

The Relativity of wrong is wrong

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Einstein's relativity is supported by a large amount of incorrect thinking. A simple error cannot be pointed out in Einstein's relativity without some believer wanting to leap to its defence and present a large amount of other errors of their own. One example of incorrect thinking that is used to try to save Einstein's relativity is Asimov's idea he calls the "Relativity of wrong" where he seeks to create a great deal of confusion over the terms "incomplete" and "wrong".

As dealt with in other articles, Einstein in the way that he constructed his relativity theories is vague as to what he really means. His supporters then leap to his defence and try to amend, reinterpret and use other methods in a way that tries to make more sense of what Einstein is saying.

Yet another method to try to defend Einstein's relativity is to admit that the theory (or theories) is incomplete but then try to argue that incomplete does not mean wrong, or some other defence along those lines.

One of the sources of this line of defence seems to be Asimov, a popular science and science fiction writer in articles he wrote such as about the Relativity of wrong.[1] A critique of that article now follows:

Asimov starts the article: "I RECEIVED a letter the other day. It was handwritten in crabbed penmanship so that it was very difficult to read. Nevertheless, I tried to make it out just in case it might prove to be important. In the first sentence, the writer told me he was majoring in English literature, but felt he needed to teach me science. (I sighed a bit, for I knew very few English Lit majors who are equipped to teach me science, but I am very aware of the vast state of my ignorance and I am prepared to learn as much as I can from anyone, so I read on.)"

First of all we note that Asimov tries to present his humbleness that he has a "vast

state of my ignorance”, but when we read on in this article we find that is a pretence and his mind is firmly fixed upon what he believes and will not be persuaded to look on things in a different way.

Even if the English Lit major might not know much science, it may be that English Lit is his expertise, so may have more chance in pointing out that Asimov when talking about science using English was doing so inappropriately and not in a clear way. Of course if that were the intentions, Asimov was not having any of that and instead decided to present how he thought about things in how science progresses.

Asimov deemed that the English Lit major was responding to one of Asimov's articles where his point of view was: “I didn't go into detail in the matter, but what I meant was that we now know the basic rules governing the universe, together with the gravitational interrelationships of its gross components, as shown in the theory of relativity worked out between 1905 and 1916. We also know the basic rules governing the subatomic particles and their interrelationships, since these are very neatly described by the quantum theory worked out between 1900 and 1930. What's more, we have found that the galaxies and clusters of galaxies are the basic units of the physical universe, as discovered between 1920 and 1930.”

That's all basically in what is modern physics mythology of going by what was revealed to us from Einstein's miracle year 1905 and when Einstein became famous in 1919. So Asimov is really singing the praises of modern physics as revealed to us by Einstein.

According to Asimov: “The young specialist in English Lit, having quoted me, went on to lecture me severely on the fact that in every century people have thought they understood the universe at last, and in every century they were proved to be wrong. It follows that the one thing we can say about our modern "knowledge" is that it is wrong. The young man then quoted with approval what Socrates had said on learning that the Delphic oracle had proclaimed him the wisest man in Greece. "If I am the wisest man," said Socrates, "it is because I alone know that I know nothing." the implication was that I was very foolish because I was under the impression I knew a great deal.”

To a certain extent what the English Lit Major says is okay. The bit I would have difficulty with is the comment: “It follows that the one thing we can say about our modern "knowledge" is that it is wrong.” – Because from my perspective, the objective is to stop being wrong. We are attempting to achieve correctness. And if we have not been diverted onto the numerous mistakes of Einstein, we would be nearer that objective.

Anyway, Asimov decides to misunderstand everything the English Lit major says,

and distort everything to his beliefs.

So Asimov says: "My answer to him was, "John, when people thought the earth was flat, they were wrong."

That first bit is not too bad. Asimov is referring to the belief that the earth was a flat surface. Its not too clear historically about what ancient peoples believed what, when and where. But some of them must have held some sort of belief like that, and we now know it is wrong. So he is ok.

Asimov continues: "When people thought the earth was spherical, they were wrong."

Now Asimov is getting a bit more problematic. Most people in general conversation would say the earth was spherical, and by that mean the earth was roughly or approximately spherical in shape, and when pressed would admit the earth was not a perfect sphere. Asimov's point that he is trying to come to is that the earth is not a perfect sphere, so he is claiming those who say "earth was spherical" are wrong because he is taking that to implicitly mean "perfect spherical" when really a person making such a claim might be implicitly meaning approximately spherical. Asimov is thus capitalising on this wordplay.

Next he lays into his attack: "But if you think that thinking the earth is spherical is just as wrong as thinking the earth is flat, then your view is wronger than both of them put together."

That is to a large extent can be thought of as setting up a diversion, except it is leading to the way that Asimov thinks, he thinks in degrees of wrongness. An idea need not be either absolutely wrong or absolutely right, instead it can be partially right.

He continues: "The basic trouble, you see, is that people think that "right" and "wrong" are absolute; that everything that isn't perfectly and completely right is totally and equally wrong."

That's just wrong. He is rejecting absolute right and absolute wrong. He gets to that by misrepresenting the idea "the earth is spherical", which needed the quantifier "approximately" to make it a true statement.

So rejecting absolute right and absolute wrong, he says: "It seems to me that right and wrong are fuzzy concepts, and I will devote this essay to an explanation of why I think so."

That's wrong as well.

He has abandoned Aristotelian Logic.

And that is one of the protests against relativists, when they abandon "absolute" in physics, they then can go onto abandon "absolute" in other areas such as in Logic.

What we can do is merely appreciate the different way that they have decided to think

about things.

Asimov just wants to deal with things in a fuzzy way.

That can be infuriating to people who want to deal with things in a clear cut way of what is right and what is wrong.

Where specifically Asimov goes wrong is therefore, he seems to want only to think about things in a fuzzy way and reject “absolute”. If he had shown appreciation that things could be put in “absolute” terms then he would not be entirely wrong. Its the rejection of “absolute” that makes him wrong. He can deal with fuzzy terms if he wants, but he needs to realise that it makes more sense in “absolute” terms; a realisation he does not seem to have.

Asimov: “When my friend the English literature expert tells me that in every century scientists think they have worked out the universe and are always wrong, what I want to know is how wrong are they?”

So now he is getting into his beliefs about degrees of wrongness.

Really that's the wrong way to think about it and hence wrong sort of question to ask.

Asimov: “Are they always wrong to the same degree? Let's take an example.”

He then talks about ancient man believing the earth was flat based on the evidence they had.

Asimov: “Another way of looking at it is to ask what is the "curvature" of the earth's surface Over a considerable length, how much does the surface deviate (on the average) from perfect flatness. The flat-earth theory would make it seem that the surface doesn't deviate from flatness at all, that its curvature is 0 to the mile. Nowadays, of course, we are taught that the flat-earth theory is wrong; that it is all wrong, terribly wrong, absolutely. But it isn't. The curvature of the earth is nearly 0 per mile, so that although the flat-earth theory is wrong, it happens to be nearly right. That's why the theory lasted so long.”

What he is talking about is an approximation. If they had specified that they had an approximation that was only valid to a certain extent, then they would have been right.

So after belabouring his point about the earth being approximately flat he say: “So, although the flat-earth theory is only slightly wrong and is a credit to its inventors, all things considered, it is wrong enough to be discarded in favor of the spherical-earth

theory.”

In terms of absolute: “slightly wrong” really means “wrong”, but that's not the way he wants to think.

So next he considers the spherical earth: “And yet is the earth a sphere? No, it is not a sphere; not in the strict mathematical sense. A sphere has certain mathematical properties - for instance, all diameters (that is, all straight lines that pass from one point on its surface, through the center, to another point on its surface) have the same length. That, however, is not true of the earth. Various diameters of the earth differ in length.”

This is where he relies on “sphere” meaning “perfect sphere” when most people would use the term to mean approximately spherical.

Asimov then talks about observations and measurements of the earth showing it is not a perfect sphere.

And then he gets back to attack the English Lit major: “In short, my English Lit friend, living in a mental world of absolute rights and wrongs, may be imagining that because all theories are wrong, the earth may be thought spherical now, but cubical next century, and a hollow icosahedron the next, and a doughnut shape the one after.”

That is a misrepresentation of the English Lit major if that person is thinking of the earth as approximately spherical.

Asimov: “What actually happens is that once scientists get hold of a good concept they gradually refine and extend it with greater and greater subtlety as their instruments of measurement improve. Theories are not so much wrong as incomplete.”

By “incomplete” presumably means an “approximation”, so what he really should be saying is that scientists are working from a concept that is approximately true and are refining it with further measurements and observations.

Also “incomplete” if taken as should mean that an idea is an “approximation” then it only has a certain range of applicability before it becomes wrong. Just saying a theory is “incomplete” without making it clear what is meant that it is an approximation, can mean you are unclear, wrong or whatever.

After talking about Copernicus and so forth, he says: “Naturally, the theories we now have might be considered wrong in the simplistic sense of my English Lit correspondent, but in a much truer and subtler sense, they need only be considered incomplete.”

By “simplistic” he presumably means in the sense of absolute right and absolute wrong. So it sounds like he is dismissing looking at things in absolute terms as too simplistic.

Instead of things being looked at as “wrong” he is saying they should be looked at as “incomplete”.

In the course of his article he switches from “absolute” way of looking at things to a “relative” way of looking at things.

Recall he said: “when people thought the earth was flat, they were wrong.” In an “absolute” sense (or perspective) this is a true statement. But in the rest of the article he was switching to fuzzy thinking. So that he now means in fuzzy thinking that “flat earth” is true to a certain extent and false to a certain extent i.e. has a degree of wrongness, and it is better to think that the “flat earth” is an approximation with a certain range of applicability. Thus he can't even be consistent in the absolute/relative modes of thinking.

Even in his fuzzy thinking where there are degrees of wrongness and rightness he needs to be able to make statements saying whether some things are absolutely right or absolutely wrong.

Thus the statement “when people thought the earth was flat, they were wrong...” - switches in the article from where “wrong” is used to mean “absolutely wrong” to later mean “relatively wrong”(or “fuzzy wrong”).

Looking at “incomplete” from absolute terms there is no problem. It is the problem from his fuzzy thinking that is trying to blur the distinction between right and wrong, and then uses “incomplete” inappropriately.

But anyway, if we grant that Einstein's relativity is incomplete in the sense of approximations. What I do is just add extra bits to them to get better theories such as Lorentz's theory. Where many Einstein-supporters go wrong is that they insist on no updates.

Thus we have one set of Einstein defenders accepting that Einstein's relativity is incomplete, because they often accept that Einstein never presented a completed unified theory. Being incomplete then means it needs update. But, unfortunately we have another set of Einstein defenders insisting there should be no updates. That makes them wrong, and the “relativity of wrong” has played its part in enabling them to be wrong.

It is ironic then that many defenders of Einstein use the term “incomplete” to prevent Einstein's relativity from being corrected of its mistakes. In an absolute sense “incomplete” means that Einstein's relativity is wrong and needs update. But they get confused with their relative way of thinking, and then in contradiction to the requirement that update is needed insist that things stay as they are.

That then is why the relativity of wrong, is itself wrong.

Note: Of course my method is to recognise that Einstein's relativity is incomplete, and thus needing of updates, so I provide all the updates and turn it back into Newtonian physics, along the way adding things such as preferred frame which various relativists don't want added, because they want Einstein's relativity to remain incomplete. The use of absolute and relative modes of thinking has utterly confused them.

Supplementary

As supplement, William Newtspeare summarises things well [2]: “Humans instinctively believe what they are told, especially when the figure is revered as a great scientific mind, like Asimov. So it is no surprise that physics-believers tend to quote Asimov’s essay as a kind of documentary proof that current physics theories cannot actually be wrong, but only incomplete.

“The essay is well-written, in that he offers what he sees as evidential proof of his hypothesis; however if we read it with a critical eye, it soon becomes apparent that Asimov is mostly wrong, and the student mostly right with his criticism.

“Asimov wrote: “It seemed that in one of my innumerable essays, I had expressed a certain gladness at living in a century in which we finally got the basis of the universe straight. The young specialist in English Lit, having quoted me, went on to lecture me severely on the fact that in every century people have thought they understood the universe at last, and in every century they were proved to be wrong. It follows that the one thing we can say about our modern “knowledge” is that it is wrong.”.

“Like a religious man a little paranoid about criticism of his faith, Asimov heads straight for his core belief of relativity, and avows its correctness. However in his haste to defend current physics theories, I think Asimov really misses the point about what the student was saying. It is unlikely the student was really implying that our current models are incorrect, because he would lack the specialist knowledge to realise that. Rather what the student meant; was more that after major discoveries, physicists tend to pop the champagne corks and proclaim that they now understand

the universe, only later to realise that there is actually plenty more to discover.”

References

[1] **The Relativity of Wrong**, Isaac Asimov, **The Skeptical Inquirer**, Fall 1989, Vol. 14, No. 1, Pp. 35-44

<http://chem.tufts.edu/AnswersInScience/RelativityofWrong.htm>

[2] The wrongness of the the relativity of wrong, William Newtspeare,

<http://squishtheory.wordpress.com/the-wrongness-of-the-relativity-of-wrong/>