomena.”

New definition adopted by the Kansas State School board, 2006.

“Shall we be more technical? Science is analytical description, philosophy is synthetic interpretation. Science wishes to resolve the whole into parts, the organism into organs, the obscure into the known. It does not inquire the values and ideal possibilities of things, nor into their total and final significance; it is content to show their present actuality and operation, it narrows its gaze resolutely to the nature and process of things as they are.”

Will Durant, “The Story of Philosophy” 2nd Ed.

“Scientific Materialism” is a worldview, not a discipline. The expectations of Scientific Materialism are such that physical objects and the observer are sovereign. So it is a mental filter in the sense that non-congruent data inputs are considered immaterial, or paradoxically (within the constraints of empiricism), “wrong”. In today’s world, Scientific Materialism is being installed as the official presupposition of scientific endeavor. For example in the case of the Kansas state school board, the university “scientists” insisted that the word “objective” should be removed from the definition of science, and replaced with “naturalist”. This is, of course, the codification of a worldview. (The State School Board declined).

1.12 How Many Types of Science Are There?

There are FOUR major categories:

Theoretical Science: Hypothetical *creation of potential* information.
E.g. Cosmology; String Theory; Particle Physics

Forensic Science: Verification of hypothesis using *found* information.

E.g. Archaeology; Paleontology; Geology; History.

Empirical Science: Verification of hypothesis using *experimentally created* information.

E.g. Physics; Chemistry; Biology.

Applied Science: Creation and verification using empiricism and forensics for a specific application.

E.g. Engineering of all types.

Of the 4 categories, categories 1 and 4 rely on categories 2 and 3 for the heavy lifting of hypothesis verification.

So there are just two scientific **verification** methods: Forensics and Empiricism.

1.13 Does Science produce Fact?

Remember, facts are what exist, outside and separate from, the human mind. So, Science can closely *reveal* a fact, but not *produce* one...ever. The process of science is to develop a hypothesis concerning an alleged fact; take data concerning the fact; interpret the data with respect to the hypothesis, giving it meaning; understand the meaning in relation to existing knowledge; record the data, interpretation, and meaning (i.e. knowledge) for others to learn from and replicate. This concept is not only key to the understanding of science, it is misunderstood by legions, including some scientists, we shall see, who should know better.

A “law” of science is an attempt to describe that which is believed to be immutable fact. The terms, “theories and laws” are man-made nomenclature contrivances, and have been abused. For example, Einstein’s Relativity “theory” superceded Newton’s “Law” of gravitation. As in all science, laws *cannot ever* be considered to be 100% truth; laws are considered descriptions of the fact, with high probability of accuracy within the current capabilities and known limitations of the discipline.

The same goes for biological nomenclature, where even the “Kingdoms” are not clear-cut in real life. Example: Is a mobile, red algae a plant or an animal? (I don’t know for sure if there is a mobile red algae, I read about it somewhere...).

“Laws” have only limited verification, true at the specific time, place, and environment where the test occurred; thus, as Richard Feynman (PhD, Nobel Laureate in Physics) insisted, there is the need for total replication of *all* supporting theories and laws, every time an experiment is performed. Laws are also limited by the specific conditions of the observer as shown in Einstein’s Special Relativity. And the probabilistic nature of advancing knowledge is shown by Heisenberg’s Uncertainty Principle that holds that some things (for example, the position and momentum of an electron at a given time) cannot be known absolutely, only probabilistically. Moreover, the process of investigation itself can influence the behavior and characteristics of the phenomenon being investigated.

The probability of accuracy of a “law” increases with number of verifications, but is NEVER 100%. Any theory or law of science can be proven incorrect tomorrow, in subsequent testing, or with increased understanding.

Any “LAW” could be completely falsified at any time. Hubble’s “Red Shift” indicated an expanding universe, and thus superceded the assumed, presupposed “Law” of the “static universe”. It changed the entire dynamic of modern cosmology.

1.14 Does Science produce Truth?

Science produces **KNOWLEDGE OF FACTS** that is limited by both accuracy, and completeness of study. This knowledge is continually being updated, and frequently will be outdated due to new discoveries. When science discusses “truth” it means the ability to closely correlate a statement to the physical phenomenon being investigated. This meaning of “truth” folds into a worldview, compact and entirely limited to physical entities.

Absolute truth is not within the domain of science, because it includes non-measurables such as ethics, morality, love and hate, greed and generosity, bravery and cowardice, pride and humility, as well as singularities and extra-material, extra-universal, extra-dimensional considerations. Empirical science is **self-limited** to physical phenomena, that are measurable and repeatable. Intangibles that are without physical tracks are not included in the list of phenomena that are capable of being investigated “scientifically”.

“...those convictions which are necessary and determinant for our conduct and judgments cannot be found solely along this solid scientific way. For the scientific method can teach us nothing else beyond how facts are related to, and conditioned by, each other. The aspiration toward such objective knowledge belongs to the highest of which man is capable, and you will certainly not suspect me of wishing to belittle the achievements and the heroic efforts of man in this sphere. Yet it is equally clear that knowledge of what is does not open the door to directly to what should be .”
Albert Einstein, Science and Religion, Mein Weltbild, Amsterdam: Querido Verlag, 1934.

Five Rational Beliefs Not Verifiable by Scientific Methods:

- Mathematics and Logic (these are presupposed by the scientific method).
- Metaphysical Truths (minds other than my own, exist).
- Ethical Judgments (were the Nazis evil?).
- Aesthetic Judgments (beauty, goodness).
- Science itself (One can’t verify by using the scientific method that science discovers truth, much less *all* truth).

(William Lane Craig).

Five Entities Not Addressable by Scientific Methods:

- Fulfillment

- Soul
- Desire
- Intellect
- Friendship

“But I cannot accept as final any theory which is not provable. The theories of the theologians cannot be proved. Proof, proof! That is what I always have been after; that is what my mind requires before it can accept a theory as fact. Some things are provable, some things disprovable, some things are doubtful. All the problems which perplex us, now, will, soon or late, be solved, and solved beyond a question through scientific investigation. The thing which most impresses me about theology is that it does not seem to be investigating. It seems to be asserting, merely, without actual study.”

Thomas Alva Edison, Inventor; Columbian Magazine, Jan. 1911.

In discussing theology, Edison does not include things “not provable” as problems that perplex us. His worldview is apparent: all things that exist are tangible. No intangibles exist. So all issues will be “*solved beyond a question through scientific investigation*”, a statement that is not provable in and of itself, despite his demand for “Proof, proof!”. So the obvious (to us) contradiction is not seen by Edison, who lived comfortably within the paradox.

1.15 Does Science have any Limitations?

First, Empiricism:

Empiricism is the discovery of information surrounding facts, using *experimentally generated, or experiential* information.

The Limits of Empiricism

Do limitations exist for Empiricism? The denial of limitations is discussed in the Godel undecidability theorems. To deny the paradox, creates another paradox.

*“Godel showed that within a rigidly logical system such as Russell and Whitehead [Principia Mathematica, css] had developed for arithmetic, propositions can be formulated that are undecidable or undemonstrable within the axioms of the system. That is, within the system, there exist certain clear-cut statements that can neither be proved or disproved. Hence one cannot, using the usual methods, be certain that the axioms of arithmetic will not lead to contradictions ... It appears to foredoom hope of mathematical certitude through use of the obvious methods. **Perhaps doomed also, as a result, is the ideal of science - to devise a set of axioms from which all phenomena of the external world can be deduced.**”*

Boyer, History of Mathematics (Emphasis added)

So limitations *do* exist. Moreover, empiricism is based upon inductive logic, which is probabilistic. Perfect exactness cannot be obtained, except as probabilities dictate.

Empiricism has strict self-imposed limitations. It is limited to the “x,y,z,t” (space-time) box. For example, the empiricists can’t see back in time beyond the Big Bang, can’t see forward in time at all. Can’t see into the other possible dimensions predicted by String Theory (there are eleven, total, currently predicted). Can’t see beyond our universe. These limitations have become embedded presuppositions for the “scientific naturalism” or “materialism” worldview, in the sense that what can’t be seen empirically must not exist. This worldview is falsified mathematically by theoretical physics’ String Theory.

*It doesn't matter how beautiful your theory is, it doesn't matter how smart you are.
If it doesn't agree with experiment, it's wrong.
Richard Feynman, PhD, Nobel Laureate, Physics*

The Empirical method has restrictions that serve as limitations. Here are some of the fundamentals that are required of an empirical endeavor.

Empiricism requires that the observer must be able to see, directly or indirectly, both the theoretical cause and the effect of the theoretical cause. This pre-supposes that man can see or detect *everything* that exists.

The observer must be able to accurately measure both the effect and the theoretical cause.

Empirically, results must be repeatable. This automatically assumes that no singularities exist in the universe. This presumption has become a non-negotiable tenet of science and scientific materialism. This is an example of a *non-provable tenet of empiricism*.

Results must not be falsified; the exception falsifies the rule. It is not true that “exception proves the rule”; if it has an exception, it is not a rule.

*“If the red shift of spectral lines due to gravitational potential doesn’t exist, then the general theory of relativity is untenable.”
Albert Einstein*

*“Einstein was looking for crucial experiments whose agreement would by no means establish his theory; while a disagreement, as he was first to admit, would show his theory untenable. This, I felt, was the **true scientific attitude**.”
Karl Popper, “Autobiography”, Schillp, in *The Philosophy of Karl Popper*”; in
“Intellectuals Don’t need God”.*

As this shows, no matter how many verifications exist for a theory, it still is not 100% verified. As Einstein said, **one falsification would prove a theory false**. This attitude of objectivity is the attitude of the scientific method. If valid falsifications are ignored, then the investigator is pursuing, not science, but personal interests. This is perhaps the most important concept for the pursuit of truth.

Frequently results that are contradictory to the expectations of the hypothesis are dismissed as operator error, bad experimental design, etc. In spite of falsifications, many defend falsified theories as justified by “preponderance of evidence” no matter how tenuous or untenable that evidence might be. Thus politics and worldviews enter the realm of “science”.

Presuppositions (assumptions / prejudices / biases) should be clarified, then eliminated. Frequently they are concealed. Embedded presuppositions are the Achilles heel for much purported “science”. In fact this issue alone will become an embarrassment for future generations.

All supporting principles should be reconfirmed at the time any theory is being experimentally verified. (R. Feynmann). This is rarely if ever done, and is a potential source of large errors.

Experimental design requires the discovery, documentation, and stabilization of all non-essential variables. (This issue is frequently used to “falsify” results that are not favorable to current scientific dogma, or political correctness, by conjuring undetectable, unknown phantom variables or even phantom alternate theories that “falsify” the undesirable data).

Conclusion: Empiricism is not without serious self-imposed limitations that serve to restrict what phenomena it can observe. It can be subject to both fraud and manipulation toward a worldview. Or in the case of large companies, possible bias toward profit. For environmental exponents, bias toward exclusion. And only select topics might be chosen for investigation, producing exclusionary data.

Forensics:

Forensics is the discovery of information surrounding facts, using *found* information.

The Limits of Forensics

Forensics is not inductively based, it is deductive. An individual instance is observed and collected so that a single piece of knowledge can be recorded. For example, it is acceptable to make a statement and a corresponding syllogism,

Statement: This bone is mineralized, so it is ancient.

Syllogism: This bone is mineralized;
All mineralized bones are ancient;
Therefore, these bones are ancient.

But only if the premises are true. Are all mineralized bones ancient? Researchers at Arizona State University produced mineralized bones in less than three years. So premise B just might be false.

Beyond that, what if the following statement is made:

“These bones (B) look like a QRS crossed with a GHI. GHI’s are older, therefore QRS’s came from GHI’s.”

Expanding,

“These (some) bones (B) appear to have some characteristics of a QRS; they also appear to have some characteristics of a GHI. GHI’s are found in lower strata. Therefore, QRS’s descended from GHI’S.”

The implied syllogism is :

- (A) These (some) [bones] look like (are) [(some characteristics of)QRS and (some characteristics of)a GHI].
- (B) GHI’s are found in lower strata.
- (C) Therefore, all QRS is GHI.

A better syllogism would be:

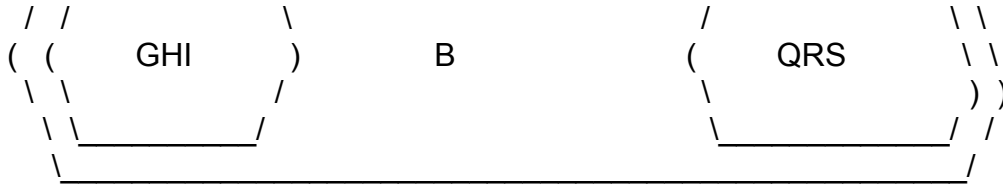
- (A) Some B is some QRS;
- (B) Some B is some GHI;
- (C) Therefore, all QRS is GHI.

These are actually groups of falseness, and are not even proper syllogisms. Premise C is not substantiable because there is no *proof* provided by the premises that the predicate derives from the subject, so it cannot be thought to be valid. In fact, the existence of this set of bones proves only that the creature existed. The extension of the claim of evidence of change from one to the other is without basis. This fallacy is a common extrapolation fault; it is also a logical fallacy, “jump to conclusion”.

Also, the conclusion (C), using “all” as a modifier, is false. One cannot make an immutable judgment on an entire population based on a small sample. This faulty conclusion is an example of false extrapolation. And it violates the syllogistic requirement for having a distributed, or universal middle term.

And finally, the jump from “look like” to “are” in the presuppositions of premise (A), is a Fallacy “Jump to Cause”. This fallacy carries forward into premise (B) as the subject.

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So the logic behind forensic statements must be watched closely for what is not said, as much as for what is said.

Forensics generally has the same limitations as Empiricism, except that *repeatability* is not required, and *extrapolation* is widely accepted due to incomplete data availability.

“The understanding must not be allowed to jump and fly from particulars to remote axioms and of almost the highest generality’ ...it must not be supplied with wings, but rather hung with weights to keep it from leaping and flying.”

Francis Bacon, “Idols of the Tribe”, the “New Organon”; from The Story of Philosophy, 2nd Ed, Will Durant.

Forensics can be highly probabilistic, sometimes far beyond the realm of common sense. It is subject to highly suspect conclusions, based on wildly speculative extrapolations. Forensics has seen widespread abuse for personal gain and for the promotion of a particular worldview.

The accuracy of forensics is highly dependent on the amount and quality of the “found” information, and on the accuracy and applicability of instrumentation used to evaluate it. Also, embedded presuppositions can color the interpretations given to the “found” information. So, much of forensic “science” is highly suspect. In the history of science, much extrapolated forensic science has been overturned later.

An example of incorrect extrapolation is the “garbage / flies” connection. It was long presumed that the cause of flies was garbage. Since garbage came first, then the flies would appear afterward, the extrapolation that they were caused by the garbage seemed appropriate.

Here are the actual truths of Paleontological fossil finds, stripped of extrapolations and speculative interpretations:

1. In very deep strata, animal life didn’t seem to exist.
2. Then in higher strata it did exist.
3. Then, after some more, still higher strata, more types of new fossil animals existed, fairly abruptly.
4. Fossil animals seem to appear at different strata, and in different locations.
5. Toward the highest strata, fewer types of new fossil animals existed.
6. Animals have many appearances in common, and many appearances differentiate them.

7. Whole animals are not found; generally only shells or bones remain, sometimes feathers. Only in the case of the frozen mammoth are entire creatures with all their features discovered.

Anything else is not a truth, it is an extrapolation, and must be examined for validity of both explicit claims and implicit, unstated premises.

Examples of Highly Extrapolated and Abused Forensics

1. "Folsom Man": An entire human race is *extrapolated* from rock chips found in New Mexico.
2. "Java Man": Actually a juvenile sloth cranium shard, with a monkey bone and a few teeth found 100's of yards apart. Placed in textbooks for decades. The evidence was concealed in the home of the perpetrator until his death.
3. Lewis B. Leakey's hominid: Claimed to be prehistoric due its position in the strata, it apparently turned out to be a modern Masai, buried deep. (attributed to Richard Leakey, son of Lewis).
4. Susceptible to fraud (Cardiff Giant; Chinese bird/dinosaurs).
5. Susceptible to journalistic manipulation, such as the breathless treatment of Darwinism with no mention of falsifiability or falsifications. (National Geographic).
6. Susceptible to political manipulation (Nazis: evolution, Mein Kampf, fascism and the Master Race).
7. Archeopteryx. It was called a "missing link" between dinosaurs and birds, without any substantiating evidence other than it's apparent possession of both teeth and feathers.
J. Wells, PhD, Molecular & Cell Biology
8. Archaeoraptor. National Geographic crowed about the bird-dinosaur connections when this fossil surfaced. Only problem: it's a fake, along with many others, including fake mermaids, produced in Chinese fake fossil factories.
J. Wells, PhD, Molecular & Cell Biology
9. Bambiraptor. Presented at a science convention as a bird-dinosaur, it was reconstructed with feathers and fake eagle eyes, despite the lack of any feathers with the fossil. "They should have been there", was the defense, when confronted about the fraud.
J. Wells, PhD, Molecular & Cell Biology
10. Bird DNA in fossil dinosaur bones. Analysis showed that the Bird DNA was 100% modern turkey DNA. Even though it could not have been present in the dinosaur, publications published the supposed link.

J. Wells, PhD, Molecular & Cell Biology

General Concerns about the limitations of science

Science is limited far beyond the dogmatic and technological boundaries shown above. It is also limited by the worldviews and personal motivations of the researchers, and by suppression of dissent and non-congruent findings by the research community.

False Science

False science occurs when procedures are not adhered to, or are circumvented. For example, empiricism proceeds from postulate to experiment to adjustment of postulate to correlate with the results of experimentation. False empiricism occurs when data that are anomalous to the original postulate are discarded, in order to protect the postulate. It also occurs when a myopic approach to a problem results in ignoring areas that need to be tested. And it occurs when worldview filters result in skewed interpretation, and data jamming occurs, forcing data to fit a preconception. So false science is happening if the underlying presuppositions are not acknowledged or worse, denied.

False science is correctable by independent repetition of the experiment; the hazard is in the preliminary press release of the wrong conclusion, which colors worldviews.

In forensics, false science occurs when “found” evidence is assumed to contain more information than it actually has (e.g. “the feathers should have been there”). This leads to faulty extrapolations, usually to protect a postulate. Forensics must be watched very closely for actual data on actual evidence, and to avoid errors of distance being made on reproductions of evidence, or even rumors of evidence. The pressure to extrapolate extravagantly is exacerbated by the pressure of maintaining existing dogmatic theories and worldviews based on those theories. This radically reduces the credibility of forensic evidence in today’s (publish or perish) scientific environment.

False science is institutionalized by denying publication to alternative theories that threaten the dogma held precious by the keepers of the institution. If only one side is allowed access to publication, falsity cannot help but flourish. This occurs if a worldview is in control of the institution, other than the openness of objective empiricism. The designated worldview becomes totalitarian in nature, protecting itself at the cost of intellectual honesty and truth in science.

One salient example of false science is the Precautionary Principle. This “scientific” probabilistic principle purports to protect the concerns of “select minds” regarding technologies or even social and economic conditions that are being predicted to be potentially hazardous. The evidence for this is purely extrapolated in whatever direction the “select minds” choose. These prognostications are dire and conspiratorial in nature, playing on both uninformed public fear and the desire to social engineer their own causes. The tools used are extravagant extrapolations, and questionable input data. So the result is similar to the abuses of forensics.

A fair statement of the Precautionary Principle is that, new things are, by definition, very “risky” because we have no history on their effect on mankind. Therefore, in order to reduce the “risk” of new things, new things will not be allowed; in order to reduce the “risk” of existing things, they will not be allowed to continue to exist. The things in question frequently are the technological fruits of the first world which are trade and/or environmental issues. Thus the pretense of science actually conceals politics and social engineering.

The Precautionary Principle is anti-science and anti-rational. The result is denial of the benefits of technology, and/or the redistribution of wealth as the “select minds” see fit.

Personal Motivations of Researchers

The personal motivations are best related by the documented statements of the researchers themselves. The statements below contain emphases added myself.

“When it comes to the origin of life on this earth, there are only two possibilities: creation or spontaneous generation (evolution). There is no third way.

Spontaneous generation was disproved 100 years ago, but that leads us only to one other conclusion: that of supernatural creation. *We cannot accept that* on philosophical grounds (*personal reasons*); therefore, ***we choose to believe the impossible: that life arose spontaneously by chance.***”

George Wald, the 1967 Nobel Peace Prizewinner in science (emphasis added)

“I had motives for not wanting the world to have a meaning; consequently assumed that it had none, and was able without any difficulty to find satisfying reasons for this assumption. The philosopher who finds no meaning in the world is not concerned exclusively with a problem in pure metaphysics, he is also concerned to prove that there is no valid reason why he personally should not do as he wants to do, or why his friends should not seize political power and govern in a way they find most advantageous to themselves...For me the philosophy of meaninglessness was essentially ***an instrument of liberation, sexual and political.***”

Aldous Huxley, Ends and Means (emphasis added)

“I suppose the reason we leaped at “The Origin of Species” was because the ***idea of God interfered with our sexual mores.***”

Sir Julian Huxley, Per Phillip Johnson, “Darwin on Trial”, InterVarsity Press, 1993. (emphasis added)

Suppression of Non-Congruent Findings.

Bjorn Lomborg’s book, “*the Skeptical Environmentalist*” did a statistical analysis of existing studies concerning “Global Warming”. The data concluded that the issue was far overstated, if it in fact existed at all. He was immediately attacked personally and threatened physically, and was censured by the Danish Committee on Scientific Dishonesty. He has been reviled in the press, including Scientific American Magazine. However, he has since been exonerated by the Danish Ministry of Science, Technology,

and Innovation, which overturned the censure ruling with a scathing evaluation of the DSCD's action. Other scientists and Scientific American Magazine have not repented. *From The Dartmouth Review, on-line.*

The editor of a Smithsonian publication that allowed a single article by a scientist discussing the possible evidence for intelligent design was fired, persecuted, and hounded. The proponents of intelligent design observed evidence are denounced for being "unpublished" at the same time they are being denied publication.

*"The doctrine which, from the very first origin of religious dissensions, has been held by bigots of all sects, when condensed into a few words and stripped of rhetorical disguise, is simply this: I am in the right, and you are in the wrong. **When you are the stronger, you ought to tolerate me; for it is your duty to tolerate truth. But when I am the stronger I shall persecute you; for it is my duty to persecute error.**"*

Lord Macaulay, Macintosh's History of the Revolution (emphasis added)

Moral implications of Science (e.g. Use of Nazi experiments on humans).

*"But in the course of time, the forms dominant in the highest degree, wherever produced, would tend everywhere to prevail. As they prevailed, they would **cause the extinction of other and inferior forms**; and as these inferior forms would be allied in groups by inheritance, whole groups would tend slowly to disappear; though here and there a single member might long be enabled to survive."*

Charles Darwin (Origin of Species, Ch10) (emph added)

Worldviews as Cognitive Filters to Science:

Anthony Flew (*author of the "Atheist Manifesto", "Truth and Falsification"; 1950, Socratic Society*), philosophic "father" of modern atheism, renounced atheism in 2003, in light of the existence of DNA, which he considers unexplainable without the input of a higher intelligence.

Flew was immediately denounced as "senile" by the atheist true believers. (*Fallacies Ad Hominem Abusive attack, and Red Herring*)

The Atheist worldview is so strong in some that it completely swamps out any non-congruent input, no matter how logical or rational.

1.16 Does Rational Thought Have Any Limits?

The Rational Anarchist

A Rationalist, by definition, needs adequate evidence for any decision or conclusion. Let's take the absurdist approach here: Say a Rationalist approaches a STOP sign. He would need evidence that the sign is correct for the environment, that the law behind it is applicable in this case, and that the current situation warrants government intervention. So he is free to decide to ignore the sign if the evidence is not in its favor. In the limit, the Rationalist is an anarchist, needing only his own counsel to guide his behavior. The Rationalist Worldview, in a real world context, is actually dogged by behaviors that are not rationalistic, such as stopping at a STOP sign even if it doesn't seem to make sense, logically. By obeying laws that aren't "rational", most rationalists do not actually behave anarchically. Thus they become "dualists" to their own beliefs, putting rationality aside.

Aside from the limits due to improper use of logic, how could rational thought have limits? Let's take a quick detour through the following scenario.

Dimension Dementia

Suppose that I stumble onto a culture that exists entirely within two dimensions. They exist only within a plane, having no thickness whatsoever. They ask me, "What is it like living in three dimensions?"

I answer, "Well, we have thickness, and volume".

They ask, "What is thickness? What is volume? We have nothing like that in our universe. Please explain what that is like."

"Well, it gives us the capacity to have mass, and weight....".

"Whoa! What are those things, mass and weight?"

I realize fairly rapidly that I cannot begin to explain to them, things that they cannot experience in their own universe. In fact, the 2-D dudes would not understand Newtonian physics or particle physics, because those rules don't apply if there is no mass. It would be totally meaningless to them.

Now consider a culture that exists in 4 or 5 dimensions, trying to explain to us the normal things they experience. We could not begin to understand. Our imaginations might stretch significantly, but the rules for things that exist only in higher dimensions would elude us.

*"The supreme function of reason is to show man that some things are beyond reason."
Blaise Pascal*

Transcendence

There are transcendent concepts such as mathematics that might apply in any or all dimensions, but how am I to know for sure? The "undecidability" theorems of Kurt

Godel show that systems ultimately require an *intuitive* conclusion of validity, due to the endless chain of ever higher ordered verifications required for *absolute* validation (proof). And what of existence before time...how am I to think about existing in a non-sequential fashion? Where cause and effect can't exist because there is no sequence, no time?

And what of my mind knowing your mind? In a sense, our minds exist in different dimensions already. My mind is self-contained and cannot overlay yours. So I cannot think my way into your mind. I can't know any more about your thoughts than that which you communicate to me. Even your actions don't convey the *process* of your thinking. Nor do the material items and artifacts that you produce.

Wittgenstein's Beetle.

"Imagine, he says, that everyone has a small box in which they keep a beetle. However, no one is allowed to look in anyone else's box, only in their own. Over time, people talk about what is in their boxes and the word "beetle" comes to stand for what is in everyone's box.

Through this curious analogy, Wittgenstein is trying to point out that the beetle is very much like an individual's mind. No one can know exactly what it is like to be another person or experience things from another's perspective (look in someone else's box), but it is generally assumed that the mental workings of other people's mind are very similar to our own (everyone has a beetle which is more or less similar to everyone else's). However, it does not really matter – he argues – what is in the box, or whether everyone has a beetle, since there is no way of checking or comparing."

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Godel's Hierarchy

And my own mind understanding itself with completeness, is it even possible for an entity to understand itself? Godel's hierarchy suggests not, at least without a still higher level of validation to verify the truth of what my mind "knows" about itself.

Yes, rational thought does have limits.

"The knowledge of truth as such is wonderful, but it is so little capable of acting as a guide that it cannot prove even the justification and the value of aspiration toward that very knowledge of truth. Here we face therefore, the limits of the purely rational conception of our existence."

Albert Einstein, Science and Religion Part I, Ideas and Opinions.