**To: IOPscience Journal**

**Classical and Quantum Gravity**

**As you can see from the below email exchange that I had with Ben Tippett, whom you recently published, he was unable to defend his theory.**

[**https://www.sciencedaily.com/releases/2017/04/170427091717.htm**](https://www.sciencedaily.com/releases/2017/04/170427091717.htm)

**I wrote:**

**I have some questions about your time machine:**

**Can you give an example of a place back in time where your passengers might go?**

**Tippett replied:**

***i guess anywhere?***

***short trips are harder to make for the travellers than long trips.***

**I wrote:**

**For example, could they go back to Earth, say in 1889, the year of Hitler's birth?**

**Tippett replied:**

***yes***

**--------------------**

**My new reply:**

**Let's say your machine arrives in Germany in 1889 with its load of passengers. At that time, the Andromeda Galaxy was located at a certain distance from our own Milky Way Galaxy. But since that time, it has moved over 60 million light years in our direction, on a path that will collide with our galaxy in a few billion years. If your passengers were really back in 1889, then the Andromeda Galaxy would have to be back in the exact same spot it was in, in 1889; otherwise, they wouldn't be in 1889.**

**How do you propose to get the Andromeda Galaxy to retreat back 60 million light years to the spot it occupied in 1889?**

**--------------------**

**I wrote:**

**If your machine follows the circle back in time,**

**what happens to everyone else here on Earth? Do we still exist?**

**Tippett replied:**

***yes***

**I wrote:**

**Does the passenger exist in the present and also in your machine?**

**Tippett replied:**

***yes***

**--------------------**

**My new reply:**

**Your answer raises more questions:**

**How is it possible for a person to exist in two different places at the same time? And since you are claiming that the person does, how do you determine that it is one person instead of two different people?**

**Since they are in different times, they must be doing different things: one is riding in your machine while the other is having wild sex with her boyfriend. What evidence do you have that these two aren't different beings since they are separated by distance, time, and activity?**

**And in the time they have been apart, zillions of bacteria in each woman have died, been born, and been expelled from their bodies. That means that each and every one of these bacteria are also in two places at the same time. Do you have any evidence that bacteria can be in two different places at the same time?**

**Zillions of photons have been striking the eyes of each woman, but they could not possibly be the same photons unless you can prove that a single photon can simultaneously strike the retina of a person located at two different locations at two different times. Can you prove that?**

**--------------------**

**Then Tippett explained his theory:**

***okay, so the way to think about this is as a tapestry. your tapestry is made of vertical thread (representing the paths of particles moving forward in time), and represents all locations over all time. space and time together. in most tapestries, the bottom of the tapestry represents the distant past, and the top of the tapestry represents the distant future.***

***In our paper, we’re suggesting a way for some of the threads to “turn around” on the tapestry, so that they start in an upwards orientation, then go sideways, then go backwards.***

***the important thing, with respect to your questions, is to note that in this picture the events which occur in the past (at the bottom) and the events which occur in the future (at the top) are set, and can’t change.***

**--------------------**

**My new reply:**

**Since the scientific consensus is that quantum fluctuations are random ... how can the future be set?**

**In order for the future to be set, random fluctuations would have to be predictable thus allowing only one path into the future: the future that has been set. Since they are not predictable, the future can assume any number of possible paths, and therefore, cannot possibly be set.**

**The same is true of the probability amplitudes of electrons and photons: their exact locations cannot be predicted. There are countless objects with which they could interact. Do you have evidence that all of these particles have been set to follow a single path into a predetermined future?**

**--------------------**

**Tippett wrote:**

***your time travelling thread can interact with the threads in its own past, but nothing can be changed.***

**--------------------**

**My new reply:**

**Can you give an example of *any* interaction which does not change something?**

**As your machine passes through the sky over Germany, air molecules will be moved and energy will be converted. In the daytime, shadows will be cast over the ground as it passes by. Light from the Sun that would have struck the ground will be reflected back into space, reducing temperature ever so slightly. How is it possible for a machine to not change the environment through which it passes?**

**--------------------**

**Tippett wrote:**

***this is called the “novikov self consistency condition” and it applies to all time machines in general relativity.***

**--------------------**

**My new reply:**

**The Novikov self-consistency condition is not widely accepted among physicists. That might be why it is referred to as the Novikov self-consistency "conjecture."**

**(from dictionary.com) conjecture:**

**1. An opinion or theory without sufficient evidence for proof.**

**2. A guess; speculation.**

**--------------------**

**Tippett wrote:**

***so you can choose go and fuck with the past, but only if the past events leading up to your choice include the effects your future self have had in travelling back in time.***

**--------------------**

**My new reply:**

**Thanks for demonstrating a fatal flaw in the Novikov Conjecture: it is unfalsifiable because any challenges that arise in the form of paradoxes are simply dismissed as impossible. An unfalsifiable theory is nothing more than an assertion.**

**Another fatal flaw of both the Novikov Conjecture, and your theory ("*include future effects* "), is that time machines must have existed in the past at a time when ... they did not exist.**

**The only way to explain that ... is by magic.**

**--------------------**

**Tippett wrote:**

***hahaha***

***bn***

**--------------------**

**I look forward to your reply,**

**neo**

**http://theskepticarena.com**

**Here is Tippett's final email reply**

**Tippett quoted me:**

**>How is it possible for a person to exist in two different places at >the same time? And since you are claiming that the person does, >how do you determine that it is one person instead of two >different people?**

**Tippett replied to me:**

***this is the fun part of our time machine.***

***but it renders the (mathematical) causality of the universe quite messed up. the way to determine that it’s one person is that their path through spacetime is one long connected line (even though it’s kinda wind-y)***

**(He didn't answer my question. That response avoided my question. In fact, his reply didn't even make sense. And what happened to my question about the Andromeda Galaxy?**

**The Andromeda question destroys the pseudoscience of time travel which is why he had to ignore it)**

**Tippett quoted me:**

**>Since they are in different times, they must be doing different >things: one is riding in your machine while the other is having >wild sex with her boyfriend. What evidence do you have that >these two aren't different beings since they are separated by >distance, time, and activity?**

**Tippett replied to me:**

***I mean, the only way to tell is to compare them, but we do ironically discuss this point in the actual paper… in a mathematical way. yikes. but yeah. you compare them. the same way you tell that two people are the same people in real life.***

**(You should ask him, if he can provide one example from real life where two people are the same person. As my bacteria and photon examples pointed out, the comparison won't work out very well for his theory)**

**Tippett replied to me:**

***all these aspects aren’t things that need to be “proven.” rather, they are complications that must be recognized when one is working through the physics.***

**(Scientific theories don't work that way. As a professor of physics and mathematics, that is something that he should not have to be told)**

**Tippett quoted me:**

**>Since the scientific consensus is that quantum fluctuations are >random ... how can the future be set?**

**Tippett replied to me:**

***this is a big debate between the structure of quantum mechanics and general relativity. no one knows the answer. i’m working in the formalism of general relativity.***

**(Unless I am misunderstanding him, he disagrees that "quantum fluctuations being random" is a consensus)**

**Tippett quoted me:**

**>In order for the future to be set, random fluctuations would >have to be predictable thus allowing only one path into the >future: the future that has been set. Since they are not >predictable, the future can assume any number of possible >paths, and therefore, cannot possibly be set.**

**Tippett replied:**

***yeah, quantum mechanics is bananas and disagrees with general relativity on a bunch of these things.***

**(What happened to my question about the probability amplitude?)**

**Tippett quoted me:**

**>Tippett wrote:**

**>your time travelling thread can interact with the threads in its >own past, but nothing can be changed.**

**>**

**>I replied:**

**>Can you give an example of any interaction which does not change something?**

**>**

**>As your machine passes through the sky over Germany, air >molecules will be moved and energy will be converted. In the >daytime, shadows will be cast over the ground as it passes by. >Light from the Sun that would have struck the ground will be >reflected back into space, reducing temperature ever so slightly. >How is it possible for a machine to not change the environment >through which it passes?**

**Tippett replied to me:**

***It doesn’t change if a time travelling version of you was always in your own past disrupting things in this way.***

**(That contradicts his earlier contention that the time traveler could not interact with the environment. Apparently, he forgot that he wrote that)**

**Tippett replied to me:**

***actually, you know the movie “12 monkeys”? like that. brad pitt’s character, as a child, remembers seeing himself as an adult.***

**(He just contradicted himself again by admitting that the traveler can interact with his environment)**

**Tippett quoted me:**

**>The Novikov self-consistency condition is not widely accepted >among physicists. That might be why it is referred to as the >Novikov self-consistency "conjecture."**

**Tippett replied to me:**

***find me a relativist with a phd who disagrees with it.***

**(Appeals to Authority aren't going to fly in a scientific debate.**

**That may work in politics and religion, but not here)**

**Tippett quoted me:**

**>Thanks for demonstrating a fatal flaw in the Novikov >Conjecture: it is unfalsifiable because any challenges that arise >in the form of paradoxes are simply dismissed as impossible. An >unfalsifiable theory is nothing more than an assertion.**

**Tippett replied to me:**

***no. you’re thinking of it incorrectly, in terms of the wrong framework. Novikov’s conjecture isn’t an argument about cause and effect, it’s a boundary condition for solving differential equations. They aren’t consistently solvable without it.***

**(That reply does not address my accusation that the conjecture is unfalsifiable. When people avoid the direct question and try to distract attention to another issue, it is almost always because they cannot respond to the accusation. Nor did he even attempt to explain how time machines could have existed in the past before they were invented. All he did was assert that they did because they are threads in some kind of tapestry)**

**Tippett replied to me:**

***thank you for your questions, i do not know if i will have time to reply to any more after this.***

***ben***

**(Obviously, he has had enough, and it is clear from all the opportunities that he has been given, that no answers will be forthcoming. So I did not reply to this incredibly weak and pathetic response)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Your journal has a choice: you can continue to publish unsupported pseudoscientific bullshit in order to appeal to a larger audience and bring in more money, OR,**

**you can maintain your journalistic integrity and the reputation of your publication by rejecting sensational nonsense.**

**The choice ... is yours**

**I included other scientific magazines and journals in the CC list because I think this is a lesson that everyone needs to learn if we are going to survive in "post-truth" America where "fake news" and "alternative facts" now carry more weight than the truth.**

**Choose your side carefully**