A Gang of Pandas

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Adapted from an email correspondence.

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> I am a Christian, novice philosopher/logician, and scientist in molecular biology. I have been reading *Ultimate Questions* and *Presuppositional Confrontations*. In the latter you state the following about the reliability of science:
>
> > If what is said about scientific experiments is difficult for some people to understand, the problem of "affirming the consequent" may be more easily grasped. Consider the following form of argument:
> >
> > 1. If X, then Y
> > 2. Y
> > 3. Therefore, X
> >
> > This form of reasoning, called "affirming the consequent," is always a formal fallacy in logic; that is, the structure of the argument is invalid. Just because Y is true does not mean that X is true, since there can be an infinite number of things that may substitute for X so that we will still have Y. Correlation is not the same as causation – but can science even discover correlation? Thus if the hypothesis is, "If X, then Y," the fact that Y turns up does nothing to confirm the hypothesis.
>
> If what you say about science is true, that does not anger me or deter me from doing what I do; however, I want to understand what you are saying. From my point of view, when I am in the lab the argument goes like this:
>
> 1. If this solution turns green (X), then chemical Y is present (Y).
> 2. The solution turned green (X).
> 3. Therefore, chemical Y is present (Y).
>
> Is this not valid? How am I misunderstanding what you have said?

Your example is valid, but it is something that occurs *after* the criticism against the scientific method. That is, the scientific method leads to false conclusions, and then these false conclusions are applied.

Consider the following:

Argument A
A1. If I punch Tom in the face (X), then Tom will be injured (Y).
A2. Tom is injured (Y)
A3. Therefore, I have punched Tom in the face (X).

Argument B
B1. If Tom is injured (P), then I have punched Tom in the face (Q).
B2. Tom is injured (P).
B3. Therefore, I have punched Tom in the face (Q).

Argument B is valid, but Premise B1 depends on Argument A, and Argument A is invalid, since it commits the fallacy of affirming the consequent.

Premise B1 depends on Argument A, because by itself, it does not eliminate an infinite number of alternatives. If Tom is injured, it does not necessarily mean that I have punched him in the face. Maybe he walked into a wall. Maybe he fell down some stairs. Or, maybe Harry, Mary, Jones, or an infinite number of other possible persons or objects, in an infinite number of possible combinations, beat him in the face (e.g. an alien with a hammer, a monkey with a wrench, or a gang of pandas).

So Argument B is valid, but unsound, because Argument A is invalid. Argument A represents scientific experimentation (the attempt to discover cause-and-effect relationships by positing hypotheses and testing them). Argument B represents an *application* of the conclusions of scientific experimentation (an application of a supposedly true cause-and-effect relationship).

Therefore, although Argument B is valid, it is also completely worthless.

To make this even more clear with an illustration:

If water is wet (X), then Vincent Cheung is president (Y).
Water is wet (X).
Therefore, Vincent Cheung is president (Y).

Valid, but untrue and worthless.

Returning to your example, your Premise 1 is like Premise B1 above. By itself it does not exclude an infinite number of alternatives. Thus:

If this solution turns green (X), then an alien spat in it (Y).
This solution turned green (X).
Therefore, an alien spat in it (Y).

This is what the entire scientific enterprise amounts to: first, it is a systematic repetition of the fallacy of affirming the consequent, and second, it is a systematic application of the false conclusions so obtained.

This is not to insult scientists, but to remind them to remain humble before God, and acknowledge their ignorance, for God has made foolish the wisdom of this world. As long as man puts himself at the center of knowledge, thinking that by his own power he can discover all things, he shall discover nothing.

> I completely agree with your last paragraph. I think the scientific community is rather arrogant, and thinks that it is the end-all-be-all of truth. Of course, it is probably because the community is run for the most part by secular humanists who hardly believe in objective truth.
>
> Anyway, in all honesty I am still having trouble with something. You mention this in *Presuppositional Confrontations*, and that is the notion of controls. You address this by saying that there could be an infinite number of parameters needing to be "controlled" in an experiment (i.e., some undetected component in a solution). However, if the controls are constructed properly will we not end up compensating for those variables anyway?

The scientific method suggests that you must identify variables and perform controlled experiments. But the problem of infinite alternatives remain the same.

Suppose a scientist swings a pendulum, makes some objects bump into one another, or performs some kind of experiment like this. He identifies certain variables such as altitude, weight, temperature, and so on. However, he can never say that he has identified all variables, such as an alien messing with his experiment from space, or an unruly and invisible spirit tempering with his project for its own amusement.

These latter possibilities may seem absurd, but according to what standard are they absurd? Only according to the scientist's own assumptions. Also, even if we admit that these are absurd, there are still an infinite number of variables that may or may not be present. The scientist may be missing an entire category of variables. For example, what if the scientist has no concept of temperature? He cannot then possibly measure and control it in an experiment. Yet it might be a decisive factor. If he does not know about it, he cannot even say that he does not know about it. Neither can he say that he *knows* this category of variables does not exist. There is an infinite number of possible categories of variables that he is missing. Therefore, a scientist can never say that he has accounted for all relevant variables, and he can never claim to have "constructed properly" any experiment.

The scientist simply does not know – he assumes without argument, without evidence, and without proof. He can do what he wishes, but if he claims that this whole thing is *rational*, then he is just arbitrarily calling it so. In fact, from even a simple analysis of science, there is no way that a scientist can claim to have any rational contact with reality at all. And certainly, he would have no right to call the Christian irrational.

The idea is simple. To know that any experiment is "constructed properly" the scientist's knowledge must be "bigger" than the experiment. But if his knowledge is already "bigger" than the experiment, then he hardly needs to perform the experiment to gain knowledge that is limited by the experiment. The only way to be sure that one has identified and controlled all variables that may affect the experiment is to possess omniscience. The conclusion is that only God can tell us about the universe.

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> After thinking about what you wrote for a bit, the question that lingers is this: Can I, first as a Christian and second a scientist, be consistent in trusting my results in the lab as far as pursuing truth? Granted, I as a Christian have the mind of Christ and recognize His Lordship over all creation, but does merely admitting that I know nothing and that God knows everything and trusting Him in my work of exploring His creation therefore give me the ability to describe my findings as truth? Or is the real truth the realization that my findings are true only inside the box that is "scientific study" as described by fallible humans rather than truth in the sense that Christ is Truth? If it is only true in a box, is it true at all?
>
> I guess, now that what you have said about science makes sense to me I am wondering about my work and how I can worship and give God glory in my work if the work itself does not purpose to find truth outside the box of science.

There is no rational justification for saying that there is any truth at all in science. The inherent irrationality and even epistemological impossibility are built into its assumptions and method. There is no way to justify empiricism, induction, and the scientific method.

There is a school of thought that claims that if we will use the Bible as the first principle of our thinking, then the Bible can justify or at least "account for" these things that are unjustifiable when considered in themselves (sensation, induction, science, etc.). However, this just makes it worse. It is one thing to say that these things could be somehow rational in themselves, and that the only problem is that there is no rational foundation to place them on, although to say this is perhaps nonsense in the first place. But it is much worse to realize that these things are irrational in themselves, so that no epistemological foundation can ever justify them, and then to insist that God and the Bible could justify them. This position makes God an accomplice to irrationality and falsehood. It is blasphemy. Even if we begin with God, we still cannot justify things that are false in themselves like "1 + 1 = 83629473.9273" or "The devil is a golden retriever named Skip." A true first principle destroys falsehood; it does not justify or support it.

As for science, it can remain as long as it does not claim too much for itself. Please see "A Career in Science" in my *Doctrine and Obedience*.

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> What about the results that science has yielded? Technology, medicine, the computers that we are currently using to communicate, the microwave that I used this morning, the ultrasound machine used to see my unborn son? If we take any type of medication, then are we relinquishing our health to the irrationality of science? Whether or not we can accurately describe truth may be another issue, but it can hardly be denied that science has yielded results that are of use to us.
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> You said that science can remain as long as it does not claim too much for itself, and again I agree. Does it not have its place, its role to play in our existence?

I have answered this question in "In God We Trust," in my *Blasphemy and Mystery*. But I will make some remarks about it here as well.

Think about what you are saying. It is as if you say, "I know that it is not true, but...." Well, if we have the first part, do we need to hear the second part?

To appeal to the effect of science (medicine, microwave, etc.), is only an appeal to the fallacy of affirming the consequent again. Affirming the consequent is just another way of saying an appeal to the result or effect. The assumption is that if you seem to be getting the result that you want or predict, then there must be some truth behind the assumption that yields this result. Again, that is a logical fallacy. Correlation does not indicate causation. But my contention is that science cannot even detect or establish correlation.

Of course science has a role. It is an irrational feeling in the dark. It can never claim to have the truth, and not just when it comes to religion. In this conversation with you, I have suppressed the problems with sensation and induction, but have focused on the method of science (the process of reasoning after the reliability of sensation and induction have been *assumed without proof, and even assumed despite proof to the contrary*). Once we introduce them back into the conversation, we would not even be able to get so far as to discuss method. That is, it is not that the scientist is feeling in front of him in the dark. He does not even have arms.

You might wish we could say more for science, but how? There is no rational basis to say more for it. Science touts itself as a rational enterprise, but here I am, giving arguments that even elementary school children can grasp and apply to completely destroy it. Science is essentially, pervasively, undeniably, incurably, and often arrogantly, irrational. To believe that it can discover truth is nothing other than superstition.