Chapter Four

Meaning, Truth and Verification

It's not our name for it." the Principle of Verification(1)" that is. You can blame the Vienna Circle and, particularly, A J Ayer for that mouthful. But it is a pretty simple concept to wrap our heads around. In short what there saying is that if you've got an idea about the world the test of its "significance" is that you should, in principle, be able either to prove or disprove, i.e. to verify it. A couple of examples might help. First, an obviously "unreasonable" proposition:- "There is a fairy standing on your left shoulder. She is only visible, however, when no one is looking at her. She is made of mist; so she weighs nothing and you can't feel her in any other way. Any other attempt to record her presence makes her disappear instantly."

Now then, how are you going to deal with this proposition? You suspect that it is untrue of course. However, you can't prove it to be untrue because we have deprived you of any means of doing so. You might, for example, have had the idea of getting yourself recorded on camera to see if she turns up on screen. But our last sentence rules that out as any such attempt will cause her to disappear in any case.

The only sensible way to treat such a proposition is to ignore it. It is effectively "meaningless" as you can not even imagine how to ascertain whether it is true or false.

What about this one though. "The Moon is made of Mature Cheddar". Believe it or not, to a philosopher, this is a "meaningful" proposition! The reason is simple. We can test it. We merely catch the next passing Apollo, grab a lump of moon and taste it. This establishes pretty quickly, as we all now know, that the proposition is untrue. Gorgonzola perhaps. Cheddar - you must be kidding.

The point is that whether or not a proposition is meaningful depends *not* on whether it is true but only on whether you can *establish* its truth or falsehood. In other words *you can have perfectly meaningful propositions which are entirely untrue*.

We chose the Moon as an example for one particular reason. Which is that, in practice of course, very few of us would be able to test the proposition regarding its makeup. It is vitally important to understand that this does not weaken its " meaningfulness(2)" . *What matters is that it is testable in principle*. i.e. We can design experiments or procedures which would test the proposition if we had the resources and technology. Hence, for instance, all the following propositions are meaningful - whether or not they are true -

simply because we can do something to establish their "Truth Value(3)". With that in mind, here are some more...

Meaningful Statements

* Grass is blue.

* Elephants are afraid of mice.

* There is a Tenth Planet in our Solar System.

* Men are more intelligent than Women.

* The only way to disarm Iraq is through military intervention

Some carefully chosen examples there. All "meaningful" because we can test them. The choice illustrates a couple of useful points which you've probably already noticed. First, its not always easy to test a proposition. OK, the grass one is easy. Just look at it(4). But how exactly are we going to test whether Elephants fear mice? We don't know what is going on in an Elephant's head, so even observation of its behaviour won't necessarily inform us one way or the other. We might, perhaps, design an experiment in which mice are let loose in the vicinity of a random selection of Elephants and watch what they do. If they turn and run, we might deduce that this demonstrates fear. It is possible, however, that the gentle giants simply don't want to hurt the wee rodents so they gallantly vacate the vicinity. Conversely, apparent indifference need not indicate the absence of fear. It may be that they are so petrified that they are frozen into immobility. You get the gist. No doubt, with a certain amount of planning and forethought, one could actually design a credible experiment which gave a reasonably reliable pointer to the truth. It wouldn't be easy though and you may have to concede a lingering doubt about the interpretation of any results.

By contrast, investigating the proposition regarding a tenth planet is much simpler in principle though somewhat more difficult and expensive in practice. You just knock up a spaceship and go look for the damn thing. You might even solve the problem with a telescope search. If you find it, that's the end of the argument. The problem with this one is that if you don't find it, you haven't necessarily proved that it *doesn't* exist. Its truth value is unresolved. This has led some philosophers to argue that such propositions are - like the fairy - also meaningless; because you can't design an experiment to refute the hypothesis: Karl Popper even described Evolutionary Theory as Metaphysics because it was Tautological(5) and, thus, not Falsifiable. In addition to the erudite arguments you will find under that Evolution link, we would add two further answers to this attack.

To begin with, the argument really reveals a failure of the imagination. OK, so the kind of exercise we could mount today might be capable of "proving the positive" - by finding the planet - but the task of proving that there is no such planet is clearly well beyond our present or even prospective capabilities. We would need to be able to establish beyond doubt the precise contents of a sphere in space whose diameter was perhaps 10 times the present Sun-Pluto orbital diameter in order to be certain that there was no such planet. This would be roughly the equivalent of checking every grain of sand on this planet in order to be sure that one of them was *not* a small diamond. It sounds impossible and it may well always be beyond our reach in practice. But it isn't impossible *in principle*. There is no known physical law which would prevent us from successfully conducting the search. It is merely too difficult for us to handle for the time being at least. It is also apparently pointless. The reward for such efforts would not compensate us for the huge cost of conducting the search. So we don't and won't bother. But that is still not an objection *in principle*, it is merely a *practical* objection.

One hundred years ago, they could have raised the same objection to most propositions about the moon. They had no way of testing those either. But the barrier was technical, not logical. Who knows, we may eventually develop space technology which will be more than adequate to the task. Indeed, there might be other species out there whose technology already can prove the non existence of the tenth planet. In which case, of course, the proposition is clearly meaningful to them. To argue that it can't be meaningful to us simply because we haven"t yet got the technology to prove it doesn't exist is plainly nonsense.

The second argument is simpler. We can easily imagine proving the positive and, if we did, then not only must the proposition be meaningful, it would also obviously be true. Yet to argue that a proposition could be meaningful *only if true* is to miss the whole point which we discussed earlier.

The essential point is that for the proposition to have meaning we must be able - in principle even if not in practice - to prove ***either*** *that it is true* ***or*** *that it is false*. The tenth planet problem is thus not so difficult for the philosopher after all. It might be difficult or even impossible to prove it false. But finding the planet would be a relatively simple way of proving it true. This is enough to confirm that it is philosophically meaningful.

As we've mentioned, there is a famous example of this argument in which Karl Popper, who prefers a *principle of falsifiability* (local) argued that modern theories of Genesis and of Evolution are *not* Philosophically meaningful and are mere 'Metaphysical Research Programmes' because we can't prove that they are false. (To be fair, Popper later retracted (local) his objections, which just goes to show that even world famous philosophers can make - and admit - their own mistakes) Again, his argument was based on technical rather than logical objections. i.e. He couldn't conceive of a way to test the theory. Well, in the first place, what would we need to do to establish either its truth or falsehood? Presumably,

we would have to find a spare sterile planet and set up an experiment in which conditions were similar to those we expect in the early stages of a life-bearing planet. We then sit around for a few billion years and see what happens. While we're at it, we'd better set up several hundred such experiments together with controls in which the conditions are different in order to be statistically confident that we are seeing real effects and not "artifact" due to our contamination or whatever. If life in some shape or form sprang from these experiments and begins to evolve, then clearly the theory would be validated(ish).

Moreover, the theory could 'easily' be shown to be false by proving true some rival contradictory theory. (eg what the creationists allege - that all life and the fossil record spring into being both spontaneously and simultaneously.) The fact that the experiment is at least *conceivable* - there are no known physical laws which would prevent it being carried out - is enough to make the proposition /theory meaningful. OK, we can't -yet -even reach a suitable sterile planet, let alone "terraform" a few hundred of them. Neither have we the time to wait a few billion years for the results. But these are the usual trifling *practical* objections, not fundamental logical blocks. Elsewhere or elsewhen, it might be a trivial task.

Of course, one might reasonably object that even experimental success of this type would show only what took place in those instances. But this is no more than repetition of the points we've already agreed in discussing the limits of perception. (and is also an example of the so-called "problem of induction(6)") We have accepted that limitation and decided that *what we have to settle for in place of* ***knowledge*** *is* ***rational understanding***. Theories such as evolution are clearly able to advance such understanding and present rational arguments for the phenomenon of diverse life.

You see the point. Popper was merely guilty of a failure of the imagination. There is no *logical* reason why we could not set up such an experiment - even if there are one or two practical difficulties. The "ish" after 'validated' is there because, in practice, such an experiment could lead to results capable of different interpretations in similar fashion to the Elephant and Mice problem. For example, whilst it could demonstrate fairly clearly that life will emerge from inorganic chemicals given time and conditions, it may not support so conclusively the main tenet of Darwinism - that species evolve through a process of natural selection. The evidence might lend weight to other theories at the expense of natural selection. This is not a problem for the philosopher. The mere fact that we can't even imagine what shape such alternative theories might take is irrelevant. It just shows the limits of *our* imagination. As philosophers we don't *care*, in a sense, *what* the truth is. What matters to us is whether you can - in principle - *determine* what it is. We can possibly also help in deciding how to test it.

Lets just return to the missing planet problem for a moment to demonstrate the major

weakness in too literal an interpretation of "falsifiability". Essentially the view of the stringent falsifiers is that as no hypothesis can be "proved" by the examples of instances which support it but can be "disproved" by instances which don't(7), then the emphasis should be on the search for those disproving examples rather than the supporting cases. Validation then rests upon your continued failure to find such examples. The harder you look and the more failures you have, the more valid the hypothesis is seen to become. This may sound unnecessarily tortuous. To give a simple example where falsification makes sense, lets say we hypothesise that "all swans are white". We may have reached that 'provisional conclusion' on the basis of seeing a few swans. The falsifier approach is that simply finding more white swans is not enough to validate our hypothesis. What we must do is actively try to find a black one (or any other colour). And it is our continued failure to find one that continually increases our trust in the hypothesis. Like verifiers, falsifiers also understand that continued falsification never finally validates our hypothesis.The first non white swan and 'Poof'! the hypothesis will sink without trace. Falsifiers, in this sense, can be seen as no more than "fundamentalist verifiers". A verifier basically says that after a reasonable period of verification, although we'll never be certain, it is rational to accept the apparent validity of the hypothesis, on the understanding that should contra indications ever present themselves, we may need to revise or ditch the hypothesis. The falsifier is merely obsessive about maintaining the level of doubt.

But now lets consider the example of a real 'missing planet' hypothesis; viz the famous one which led to the discovery of the planet Pluto. This, as we learned in elementary school, arose from observed perturbations in the orbit of Uranus and Neptune. The hypothesis was that these were being caused by a so far undiscovered 9th planet whose orbit must, at some point, intersect or come very close to that of Neptune. On the basis of this hypothesis the prospective planet was searched for in approximately the right place at approximately the right time and as we all now know, was found to be exactly where the hypothesis said it should have been. And the ironic beauty of this story? Its not true! Or rather it is true but it shouldn't have been. It turns out that Pluto is far too small to account for the observed discrepancies in the apparent orbits of Neptune or Uranus. Essentially, estimates of planetary mass - and thus their gravititational effect - were significantly mistaken and when we correct the error, there is in fact no unexplained perturbation. Yet we *still* found Pluto - right where our mistake caused us to believe it should be! (Now there's the seeds of a cosmic conspiracy theory if ever we saw one!)

Now, what happened to the scientific hypothesis in this situation. From the point at which EW Brown revealed that the calculations were wrong, astronomers realised the hypothesis had failed. Nevertheless, search text books(8) up through the 1950 and 60s and the hypothesis is still offered as the explanation for the discovery of Pluto, despite Brown's published - and accepted - debunking. In fact, right up until our satellites were able to get close enough to Neptune and Uranus to measure their masses accurately, it was still widely considered an impressively validated hypothesis. Obviously we should have listened, on this occasion, to

the warnings of the falsifiers, under whose rules we were, of course, never entitled to conclude that it was validated. They're now able to say "we told you so" (metaphorically, that is; no-one objected at the time) The theory was falsified by the revelation that the initial data - which fuelled the assumptions about the relevant masses - was wrong. The fact that we discovered a planet where we happened to be looking, for entirely the wrong reasons, was just an amazing coincidence. (Perhaps)

But what if the data *had* been confirmed by multiple satellite and other experiments? and Pluto proved sufficiently massive to account for the perturbations? Then clearly we would still believe the hypothesis to date. The question for the falsifiers is what would they offer by way of a means of falsifying such a well supported hypothesis? To which the fair answer would be along the lines of "we don't necessarily know - but keep looking, just in case" and verifiers wouldn't argue too much with that. The relevant question, for ordinary people, is "when is it rational to trust the hypothesis?" Probably our best guide to that is "Occam's Razor(9)". The simplest answer, consistent with all the evidence, is to be preferred in favour of more complex explanations which do not offer greater explanatory or predictive power.

The simplest explanation in the light of the evidence was clearly that Pluto was the cause of an apparent anomaly. It appeared to fit the observed data so well that it was considered unnecessary and foolish to search for further explanation. It was, during that period of ignorance - based on wrong data - rational to believe that Pluto was the cause of the effect we believed we perceived. The fact that it turned out that this rational belief was entirely misplaced teaches us a valuable lesson about ALL rational beliefs. They are all rational based on what we know now. It is conceivable in ALL cases that evidence will arise which can undermine each and every scientific theory we have and destroy the basis for every rational belief we hold. Ultimately, although one's gut feeling may be that "The Matrix" is pure fantasy, and there are serious inconsistencies in the story, there is no logical reason or physical evidence that prevents its basic premise (that everything we perceive is essentially a Virtual Reality projection created by something more advanced than we are) being close to reality.

The key thing is that neither verifiers nor falsifiers have any difficulty incorporating the corrected data into their world view. They adjust the world view accordingly. In other words, there really isn't a conflict between the principles of verifiability and falsifiability. All rational and meaningful hypotheses must surely meet a mix of both criteria. That mix will be determined, pragmatically, by the number of observations it is possible to make of the phenomenon we are trying to explain. Finding a new planet can, by definition, be satisfied by a single observation. Having found it, its a fact. You don't invalidate a planet by 'not' finding it in other places!! Or even by discovering, as with Pluto, that you *shouldn't* have found it in the first place! And even if the damn thing disappears one day, it won't change the fact that it was once there - at least to the extent that we are currently capable of determining such data.

Consider, though, the hypothesis that a diet rich in animal fat is unhealthy for most human beings. Unlike a planet, where a single chance observation leads quickly to confirmation of its existence, measuring something like the effects of a diet high in animal fat requires thousands, possibly millions, of observations before any hypotheses can be truly firmed up, so here it makes much more sense to look for negative results like evidence that some individuals thrive on the stuff. Or that the afflictions attributed to high fat diets can in fact be laid at the door of other dietary factors.

The Theory of Evolution is clearly a mix. As a proposed chain of events, it is, on this planet at least, apparently a 'one off' (to date at least) and thus falls on the 'verifiability' side of the coin. Yet any 'sub-hypothesis' involving the precise mechanisms and specific evolutionary pathways of given species requires multiple observations and is thus more appropriately subject to the test of falsifiability. It seems to come down to class size! If the 'class' is small enough and you are thus able to measure the entire 'population' (i.e. one way or another you can record *every* instance of an event), then verifiability makes perfect sense. If you can only expect to see a 'sample' of the events, then we need to use falsifiability.

The discovery of Pluto also illustrates what we might call the maximum possible success of the empirical method.

Though we now know it is not having any significant influence on the orbits of either Uranus or Neptune, we still discovered it and the reality of its existence has thus outlasted the validity of the hypothesis which led to its discovery. It was not part of the truth for the phenomenon we were trying to explain (the apparent orbital discrepancies) but it seems to be established in its own right as part of the wider truth.

What was the next one? Oh yes, the superior intelligence of Men over Women. Mainly, of course, we include this one in order to invoke routine prejudices. Hardly anyone deals with this sort of proposition dispassionately. Male chauvinists argue passionately (local) that the evidence is overwhelming and only political correctness prevents it being accepted in the public domain. Militant Feminists, on the other hand would probably organise hate mail against any scientist who dared to publish serious research which supported the proposition. (Remember the fuss about the research which suggests that a woman's brain shrinks (local) during pregnancy?) The philosopher has to take the objective view in order to ascertain the truth. Whether and why s/he chooses to try to impart the consequences of such views to society at large is a matter of value judgement which we will get on to under the Third Question.

The prime question for the philosopher is to decide is whether the proposition is meaningful and only if it is would s/he go on to decide what it meant. i.e. can it be tested and, if so

how? And the answer in this particular case is pretty clearly that it can be tested; by first establishing our criteria for intelligence and secondly by examining a sufficiently large sample (all, if necessary) of both sexes and seeing how well they match the agreed criteria. That would settle the beyond dispute if we ever really need to know the answer. The questions as to what use you make of such information are again Third Question discussions and we'll probably come back to them later; though we will take this opportunity to plug a most intelligent discussion on this and related issues which is the book by Janet Radcliffe-Richards called "The Sceptical Feminist".

Finally we come to Iraq.

The proposition is that: "The only way to disarm Iraq is through military intervention". (local)

The first point to make is that it is a valid proposition. It is meaningful because we can imagine credible means by which we could either verify or falsify it. For example some argue that the only way to disarm Iraq is to remove Saddam from power (local) and although military intervention is a practical means of achieving that end, this version of the proposition doesn't "require" military action. It merely "requires" Saddam's removal. Hence, if the proponents of this view have an alternative means of disposing of Saddam, and this were to result in the disarmament of Iraq, then the initial proposition - that military intervention is required - would be proved wrong.

Others argue that the only way to disarm Iraq would be to reinstate some of the inspectors' earlier freedoms. (broken - looking for new link) Here there is not even any mention of regime change; while here:

the only way to disarm Iraq is to Threaten the use of American Military Force (broken - looking for new link) the implication is that the *threat* is the important thing.

Essentially we have at least four apparently valid propositions about how to deal with a perceived problem. How can philosophers help with a problem like this? By clarifying the issues and options. And why should they help? Karl Marx answered that best:

The philosophers have only interpreted the world in various ways; the point is to change it. (local)

The first problem with any of the propositions is the phrase "the only way". As it is easy to conceive of alternative methods, all four propositions are essentially falsified at the first hurdle (see how easy it is to debunk a political statement?). However, we know that the

proponents are not arguing with philosophical rigour, so we'll cut them some slack. What they obviously mean is that their particular proposal is "the best" rather than "the only". So lets tackle the problem from that starting point.

Like Pluto's discovery, one possibility is that the data we believe is pointing to a particular conclusion is incomplete or invalid. Iraq may simply not be the threat alleged. That requires us to gather the best and most complete evidence we can, which is what makes UN inspections imperative. Thats the first philosophical guidance. Until we know what we're dealing with, we shouldn't make any rash decisions. See how close it is to common sense? (Always a good test in philosophy).

What we do next depends on what the evidence reveals. The possibilities?

1 That Iraq is clean and innocent. It accounts for the destruction of all offending weapons and materials. Appropriate action? Apologise, lift sanctions, bring troops home.

2 That Iraq is guilty. It does possess the offending weapons but it co-operates in revealing and destroying them in an obviously open and honest fashion much like the South Africans did, in the last days of the Apartheid regime. Action? Verify destruction, lift sanctions, bring troops home.

3 That Iraq is guilty, but limits co-operation to doing as little as it believes possible to satisfy the international community that it is in fact behaving in line with the previous option while the inspectors confirm that they are not getting South African levels of access or co-operation. Action - persuade them that unless they do rapidly switch to the South African model, steps will be taken to ensure that the weapons can be found and safely disposed of, with or without Iraqi co-operation. These steps include various means of replacing the regime with one more likely to be compliant with international demands.

4 Iraq is shown to possess or not to have accounted for known weapons which are in breach of UN resolutions and refuses to acknowledge the conclusions reached by the inspection process or to cooperate in removing the weapons. Action - same as (3) but with less sympathy, shorter timetables.

The most likely option at the time of writing (late Feb 2003) is the third one. The implication is that regime change will be a necessity. The next obvious question is how that will be implemented. The options there are

Bribery / Blackmail:

Covert "surgical" targeted assassinations

Full scale invasion and occupation of the country.

These options are discussed in more polemical style here. The only point of including the topic in this chapter is to emphasise what we have said before, in regard to the relationship between "Truth" and the significance or "meaningfulness" of a proposition. There isn't one. The points of view expressed in regard to the Iraq problem are all meaningful propositions. Clearly they can't all be true. Indeed, their use of "the only way" is likely to have rendered them all logically false.

By now it should be clear that the keywords "Logical" and "Meaningful" have a very precise meaning in philosophical discussion which is not quite the same as their colloquial use. Let us ram the point home. In ordinary usage, "meaningful" is usually taken as the equivalent of "comprehensible". i.e. Anything you can "understand" is considered to be meaningful. In philosophy we must be more precise and distinguish between mere comprehensibility and genuine meaning. "Meaningful" in this context is much closer to "Significant" than "Comprehensible". The philosopher insists, reasonably, that any meaningful proposition must be either true or false. If it is impossible to conceive a way of testing whether a proposition is true or false, then it simply has no meaning - even if, like the fairy story, it is entirely comprehensible.

Similarly, "Logical" nowadays has the same connotation as "Rational". Here, we must distinguish between a condition of the mind and a condition in language. It is, for example, both rational and logical to assert that 2+2 = 4. This is merely a rule in our language which helps to define the term "4". It follows logically from propositions like "2 = 1+1"; "3 = 2+1" and "4 = 3+1". It is perfectly rational to recognise that.

However, it is also perfectly rational to avoid walking across a busy main road without checking on whether there is any traffic approaching. But it has nothing to do with "logic". i. e. there is no "rule" which states that you must be knocked down every time you cross such a road. Chances are that nine times out of ten, you wouldn't be knocked down. But that 'one in ten' chance is too high a risk. Clearly, however, it is not a *certainty* which follows from the definition of "busy road" in the same way that "4" follows from its prior definitions. Our reaction is based on experience in this case rather than predefined or immutable laws.

Conversely, it is "logically" possible to assert a false proposition - such as "3+2 = 4" but it would not be "rational" to agree with it! This is because logical propositions merely have to be the correct "form"; we must be able to analyse them. They don't have to be true. That is for the analysis to decide. *Rational propositions don't have to be true either - but they must at least accord with the evidence available to the person making the proposition*. For instance, to those born in earlier centuries, the proposition that the Earth was flat was entirely rational because they had no satisfactory evidence against it. We believe now, of

course, that the same proposition, if made today, would be entirely irrational as there is somewhat compelling evidence to the contrary. Logic doesn't shift ground like that. Both the propositions that the Earth is flat and that the Earth is Spherical are equally logical. The fact that they can't both be true does not weaken their logic.

Another way of looking at the difference is to recognise "Rationality" as the process of deciding (amongst other things) which "Logical" propositions are "True" and then acting accordingly.

Well if all that's clear, its time to take a look at How We Got Here...

(Last Updated 23 Feb 2003)

Footnotes

1. Principle of Verification - Back

"We say that a sentence is factually significant to any given person, if and only if, [she or] he knows how to verify the proposition which it purports to express—that is, if [she or] he knows what observations would lead [her or] him, under certain conditions, to accept the proposition as being true, or reject it as being false." AJ Ayer - Language Truth and Logic 1936

In other words, something has "meaning" (whatever that is) if it can be tested to establish whether it is true or false.

2."Meaningfulness" - Back

Jeez thats a mouthfull, can't we find a better word than that? Suggestions to the usual address please

3."Truth Value" - Back

don't blame us for that one either - Can't find the origin definitively. Seems to go back to George Boole who invented Boolean Logic in 1847. It still only means whether something is True or False.

4. Just look at it - Back

We could, of course, complicate the issue by a discussion of what constitutes 'green' - especially for those of us who are red-green colour blind! But even they rarely have a problem agreeing the colour of grass. The point is that the "test" - to all normal intents and purposes - requires a very simple observation. The others, in contrast, require greater or lesser experimental effort in order to create opportunities for observations. They also - to a greater or lesser extent - need more sophisticated interpretation of any results.

5. Tautology - Back

"All Bachelors are Unmarried" is true because it is how we define Bachelors.

Tautologies are the closest philosophy ever gets to an SBO (Statement of the Bleedin Obvious)

Or, if you insist on a more formal definition...

6. Problem of Induction - Back

Most briefly stated as "the past does not predict the future". For example, the proposition that "every time I visit my supermarket of choice, I can buy the coffee beans of my choice", might be based on the fact that on last 10 occasions I've been there, the beans were on the shelf. Does anyone think that this **guarantees** that they'll be there the next time I go?

7. Exceptions do NOT Prove the Rule - Back

This is mere Common Sense. The old adage "the exception proves the rule" is one of the crassest and most irrational statements about reality that we can ever make! If you have any meaningful hypothesis about the world, then any example which doesn't fit your hypothesis has proved your hypothesis wrong. Period.

8. Search Text Books - Back

For example, see "1001 Questions Answered about Astronomy" by JS Pickering question 240 on page 69. This best seller was published in 1958.

9. Occams Razor: [ah-kumz ray-zer] - Back
a: A logic theorem: "the simplest solution to a problem is the best solution."
b: Less is more.
c: A popular San Francisco rock group.
(wikipedia)

example? lets see... ...when we switch on a light, there are a number of possible explanations for what is happening. Received wisdom is that by throwing the switch we complete an electrical circuit which allows a current to flow through the filament in the light bulb and it glows so hot and brightly that the room lights up. Alternatively, it may be that the filament gets a sudden urge to consume energy (perhaps its hungry), so it telepathically manipulates the nearest human being to get him or her to throw the light switch and let the current flow. The fact that it also illuminates the room for the benefit of the human being is merely its way of saying "thank you". This is thus a symbiotic rather than parasitic relationship... Each of those is a philosophically meaningful proposition. Which do you prefer? The simpler one? So does Occam!