

# Second Philosophy

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Led by	Oswy Gothly / Keith Parker
Title	How Valid is Science
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## INTRODUCTION

This debate is the twin to last week's debate `How Valid is Spirituality` It is now time to put the concept of science under the debating microscope. For many this will seem an almost incomprehensible question.

The concepts of science are so ubiquitous in our culture that science seems to be the only road we have to true knowledge. In a sense, we may feel that we are all scientists now. I shall use the term scientific naturalism to describe the type of science that we may say is subject to our scrutiny in this debate. (*Much of the argument here is derived from `Naturalism in Question` edited by Mario de Caro and David Mearthur. Harvard 2004.*)

**Scientific naturalism subscribes to two core themes:**

**The Ontological Theme:** a commitment to an exclusively scientific conception of nature

**A Methodological Theme:** a re-conception of the traditional relation between philosophy and science according to which philosophical enquiry is conceived as continuous with science.

Under this view science provides the only true picture of nature. Natural explanations can be given of all things in a material world. Where non natural discourses are met say in ethics, moral theory, aesthetics and social science then they must be either reduced or reconstructed in respectable scientific terms, treated as useful fictions, or dismissed as illusory manifestations of pre-scientific thinking.

In general the respectable scientific concepts are the concepts of physics. Thus science is a unity, the world contains nothing but the entities recognized by physics, what is, is physics. In this sense science becomes foundational and with its rejection of the `a priori` in favour of the exclusively `a posteriori` science now becomes continuous with and encompasses philosophy.

Science is the only activity by which one can arrive at true knowledge, an epistemological claim, the entities it posits are the only true entities, an ontological claim, and the concepts used by science are the only genuine concepts we have a semantic claim. As one writer has said "*Scientific Naturalism tends towards a global doctrine, committed to all of these versions together, on the basis of the scientific aspiration for a complete and exhaustive explanation of all phenomena.*"

Given this awesome claim how are we to react?

Well some will accept but there are increasing numbers of philosophers we reject the seeming absoluteness of the hard line scientist position. They reject the claim that science is our only way to knowledge. They challenge the self consistency of scientific naturalism.

They question if scientific naturalism can adequately account for the phenomenon of mind, or agency or whether normativity can be reduced to physics.

Does science really give us an adequate account of human agency and motivation, can it account for human freedom? Can ethics and aesthetics really be explained without sui generis norms, the norms that scientific naturalism denies? Where does the study of history fit into scientific naturalism, where the writing of poetry?

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Embedded in these criticisms is a sense that scientific naturalism gives us only a thin conception of the world like a blue print with vital parts missing. Could this be why the picture of the crazy scientist has such a hold on the popular imagination?

Of course philosophers such as Dennett and scientists such as Pinker and Dawkins reject such criticism. Dennett has invented the metaphors of *Skyhooks and Cranes* to illustrate the issue.

The skyhook is a reaching down for explanation based on nothing material motivated by a search for an illusory unified non material explanation of things. The crane is the solid building of theory based on firm, scientifically verified foundations.

However even Dennett rejects the claims of what he calls greedy reductionism. This could be another response to our question, an acceptance of science but within strictly defined boundaries of explanation, science without scientism - is this a possibility - if so what would the boundaries be?

So what convinces you? Is scientific naturalism the way, the truth and the light to borrow a metaphor? Or do other explanations of the real exist that scientific naturalism in its blind certainty ignores?

## QUESTIONS:

1. Is scientific naturalism as described really the only valid way to describe reality?
2. Can ethics, aesthetics, historical analysis, the mind, human agency be adequately described in terms of scientific analysis?
3. Are we in danger if we reject scientific naturalism or in danger if we don't?

## REFERENCE:

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<http://en.wikipedia.org/wiki/Antireductionism>  
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<http://plato.stanford.edu/entries/reduction-biology>  
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## DISCUSSION:

**Oswy:** My real target is scientific reductionism but over to you to start where you will. Since I am a historian I fail to see where history can fit into the scientific scheme of things

**Sojourna:** Not sure about science as such, but certainly the ideal of rigor and method is valid.

**Oswy:** Soj in what sense is science rigorous? Or perhaps I should say more rigorous than any other sort of investigation of reality?

**Sojourna:** Well, science is rigorous in the sense that you can't be obscure - you have to present facts, data, method - everything is transparent and open to criticism and verification.

**Oswy:** Does science have some method that makes it the best way of seeing reality

**Shak:** Yes, experiment.

**Oswy:** I could say the same of history or aesthetics or ethics. Why do I have to reduce them to science?

**Oswy:** Shak could you develop that a little more?

**Marya:** because science is applicable to the reality in which we exist

**Shak:** I don't think other disciplines should be reduced to science.

**Oswy:** Shak, okay, but what about experiments?

**Shak:** Develop the idea of experimental testing? Sure.

**Simulat:** Isn't reductionism a bit of a straw man?

**Oswy:** Simulat, well a lot of scientists and their followers say its the only way you must reduce to physics to see the truth

**Shak:** The scientist looks at the world and wonders how it works. He makes a guess and proposes a theory. His mates read the theory and work out how it might be falsified by doing a test. They do the test. If the theory survives, it's good. For now,

**Oswy:** Is falsification really the way of science?

**Shak:** That tells us something very important about the world.

**Oswy:** I take falsification to mean you can never prove anything only disprove something

**Simulat:** Science uses falsification a lot - and it also observes, and it also verifies

**Shak:** Really the way? Depends what you mean, but I think yes.

**Oswy:** Most scientists don't use falsification

**Simulat:** no Oswy

**Oswy:** Simulat, no then don't or yes they do?

**Patrick:** I have always thought one of the tenets of science was reproduction of a testing experiment validated truth.

**Oswy:** Yes even?

**Simulat:** falsification is a sort of test - that you try to think of a way where your idea could be right or wrong, and then do an experiment to see which works

**Shak:** Oswy, conceivably most scientists don't know they're doing it, but they're doing it.

**Oswy:** Patrick there is a lot of sociological evidence that shows that most scientists don't use falsification. They have a theory and they heap up data to try and show its right its a sort of inductive method

**Sousinne:** I think it's very different in different branches of science.

**Oswy:** Most scientists are still using induction and that depends on an unwarranted assumption that nature is uniform.

**Shak:** Oswy, there's a big difference between the intention of the individual and the philosophy which underpins their work.

**Oswy:** Sousinne, could you develop that do you mean the difference between biology and physics.

**Sousinne:** What's your alternative to a uniform nature? Unpredictable nature?

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**Sousinne:** Oswy, I was thinking about natural sciences and social sciences...

**Oswy:** Sousinne, nature is very unpredictable it constantly surprises us and we have to change our theories to match. This was Hume's point.

**Simulat:** Have you come across Kuhn's idea of a paradigm in relation to science, Oswy? That's also pretty common - that most scientists work by trying to demonstrate things within theory paradigm - and that eventually they run into things where their paradigm fails

**Patrick:** Oswy, I don't think the truth can be established by the originating scientist, only by his/her colleagues who test it for themselves.

**Sousinne:** Oswy, every change is smaller than the last.

**Oswy:** Sousinne, I am trying to make a place for the social sciences and the arts and humanities against scientific reductionism.

**Sousinne:** Just the fact that there is constant change doesn't mean nothing is ever predictable. Sorry, but Hume was wrong there.

**Sousinne:** Oswy, if that's your goal, make the social sciences start using scientific method.

**Renald:** Sousinne... are you saying the general predictability of the universe is increasing?

**Sousinne:** So far, they aren't good at that.

**Oswy:** Simulat Yes and Kuhn denied at least at first that science ever established any kind of truth. Science made no progress at all. So why give it a privileged position?

**Simulat:** I have never heard anybody but a philosopher say that the social sciences can be reduced to physics Oswy

**Sousinne:** Renald: No, I am saying we're getting closer to truth, even if it's an asymptotic movement.

**Renald:** hmm

**Simulat:** Instead - I think that social scientists regret that the knowledge they produce isn't as reliable as physics

**Oswy:** Simulat you should listen to some hard line physics they would reduce everything to natural laws if they could.

**Teleo:** Science interprets reality in strict regard to its own thinking, tools and economic biases. I am not sure on what basis exactly a claim to some overarching human truth is made. It seems a giving of oneself over -totally- to the Instruments of technology themselves.

**Oswy:** Sousinne, I don't want to reduce history to physics

**Sousinne:** Oswy, social science hardliners are just as fatiguing to listen to.

**Oswy:** I don't see sociology as adequately explained by science either

**Simulat:** natural laws underlie everything Oswy - that is clear - but you don't learn about a society by studying atoms

Renald hopes this doesn't turn into an inter-logical grudge match.

**Simulat:** isn't sociology a science?

**Sousinne:** Most of it isn't, today, Simulat.

**Oswy:** Teleo, I pretty much agree with that. It makes claims that are too big. It denies the reality it seeks to explain

**Renald:** Sim, apparently there's some doubt about that. :-)

**Oswy:** Simulat I would prefer to say natural laws are one sort of description of reality but that there are others.

**Simulat:** What other ways of gaining knowledge are there besides investigation and checking Oswy? Revelation?

**Sousinne:** Just to take an example. Someone studying a social process somewhere. They call it a study, and they interview three people. Then they draw massive conclusions from those three interviews, make no predictions, and call the study complete.

**Patrick:** Oswy, do you think scientists fix the game by establishing operational definitions that limit the dynamics of a question?

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**Renald:** Patrick, they have to start somewhere.

**Oswy:** Investigation and checking does not always imply natural laws. The historian investigates and checks he gets into a disastrous situation when he tries to develop historical laws.

**Teleo:** nods Oswy. I also think that what distinguishes human beings as they are is that they are actually Historical creatures. This may be a by product of culture and the technology of culture itself, not sure about that...but still social and Historical I believe we are. Though the nature of history is changing these days too.

**Oswy:** Patrick, yes I certainly do. For instance the use of causal chains.

**Simulat:** Oswy - did you look at my essay on consciousness that I posted on your Facebook site? I dealt pretty well with the issue of reductionism there

**Sousinne:** Oswy, you don't agree with causality?

**Patrick:** I think the idea all could be assigned to natural laws was put into jeopardy when the Heisenberg principal was accepted.

**Oswy:** Simulat, yes and I have a little late I know replied. I see no objection to level of description hierarchies but I don't see that necessitates reductionism.

**Renald:** Must science be true to be valid?

**Sousinne:** Define truth, Renald.

**Reaser:** yes but Heisenberg works on a small scale

**Simulat:** That may mean that there are no historical laws - my point in that essay was to show that science isn't reductionist

**Teleo:** causality is more difficult in historical terms I think.. as a workable idea. it is more of a strict materialistic and mechanical notion.. it is devoid of integrating cultural artefacts in the main..

**Renald:** Sousinne, how did you mean it when you mentioned it earlier? The "we are getting closer to the truth" over time.

**Oswy:** Sousinee, I don't deny causality but I don't see that as a definitive description of all reality. It can mislead eg: as in the case of human agency

**Reaser:** it is more that there is a limit to what can be observed

**Sousinne:** What does the principle of causality mean, Oswy?

**Oswy:** Sousine Every cause has an effect.

**Sousinne:** Renald: I mean that our predictions are getting closer and closer to the mark, an admittedly ideal "truth".

**Sousinne:** Wrong, Oswy. Try again.

**Oswy:** Well if I am wrong Sousinne lets have your version

**Simulat:** Oswy - isn't it clear that there are lots of situations where the causal web is too dense to be able to say that this causes that?

**Oswy:** Simulat I think you underestimate the claims of physics . Hawkins claimed we might understand the mind of God. There is an attitude that everything can be reduced to physics and strict casual laws.

**Renald:** Sousinne... how far is that from circular? That science is truth-approaching because it is valid?

**Reaser:** it is said in the Hitch Hikers Guide to the Galaxy, that if we ever work out what the universe is doing it instantly becomes much more complicated

**Sousinne:** Oswy: the principle of causality states merely that the consequences of an action come AFTER the action itself.

**Simulat:** I think you misunderstand what Hawking was saying there - I thought that we might come to understand how physical reality was created

**Sousinne:** Renald: There's nothing circular about it. Our predictions ARE getting better.

**Renald:** Sousinne, of course they are.

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**Simulat:** and how physical reality works - but that doesn't mean that we would also know everything about society - to know about society you have to study society and to know about history you have to study history

**Reaser:** there are supposed to be limits at which point the laws of the universe break down, but I read something in New Scientist about the pushing further back of these boundaries

**Oswy:** This is Peter Atkins a famous scientist. My principle hope is that as the journey progresses and I lead you carefully to the summit of understanding you will experience the deep joy of illumination that science alone provides."

**Shak:** Biologist EO Wilson in his book 'Concillience' points out that chemistry is not just physics, and biology is not just chemistry, and zoology is more than biology etc. Every science has a starting point, and develops independently of the more basic sciences.

**Oswy:** Sousinne are you denying that there are chains of causality? hat seems pretty fundamental to science?

**Shak:** So nobody is trying to address everything in the world via physics.

**Renald:** Shak, no, just science :-) About which there is disagreement, as to what is and isn't, apparently.

**Shak:** Ultimately the question is, how do we help human beings set their purposes in life.

**Oswy:** Shak, I think you will find that the physicists are pretty much trying to do that.

**Simulat:** Chain is too simple an image Oswy - causality is a web - and every effect has many causes, and every cause has many effects

**Sousinne:** Oswy, no, I think the principle of causality is pretty strong. If you want to disprove it, just find an example of something caused by something that hasn't happened yet...

**Shak:** Oswy, it's not the case.

**Renald:** Shak, do you think that's a scientific matter? Purpose in life?

**Sousinne:** But Oswy... are you saying you don't agree with causality?

**Oswy:** In particular they would like to reduce consciousness to physics. And ethics

**Shak:** No, purpose in life is never going to be a scientific matter.

**Renald:** Oswy, can we at least quantify that as "some physicists"?

**Shak:** Purpose is values-based. fact-independent.

**Oswy:** Sousinee, you are the one who seems to be denying cause and effect?

**Sousinne:** Oswy, you prefer the soul as an explanation for consciousness?

**Teleo:** on the level of physics and in their own terms, the causal relationship are quantum indeterminate... currently. So science now quakes in the in the same face of an indeterminate history which, historical analysis has long been used to. Irrationality and indeterminacy.

**Sousinne:** When did I deny cause and effect, Oswy? =)

**Simulat:** I think that what you are saying is what a lot of people infer Oswy - but I have never heard a scientist say it - I hear only philosophers say it

**Oswy:** I am saying it can have a place in some form but it is not always appropriate and if it is not used then that doesn't not imply that the description of reality is lacking. only a scientist would say that.

**Oswy:** You seemed to deny that the cause and effect were directly linked ie all we could say was that one directly followed the other.

**Thomas:** the physicist Schrödinger got out of time-based logical relation- ordinary causality.

**Oswy:** Could I just point out that when there are a lot of arguments going on its sometimes difficult to reply at one and there is a lag so be patient folks?

**Simulat:** Oswy - do you really think that causality is so simple? That its just one damn thing after another :-)

**Renald:** Sousinne, Oswy, you are talking around each other. Sousinne never denied the principle as she defined it, but that definition seems different than Oswy's. There's no solution without addressing the difference... assuming it's important.

**Sousinne:** I don't get what you're saying, Oswy. You seem to have a quarrel with the principle of causality, and you blame me for something like that standpoint.

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**Oswy:** Simulat I think you will find Sousinne said that.

**Reaser:** if it is just cause and effect then it is this sadly clockwork universe

**Sousinne:** Reaser, do you ever watch a movie?

**Oswy:** Oswy: the principle of causality states merely that the consequences of an action come AFTER the action itself. Sousinne perhaps I misunderstood this can you explain more fully?

**Reaser:** limited by entropy

**Thomas:** I understand that one can take the time out of cause-and-effect. If-then means and-not.

**Sousinne:** Oswy, the consequences can't come BEFORE the cause. Please tell me you don't disagree with that.

**Oswy:** Obviously not

**Sousinne:** Well then.

**Sojourna:** I think the point about causality is not whether the consequences come before or after, Sous, but that they do come, necessarily.

**Reaser:** there are sub atomic events that show the opposite in certain cases I think

**Marya:** There seems to be some misunderstanding here - perhaps Oswy and Sousinne can both copy and paste or write up their positions so that it is clear ...

**Sousinne:** Reaser, if you HAVE seen a movie, or felt it was meaningful to do so, I think you could see the universe the same way... IF we were living in a predestined world.

**Thoth:** umm...I think 'appear' to show the opposite would be a better way to state that, no?

**Oswy:** But then you seem to be giving a definition of causality that has no content. ie there is one thing and then another but is there a connection ie is one caused by another? Anyway let's leave that to Facebook and pick up some other issues.

**Sousinne:** That a movie only ever has one ending doesn't matter until someone spoils it for you. =)

**Reaser:** predestined seems very dull to me

**Thoth:** ...and those are isolated. You don't see the same thing happening for even small systems of particles.

**Sojourna:** The movie analogy isn't quite right - a movie has an author, for the analogy to work one would have to believe in an author/God in the world - but determinism doesn't mean that.

**Reaser:** but one event is a counter example

**Sousinne:** Right. Imagine a movie WITHOUT a creator.

**Sojourna:** A movie making itself?

**Sousinne:** You tell me you can't imagine that? =)

**Sojourna:** Just because I can imagine that, doesn't mean it would exist. Pegasus. But sure, Oswy, let's move on to other issues.

**Sousinne:** Or perhaps even better, a movie you find somewhere, saying nothing of who created it, or if someone did.

**Oswy:** Well Soj you are raising one. It's linked to human agency. Free will do we have it. it does not fit the hard line scientific picture very well except as an illusion. I also note that we seem to have gone very silent on the validity of scientific method. Is it induction or falsification or inference to the best explanation?

**Reaser:** well you could argue that at some point in the future the movie has been run but to observe it changes it the movie according to Heisenberg that you already quoted

**Oswy:** there is also the issue of the value ladeness of science in spite of its denial of this and its posture as value free?

**Teleo:** Scientific methods are toolsets and methods of investigation. That science could claim such that, the screwdriver one uses to open an item and also, what was found inside reveals -in itself- such a truth or fact about a thing because it accords to a synthetic atomic substance-reality metaphysics, I am very dubious of a good set of techniques and causal explanations do not a human being make. imo

**Reaser:** the mere act of observation

**Sojourna:** And the transparency of method, I'd add.

Thoth Jantzen wonders if, before looking at the validity of scientific method as a whole, perhaps it is best to examine the components that make it up...? but he remains silent on it for the moment... ;o)

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**Shak:** Free will: the point is not whether we have - we certainly act as if we think we have it. We use our will to decide how to live our lives. It's our most important activity. We need some help to do that well, and we can't look to the scientist, because we're dealing with values, not facts.

**Oswy:** Thoth interesting but there seem to be rival scientific methods. this is curious in view of the fact that hard line scientists claim a unity in science?

**Thoth:** rival methods?

**Sousinne:** The normal process is that you find a correlation of some sort, or suspect one. Then you use induction to make hypotheses. After this, you test your hypotheses using falsification, and possibly come to a conclusion.

**Sousinne:** With that conclusion, you state some form of prediction.

**Oswy:** Thoth. Induction, falsification, paradigm changes , inference to the best explanation.. Etc

**Sousinne:** I.e. a testable statement, through reproduction.

**Reaser:** I have heard that Millikan's oil drop experiment is incredibly difficult to get good results for

**Thoth:** Oswy, it seems to me that some of what u said are parts of scientific method, and others are ways of looking at things, no?

**Thoth:** Oswy, observe, hypothesize, predict, test... no? Test would be 'falsification', induction come under hypothesize...

**Sousinne:** Anyway, science is both an inductive process and a process of falsification.

**Thoth:** paradigm change is just a way of constructing contexts to see things in.

**Sousinne:** Without either, you get no useful predictions.

**Reaser:** and yet science does seem to work in a lot of case

**Oswy:** Thoth, all I am saying is that there is no agreed method to establish scientific truth. So I feel upset when scientists claim truth for themselves and denigrate other forms of truth. I am very suspicious of the claim that scientists regularly use falsification as a method. They actually rely very heavily on induction.

**Thoth:** well, as Sim said earlier today, it's produced the best understandings we have about how the world seems to work.

**Teleo:** so it doesn't say much as an interpreter of reality then.. it seems to me.. it should have little claim beyond what has been outlined here.

**Sousinne:** Why is it suspicious that people use induction?

**Teleo:** Human reality I mean.

**Thomas:** I beg to differ. Induction is valueless.

**Thoth:** Oswy - do you feel it is possible to 'do philosophy' without science?

**Sousinne:** Valueless? Oho, a challenge!!!

**Oswy:** Reaser, Thoth, it tells us about how some of the world might work. It leaves out a huge amount - you are slipping into the Scientists way of thought.

**Simulat:** Oswy - what's your problem with induction?

**Thoth:** what does it leave out? Science doesn't claim to 'know' everything....

**Oswy:** Thoth Yes. Simulat it assumes a uniformity that does not exist.

**Reaser:** I sometimes think thought that scientist get carried away and will do things because they can, and ignore a moral aspect of the effects of their actions

**Thoth:** ...science recognizes that there are gaps...

**Reaser:** thus ignoring cause and effect

**Simulat:** how does induction assume a uniformity that doesn't exist Oswy?

**Thoth:** ...but that's more a limitation on us, really, than 'science'. All science does is help us understand how the world works and why, and it depends on us asking the right questions, and working out the tests to examine them.

**Teleo:** The Ontological Theme: a commitment to an exclusively scientific conception of nature

**Oswy:** Thoth it leaves out ethics, human agency, lots of aspects of consciousness history, poetry aesthetics literature. I would love to see a scientific account of war and peace?

**Dar:** induction assumes a uniformity that we have no other evidence of than induction itself

**Thoth:** Oswy - was your 'yes' to me earlier an answer to my question about doing philosophy without science?

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**Oswy:** Thoth Yes

**Reaser:** maybe chaos theory needs to be more highly developed?

**Sousinne:** Oswy, science is just sinking its teeth into the question of consciousness and agency. Does science not having an answer yet make the entirety of science worthless? =)

**Thoth:** much of those things u mentioned, Oswy, are very subjective things - valid ONLY in human contexts...

**Simulat:** Dar - what other ways of getting information about the world are there?

**Oswy:** nods, I have never said science was worthless, only pretentious.

**Thoth:** ...thanks for that answer, Oswy...

**Oswy:** Thoth to develop. I think you can have a philosophy of ethics without science for instance

**Thoth:** tell me then, what is the point of philosophy, then? Is it not - largely - an attempt to understand the world and our relation/place to/in it? How can that be done usefully without science?

**Sousinne:** Square root of two, I think.

**Thoth:** ethics is valid in a human context, Oswy, and human contexts are but a subset of the bigger picture, no?

**Simulat:** And Oswy - do you think it's possible to have ethics without information?

**Reaser:** I think that philosophers and scientist are maybe to blame for the plight of the world

**Oswy:** Well philosophy can help us explore the issues of the good life, what constitutes a good work of art, what beauty is, what qualia are?

**Thoth:** ...can it?

**Oswy:** It may comment on science but it does not depend on it.

**Sousinne:** Oswy... do you prefer the theological world-view?

**Thoth:** without referral at all to science?

**Simulat:** can you do any of those things without information Oswy?

**Oswy:** Sousinne no I am an atheist. But I don't see the relevance of that question?

**Dar:** not all information is objective and in the realm of science

**Sousinne:** It's very relevant, in precisely this discussion.

**Thoth:** take art - how can you really do that without some understanding of the mind and brain, and why things are beautiful to us?

**Reaser:** well cave men did

**Sousinne:** Because so far, through history, there have been only two principal competing world-views.

**Guillermo:** Thoth: mankind has done that just fine without science for most of its existence

**Thoth:** really?

**Guillermo:** yes

**Oswy:** Are you saying that anyone who wants to limit the claims of science to explain all reality has a theological point of view?

**Sousinne:** Being the scientific, based on observation, and the theological, based on revelation and scripture.

**Thoth:** we would not be having this discussion now without science, Guillermo, and further...we'd likely be extinct now without it.

**Reaser:** but theology to me is like mental constipation

**Guillermo:** learning from observation is not reserved for science only

**Sousinne:** No, I am saying you need to have an alternative if you don't like the scientific one.

**Thoth:** science also includes discovering that clubs are good for killing tigers... fire good for cooking food... etc

**Oswy:** Sousinne, sorry where did revelation and scripture come into this discussion?

**Simulat:** sure Dar - in a human world lots of information is subjective information provided by other people

**Guillermo:** and information does not equal science

**Dar:** or one's own experience sim

**Guillermo:** Thoth: that is not science

**Thoth:** how not?

**Simulat:** yes Dar

**Thoth:** observe, hypothesize, predict, test ... you don't need a lab smock or a PhD to do science.

**Sojourna:** There are scientists who are Christians, Sous, so it's not an either - or situation.

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**Thoth:** scientific method is what we call a formalized procedure of a system that 'works' in practical terms, too.

**Simulat:** But does anyone really think that their own subjective impressions are a good basis for ethics, or politics, or history?

**Teleo:** errrm science has little hope of explaining what a good work of art is.. less so, what even a work of art is. You can only have the possibility of even an -explanation itself- by first taking up fully as an experiencing human being, the work of art itself in the first instance.

**Oswy:** All, I am all in favour of a more multisided description of reality not a scientific reductionist one? That does not mean I believe in God or spirits or the supernatural.

**Thoth:** where you get the capital 'S' for science is where peer review and replication of results comes in.

**Sojourna:** They can be, Sim, in certain situations and for many they are - depending on your audience. For academics, obviously not.

**Oswy:** Simulat doe s anyone think that science is a good basis for understanding ethics and history?

**Oswy:** Science may play a part but its not the foundation of those studies

**Sojourna:** I think that science might provide one perspective on the issue of ethics, philosophy another.

**Dar:** I actually think science is better suited for ethics than philosophy

**Thomas:** Oswy - I think science comes after.

**Sojourna:** Yes, Oswy, I think so.

**Teleo:** Sim, I doubt that ethics could be in any way thought of as, having appeared from subjective impressions; they are arrived at by group experiences surely?

**Renald:** Oswy, don't think you have that option. You're either with or against ;-)

**Oswy:** Soy I don't disagree but say to reduce ethics to evolution or physics just seems incoherent to me.

**Sojourna:** Why do you say that, Dar?

**Dar:** I think ethics a rather pragmatic, evolutionary think, and its results that matter, not rationalized codes.

**Sousinne:** I think it's probably a matter of what questions you look for answers to.

**Shak:** What counts as a good result, Dar?

**Simulat:** Science certainly informs ethics, and also drives certain ethical questions - birth control grew out of scientific knowledge - and changed ethics a lot - and there is now active research in psychology about how we produce our ethical judgements

**Sojourna:** I agree, Oswy. I think science might offer one perspective. Only.

**Reaser:** science has given technology and technology alters our world , ideas can be moved about quicker now , so there are clear links

**Oswy:** Sorry Renald with or against what. I missed that.

**Sousinne:** If you're dealing with how, ask science.

**Simulat:** But nobody is saying that science can tell us what is good or bad in all cases

**Sousinne:** If you're trying a why, science won't be able to help you.

**Thomas:** Oswy- not reducing that way- but Salvador Dali has different values/tastes than most Baptists in my town.

**Thoth:** how so, Sous?

**Reaser:** analysis after the event will show that

**Sojourna:** I think science can answer all the questions, but from a scientific point of view.

**Dar:** yes, science, ultimately, can only describe the form of things.

**Renald:** Oswy, you were trying to pose the validity of science as other than a binary opposition of science and superstition. To which I say, good luck :-)

**Oswy:** Sous, we agree at last I would say the majority of Ethics is why?

**Thoth:** depends, again, on 'context', no?

**Sojourna:** Ethics is also how.

**Reaser:** it can only examine past events though at the moment

**Oswy:** Renald Right Yes I agree it s not a binary opposition.

**Thoth:** do you think logic comes into play there, Oswy?

**Sousinne:** Science will be able to tell you what the results of your various propositions will likely be.

# Second Philosophy

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**Thomas:** Soj- Dali wants one thing, Billy Graham another- either of them scientific/unscientific?

**Sousinne:** But it won't tell you which one to choose.

**Thomas:** I agree with Sous

**Reaser:** well mathematical reasoning

**Sousinne:** Unless, of course, you decide on a goal, and want to know which suggestion you should use to reach that goal.

**Oswy:** Soj It could be a small part but it will never explain the 'what it is like' to be giving an ethical judgement condition.

**Thomas:** Sous that's the limits of "scientific" ethics.

**Sojourna:** Thomas - not sure....

**Reaser:** and statistics, which also examines past events to find likely outcomes

**Oswy:** Soj It might also be argued that Science will never explain the qualitative nature of our existence at all. Remember the What Mary Knew thought experiment.

**Sousinne:** Past events don't give you statistics about the future, Reaser.

**Sojourna:** Oswy, yes, but I don't think science claims to be the only way to view the world.

**Teleo:** I think it is more a case of, what science is accessed, which science is accessed and how it is interpreted at policy level that I think, we derive most of our views of science; not often the actual science itself..

**Oswy:** Soj You should read some of the scientists I have read like Peter Atkins that is precisely what they claim.

**Sojourna:** What was the Mary experiment? (Er, maybe bring it up on Facebook)

**Reaser:** no but the models are based on observation of past data and looking at likely distributions as a predictive tool

**Marya:** Oswy is referring to the Mary's Room experiment by Frank Jackson

**Sousinne:** Past data is entirely useless for predicting the future, Reaser. That's statistics 101.

**Simulat:** It has been suggested that if Mary really knew as much about color as the thought experiment proposes that she actually would know the qualitative experience Oswy

**Thomas:** Soj- analysis of most ethics shows logical disorganization of most moral action absent an evolutionary theory.

**Reaser:** exactly that is why weather forecasts fail

**Sojourna:** Thanks, Marya, but that doesn't tell me enough :)

**Thoth:** anyway, I'm not sure that the scientific method is intended to answer ALL questions in ALL contexts - it is made to help examine the world. For other issues, you use different approaches...depending on the context, or what it is you're trying to do and the domain you're doing it in - but I think almost all ARE amenable to 'understanding' using the scientific method in some way, and can also be shown to have both a physical and logical foundation at some level if looked at completely enough.

**Reaser:** I don't defend them just point out what I have learned about them

**Sousinne:** No, weather forecasts fail because it's a hugely complex system, and our computers can only model it roughly.

**Dar:** well, valid is a word concerning logic. is science valid? Strictly speaking, it depends on how the results are presented or understood. Science relies heavily on induction, which is not logically valid. So, the results of science are not logically valid. The results are probable, and as long as that caveat is kept in mind, then science is valid for offering likely conclusions.

**Oswy:** Soj, Mary is the world leading neurobiologists. She knows all the physical facts about the brain and sensations. She has lived all her life in a room where there are not colours except white and grey. One day she goes outside and sees a rose. She knows she has learnt something new. Thus science in terms of physical explanation has not accounted for everything in the world. ie it has missed out qualia.

**Sojourna:** Thomas - can you give an example? Not clear...

**Reaser:** but what do they model the weather on?

**Thomas:** Thoth- people can resist their desires, their interests though most people do.

**Simulat:** agree with Dar

**Oswy:** Dar why do you think science was the best way to understand ethics. I didn't follow that?

# Second Philosophy

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**Sojourna:** I would say Mary's method is not scientific at all.

**Sousinne:** Reaser, I'd rather not explain that now. =)

**Renald:** Thomas, are you suggesting an evolutionary theory is necessary for ethics?

**Thoth:** (which Mary we talking about..?)

**Teleo:** sure Thoth, agreed - maybe the crux is to therefore to not allow science to claim the ontological base for interpreting human reality -as such-..

**Dar:** well, we can observe people being kind to each other, and we can observe people being unkind to each other, and we can look at the results

**Thoth:** sure. SM is a tool we wield, not a beast with a life of its own. ;o)

**Sousinne:** Oh! Who says science can't answer what beauty is?

**Dar:** lots of experiments in game theory seem to me to provide much more useful results than 'golden rules'

**Marya:** Thoth, they're talking about the Mary's Room argument by Frank Jackson

**Sousinne:** All we need to do is redefine beauty as "what a human considers beautiful".

**Thomas:** Soj- Baudelaire's early life as against his later one- both are equally logical/illogical, scientific/non-scientific

**Thoth:** ok, I must've missed that. Thought they were talking about you. ;o)

**Marya:** lol ... thankfully no :)

**Dar:** like, trust with revenge, tit for tat, tends to be a winning strategy.

**Oswy:** Sousinne, so you end up with a list. That does not tell me why a human thinks something is beautiful?

**Sousinne:** Then you could observe people watching prospective art, and note which offerings that trigger the "art" response in the watchers.

**Sojourna:** Thomas - regarding evolutionary theory - humans developed into social beings and acquired new ways of living together i.e. began to value friendship, for example. Isn't this a logical evolution? That friendship could be part of our ethical makeup - thanks to evolution into social beings?

**Thomas:** Thoth- most people want to indulge their desires, Nietzsche resisted that- at least early in his life.

**Sousinne:** Do that on a big enough scale, and you can find commonalities in the Arty stuff.

**Guillermo:** statistical beauty is doomed to be banal

**Sousinne:** And those would be a lot of the answer to "what is beauty"

**Sojourna:** Thomas - not sure what you mean by logical and illogical in Baudelaire - and what's wrong with that, anyway?

**Thoth:** Sure, but there is no question that in general, people generally find similar things to be 'beautiful' and other things 'ugly'...

**Simulat:** thank you too Oswy - very stimulating as always :-)

**Oswy:** I will not try to sum up because there are too many threads. I would like to follow up the issue of Scientific Methodology on Facebook if you are willing?

**Thoth:** ...of course there are variations among individuals...

**Thomas:** Soj- a non evolutionary theory might work to. Evolutionary psychology just seems most satisfactory to him.

**Renald:** Please do, Oswy

**Reaser:** that is not necessarily true

**Oswy:** I would also like to get into definitions of causation which seemed to cause some heat

**Sousinne:** But Thoth, even those would probably have patterns.

**Thoth:** ...but still, that points to a likely bio-neuro basis for that, and likely related to our pattern-recognition abilities.

**Sojourna:** OK, Thomas. Thanks.

**Oswy:** Also how would science really deal with ethics and the nature of beauty.

**Reaser:** maybe we are made to react by seeing how elders react and being made to conform

**Oswy:** And the What Mary Knew Experiment.

**Sojourna:** Oswy - can you put the what Mary knew on a separate thread on Facebook?

## Second Philosophy

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**Thoth:** it is way to easy to make metaphysical determinations about things that have physical explanations if you do not have a good understanding of the physical nature of the things you're looking at...

**Thoth:** ...that is one of the big problems of doing philosophy without science, imho.

**Dar:** anyone who thinks Mary wouldn't find something new in seeing red for the first time has never tasted a new flavor, imo.

**Sousinne** agrees completely with Thoth.

**Teleo:** actually Reaser, there is a great deal of truth in that imo.. though they don't so much have to make us.. we just do naturally what people do..

