

Intro

Metaphysics of Physics is the much needed and crucial voice of reason in the philosophy of science, rarely found anywhere else in the world today. We are equipped with the fundamental principles of a rational philosophy that gives us the edge, may make us misfits in the mainstream sciences but also attracts rational minds to our community.

With this show, we are fighting for a more rational world, mostly by looking through the lens of the philosophy of science. We raise awareness of issues within the philosophy of science and present alternative and rational approaches.

We are your hosts and guides through the hallowed halls of the philosophy of science. Dwayne Davies, my husband, is the founder, primary content creator and voice for Metaphysics of Physics. I am Ashna and I help out however I can. You can find out more about us on the About page of the website.

You can also find all the episodes, transcripts, subscription options and more on the website at metaphysicsofphysics.com.

Hi everyone! This is episode twenty-two of the Metaphysics of Physics podcast. Today we are talking about inherent biases, artificial intelligence and parental neglect in the current affairs section.

Inherent Biases

The other day, one of our listeners shared a [diagram](#) on Facebook. It purported to show which parts of the brain are responsible for various cognitive biases. This is nonsense for many reasons, but we will explore some of the most obvious ones.

Firstly, this treats cognitive biases as though they were inherent functionalities of the brain. As though the reason we are sometimes guilty of these biases is that neurons in some specific part of our brains are firing.

But this is not how cognitive biases work. It is not as though they are the result of the hard-wired structures of our brain.

They are the result of a failure to properly reason. When we accuse someone of a cognitive bias, we are essentially saying "Well, what you said is not consistent with reality. You have made an error.". They are

not biases. There is nothing inherent in our brain which makes us more prone to make such errors.

But that is what this chart would like us to believe. That there are some parts of the brain which make us inherently inclined to such errors. But that is not how it works. Such errors are simply the result of improper reasoning or evading to reason at all.

If these so-called biases were indeed localized like this, then why is it relatively easy to avoid these biases? Why is it that the better one learns to think, the least subject they are to such biases? Why is it that highly logical people with sound reasoning skills seldom, if ever, are subject to such biases?

What is the motive behind all of this?

To excuse poor reasoning and to try to avoid the need to overcome the tendency some of us have towards these so-called biases. That way they can be poor thinkers and then blame their brain for being wired that way. And minimize or avoid the need to learn to avoid them by learning to think more rationally.

They want to evade responsibility for being prone to these biases. As though they cannot help it if they have biases built into their brain!

They *can* help it. By learning to reason properly to avoid such biases. But they would rather not accept the responsibility of learning to properly reason. It can be a long and difficult process. They would rather not do the work.

Perhaps some of them see little value in learning to reason. Why learn to reason when you can continue to be a poor thinker? And instead, pretend to be a victim of the unfortunate alleged structure of your brain.

This is a form of intellectual cowardice and laziness. And I find this morally reprehensible. It is difficult to imagine anything as immoral as the evasion of the need to learn to think rationally.

We should do our utmost to recognize any flaws in our thinking processes and attempt to learn to avoid them. That is how we become more rational and better able to deal with the world around us. Which is how we lead better and happier lives.

An Interesting Comment on AI

We recently received an interesting comment from one of our audience. It got us thinking and we have an answer you might find interesting. Here is the comment:

One possible way in which AI may emerge is the continual replacement of human parts until there is no longer any organic parts left.

e.g. as of today, I can replace most parts of a human, legs, arms, heart, most organs etc.

On the head I can replace the eyes, ears, nose & some parts of the brain.

As we understand more of what it is to be human, we will be able to replace more of the brain.

Eventually, the “consciousness” part of the brain will be replaced & on that day we will have an artificial AI or artificial human.

So, like organic evolution I think artificial evolution will occur in steps over a significant time period, but significantly less than that required by organic evolution i.e. 1000s of years not millions

Note: Given the expansiveness of the universe the only way humans can explore it is to evolve into artificial bodies since cosmic radiation is lethal to organic life & time travel & FTL travel are an impossibility.

And here is our response:

It is reasonable to postulate that we may very well enhance or even replace various parts of our body with mechanical or electrical components. It is conceivable that we might find a way to enhance our cognitive functions.

Despite what many people might believe, I think this is a very attractive idea with a great deal of merit. If we can find ways to safely enhance our bodies so that it is more capable and more efficient, then I see no reason why some of us should not choose to do so.

Certainly, it is not something which should see any legislative interference. If someone wants to do this stuff, let them. Even if it is provably dangerous, they should have the right to modify their bodies as

they see fit. It is their body and they should be allowed to do as they wish with it. Which includes undergoing risky procedures. They have the right to undertake such risks if they choose.

Imagine if we could have our eyes enhanced or possibly replaced so that we had greatly superior vision.

Or we could have enhancements to our muscles to make them stronger and more effective. Or nanite implants to make our brains more powerful and perhaps more resistant to damage and the effects of aging.

But I do not see that it will ever be total. I do not see humans becoming robots. Not completely.

It might be that these implants or improvements start to alter human evolution at some point. We might speculate that we might evolve to better exploit such implants. Might these implants be able to hasten evolution or direct it via genetic engineering? Conceivably.

Having said that, I am not so sure that we can replace consciousness as easily as that. At least, nobody has established that possibility yet, as far as I can tell. Until someone does, I do not think we can consider it an eventuality.

What about artificial evolution?

Well, obviously this kind of evolution is not the same as the evolution of biological organisms. This evolution is more of generic gradual development over time by means of a different process than used by organisms.

These systems will continue to develop over time. This would be a much more directed and rapid process than the evolution of organisms and would presumably involve a lot less trial and error.

But organic evolution is not as slow as this comment suggests. Evolution can take place over much less than millions of years. Humans have evolved a widespread lactose tolerance among many non-Asian populations within the last 30,000 years. And evolution can result in the generation of new species of fish within 90 years! Bacteria and viruses are rapidly evolving resistances and new strains within months!

Speciation might take tens of thousands or hundreds of thousands of years, but it can take far less. And evolution, which is the change in characteristics of a population, can take far less time still.

Remember, evolution is not the same as speciation. It simply causes changes in characteristics. And some of these changing characteristics result in speciation.

As for the impossibility of time travel:

Well we know that time travel is impossible. Time is simply a relational concept. It measures motion or change. It is not a part of the universe. And for time travel to work, it would require every event that has ever existed to exist separately.

Think about that. If I wanted to travel to, say last week and watch what I was doing, then the last week version of myself would have to exist in the universe. Else I could not go there to see myself. Not only that, but there would have to be a separate version of me from the week before and the week before and all the time in between!

So, every moment that ever existed would have to exist in the universe so I could travel back there! But that is clearly nonsensical.

As for faster than light travel:

I do not think we can rule that out. Einstein made that assertion. So far it seems to always hold true. But that does not mean that we cannot find exceptions.

The fact that many particles are allegedly entangled over long distances suggests faster than light travel may be possible!

Let's think about that. Consider two entangled particles. If we do something to A, then that affects particle B at near instantaneous speeds. But if A affects B, then there must be some interaction between A and B. Otherwise how could A affect B? By magic?

If we could show that an interaction between A and B would require faster than light interaction, we can show that faster than light something is possible.

So no, I don't think we have established that faster than light travel is impossible.

Does that mean we can travel faster than light via some technological means? I see no reason to believe that is possible.

Current Affairs Segment

In 2017 the 3-year old daughter of Joshua and Rachel Piland died of preventable jaundice-related complications. If the parents had sought medical care, it is likely that the child would have survived.

The parents withheld vital medical care for religious reasons, claiming that "God makes no mistakes". Apparently, they believed that if their daughter was to die that it would be the will of God and that they should let it happen! The parents sought to avoid being prosecuted for child neglect on religious grounds.

The Michigan Supreme Court recently announced that "It's not child neglect to withhold medical care if parents are doing so because of their legitimate religious beliefs". This upholds a Michigan state law stating that a parent or guardian should not be considered negligent if they choose to withhold medical treatment based on "legitimate" religious beliefs.

In the words of the prosecuting attorney Kahla Crino:

"This was a gravely ill child who was in need of emergency medical treatment. [The parents] did nothing, and she died. This is child abuse in the first degree. This is not mere negligence."

We agree. This is child abuse and not mere negligence. Their actions caused the child to undergo completely unnecessary suffering and then death. It is no better than if they beat the child and she happened to die.

You do not have the right to refuse to give your child proper medical care because of your religious beliefs. No matter how much you believe you are right. You do not have the right to evade reality and endanger your child's health or life because of your baseless belief in nonsense.

There are no legitimate religious beliefs. There cannot be any! Religious beliefs are those assumed on faith for no reason and typically defended against all reason. Nothing assumed on faith should be assumed to be legitimate or true. And it invariably proves to be untrue!

So there certainly cannot be legitimate religious reasons to let your child be sick or die!

Anyone neglecting their child on these grounds or any other is a monster and the child should be taken away from them.

Your children are not your property.

You must ensure that their basic medical (and other) needs are taken care of until they are of an independent age. You have no right to refuse to take care of those needs as long as the child is under your "care".

It does not matter what idiotic nonsense you think excuses you of your moral responsibility.

The Judge making these kinds of rulings should be disbarred. And then prosecuted for perverting justice in the name of religion. Which should be a legal crime in every civilized nation. One with severe penalties and long-term imprisonment.

I will give you a moment to feel the righteous rage you should be feeling at such evil. [pause]

Alright, that is the end of this episode. I hope you enjoyed our grab-bag of topics. Our next episode will be an interview with either Bill Gaede or Warren Fahy, depending on which we decide to release first.

Outro

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And as always, you are welcome to send in questions to questions@metaphysicsofphysics.com. Or you can also contact us via contact@metaphysicsofphysics.com if you want to talk to us about physics, philosophy of science, any of the other sciences or anything relevant at all. We are always looking for more people to interview or appear on the show!

Please tune in for the next episode and start thinking of some questions!
Until then, stay rational!