*Free will: towards a disillusionment
by Dimitrios Grigoriou*

*(Quotes from his essay appear in italics)*

**(My replies will follow in bold font)**

*In this paper, the impossibility of free will in either a deterministic or non-deterministic universe is demonstrated. Common circumstances that obfuscate this conclusion
are also discussed along with some practical implications.
Let us consider the following prepositions:*

*1. The interactions (i.e., all the events that take place inside us and around us)*

 *fully determine the evolution of our life.
2. The outcome of every interaction can be either random or deterministic.*

*If the outcome is deterministic, there is nothing that we can do to change our life. On
the other hand, if it is random, there is still nothing that we can do. Consequently
nothing is in our hands.*

**Right here at the beginning of your long essay is where you palmed a card.**

**You based your entire argument on the logical fallacy known as “False Dichotomy” in which you present your audience with 2 options and hope that no one will notice that you are hiding a third (free will).**

[**https://en.wikipedia.org/wiki/False\_dilemma**](https://en.wikipedia.org/wiki/False_dilemma)

*We cannot change something predetermined, neither can we control something random. In other words, the course of our life is going to be sometimes predetermined and sometimes uncontrollable. Normally one would not need to say anything more. The above lines prove that Free Will as we understand it in our everyday speech cannot exist.*

**A claim based on a logical fallacy is not “proof.”**

*Since this is a conclusion that many people will intuitively dismiss as sophistry,*

**Since your claim was based on a logical fallacy for which you have yet to provide any proof, their intuitive dismissal is the only rational response.**

**The word “sophistry” would have been a better title for your essay:**

[**https://www.dictionary.com/browse/sophistry**](https://www.dictionary.com/browse/sophistry)

*in the text that follows, we are going to examine the extent to which this proof is valid and compatible with our everyday life.*

**That is all we are asking for ... proof.**

 *Change happens as a result of interactions.*

**That is provably false.**

**A photon travelling through space does not have to interact with anything to change its position.**

**(skipping the next section as it offers no evidence for anything;**

 **and resuming at “Determinism”)**

*Determinism is the assumption that everything that happens in the universe is fully
determinable by laws. Obviously we cannot know the entirety of the laws, but we
keep discovering them and increasing our ability to predict the future. In a deterministic universe we may or may not manage to eventually explain everything. Regardless, there will always be a cause for everything. This means that the outcome of any interaction is a consequence of previous outcomes and the governing laws. Consequently, the future is in principle predictable down to the tiniest detail and for an unlimited time horizon. This implies the existence of a universal script, although we, most likely, will never be able to fully decipher it. A deterministic universe is like an extremely complex machine. It can appear unpredictable, but it cannot take any initiatives. Scientists are in a trajectory of ever-growing understanding of the governing laws of our universe down to ever-tiniest details. The so-far success of this endeavour inductively implies a deterministic universe.*

**Inductive implication is not evidence.**

 *If the elementary particles of a universe move deterministically,*

*then groups of particles (e.g. humans) will also move deterministically.*

**Proof?**

**I ask because your assertion is contradicted by science:**

[**https://en.wikipedia.org/wiki/Emergence**](https://en.wikipedia.org/wiki/Emergence)

**Perhaps you can point out where the scientists went wrong?**

**And while you’re in Wikiland, this also applies to your claim above:**

[**https://en.wikipedia.org/wiki/Formal\_fallacy**](https://en.wikipedia.org/wiki/Formal_fallacy)

**Focus on “Deductive” fallacy.**

*But what happens if we discover that the elementary particles can disobey the laws*

*(i.e. be completely unpredictable)?*

**That has already been discovered:**

[**https://en.wikipedia.org/wiki/Double-slit\_experiment**](https://en.wikipedia.org/wiki/Double-slit_experiment)

*Then there is no scenario and determinism does not hold.*

**And this is where you should have ended your essay.**

**More importantly, Determinism does not hold because ...**

**it has never produced one shred of evidence to indicate**

**that it is anything more than pseudoscience.**

*When we use the term randomness in our everyday speech, we usually refer to macroscopic, or apparent, randomness, e.g. the flip of a coin. In fact, if one knew the exact speed of the fingers and the density distribution of the coin and the velocity of every molecule of air in the room then he could apply the Newtonian laws to determine the result. This kind of randomness is not inherent. It is a result of our inability to gather and process the relevant information. Physicists, when using the term randomness, usually refer to inherent randomness, i.e. an interaction whose outcome is impossible to predict (other than by lucky guess) even with an unlimited amount of relevant information and processing power available. The result of random processes is not deducible by any kind of law or reasoning. Some processes in the sub-atomic scale have been considered as indications of the existence of randomness (Copenhagen Interpretation), but this remains a speculation.*

*It is equally valid to speculate that there could be just some missing pieces of information left to be discovered that will eventually eradicate our inability to predict (Ontological Interpretation).*

**Equally valid speculation is not evidence.**

**You sided against the scientific interpretation (Copenhagen)**

**and embraced the metaphysical interpretation (Ontology).**

**But what other option do you have when the science doesn’t go your way?**

[**https://en.wikipedia.org/wiki/Ontology**](https://en.wikipedia.org/wiki/Ontology)

**(From this point on, I skip a lot of his essay to keep this a reasonable length**

**and I only include those parts where we had a significant disagreement)**

 *Freedom
The state of an entity when this entity is not subject to limitations.*

*To the extent to which something is governed by laws, it is not free.*

*Consequently for something to be free, it must not be governed by laws,*

*thus it needs to be unpredictable.*

**You assume that unpredictable elements are not governed by laws.**

**That was an unfortunate assumption.**

**In the Double-slit experiment mentioned earlier, the unpredictable particles**

**that went through the slits were governed by many laws.**

*Free will
A problem arises when trying to define the free will of a human: one cannot be free
once he has a will. Will implies a preference of one outcome versus another.*

**That is provably false:**

**if given a choice between two items (where one has no preference) ...**

**one can still make a choice.**

*This implies a comparison which in turn implies a criterion which implies a law, i.e. no freedom.*

**Implications are not evidence. When do we get to see your evidence?**

*A person’s will limits this person. One could claim that the restrictions imposed by our own character should not count. In this case in order for our will to be free, it should simply suffice to not be influenced by our environment, which is impossible since humans can’t survive in a vacuum.*

**Why would environmental influence negate freedom of choice?**

**Why can’t choices be influenced?**

**How can we make a rational choice without considering influences?**

*Furthermore, for a social species it is hard to imagine not being influenced by other people as well. Every person is born with a large part of his personality preinstalled.*

**And your evidence for that assertion ... is?**

*The subsequent evolution of his will will depend on his already existent will and his environment, none of the two can be freely chosen.*

**Every time someone moves to a different neighborhood ...**

**they prove you wrong.**

*A person owns his will, but cannot choose it. To avoid the contradictions that are caused by the juxtaposition of the definitions of free and of will, the definition of free will to be used throughout the rest of this text and symbolized as FW will be the following: Free Will (FW): a person’s capacity to purposely shift the course of events towards the direction that fulfils their will. For the better part of the last millennium, scientists have been modelling the universe as a deterministic machine.*

**Which scientists and which models?**

*If the tiny molecules that comprise matter behave all according to some laws,*

*then causality trickles upwards unobstructed.*

**Matter is not necessarily comprised of molecules.**

**It is comprised of elementary particles.**

**Molecules are an emergent property of elementary particles.**

[**https://en.wikipedia.org/wiki/Emergence#Emergent\_properties\_and\_processes**](https://en.wikipedia.org/wiki/Emergence#Emergent_properties_and_processes)

**Since your statement is provably false,**

**the conclusion that you drew from it cannot be accepted as true.**

*FW in a non-deterministic universe
In the early 20th century, it was suggested that our sub-atomic particles could behave in a non-deterministic way (the Copenhagen interpretation of quantum mechanics). This means that there are interactions under which some elementary particles can travel or spin leftwards or rightwards and that the left or right outcome ought to be inherently random in order to best explain some experimental observations.*

*Every time such an interaction takes place, no laws apply.*

**Provably false:**

**when ANY interaction takes place, all the laws of physics apply, otherwise ...**

**we wouldn’t be able to do physics.**

*The universe must wait for the result, pick it up from there and go on with its laws.*

**After reading that sentence,**

**at least 10 ounces of cerebral spinal fluid leaked out of my ears.**

*Naturally, each outcome could, down the line, lead to a completely different universe. Furthermore, such interactions could take place trillions of times every second. Consequently, we can deduce that if there are indeed such inherently random interactions, then there can be no single scenario of the universe. In a non-deterministic universe one’s behavior can diverge from the course of things
(and subsequently change it) only through random (uncontrolled) interactions.*

**Earlier, you used the False Dichotomy fallacy to hide a third option (free will).**

**Realizing that some people might catch on to your strategy,**

**you now attempt to peremptorily dismiss the third option ...**

**by repeating an unprovable assertion.**

**This reminds me of Trump going into court in 60 cases**

**(trying to overturn the election)**

**and leaving humiliated 60 times**

**when he couldn’t offer one shred of proof.**

**Now we are over halfway through your essay**

**and everyone is still waiting for that one piece of proof.**

**Why won’t you produce it?**

 *Why do we feel that we have FW?
We can identify several possible mechanisms that lure us into FW:
1) Unpredictability.
2) Discovery vs creation.
3) Freedom vs ownership.
4) The elusive beginning of the domino.
5) The skin fallacy.
6) Frequent visits to a parallel mathematical universe.*

**(I listed his six mechanisms but deleted the rationalizations which followed each one. Why? Because not once in any of his six mechanisms was there a single shred of evidence offered to support his pseudoscientific claims).**

 *It took us thousands of years to figure out that the earth is round,*

**Many, many people had that figured out a long, long time ago.**

[**https://en.wikipedia.org/wiki/Spherical\_Earth**](https://en.wikipedia.org/wiki/Spherical_Earth)

*We have evolved on a piece of land where the ability to perceive the curvature of earth gives us no significant advantage in reproduction, thus as a species we did not waste resources on developing and maintaining a useless skill.*

**Knowledge, ANY knowledge, should never be considered a useless skill.**

 *What can we do?
We have established that the future is unsteerable.*

**Then why would anyone make any plans?**

**What would be the point if everything is already determined?**

*What we can do is evaluate the logical consistency of our speculations.*

**Speculations, implications, thought experiments, ...**

**WHERE IS THE EVIDENCE?**

*Moral accountability without FW
The deviation from a desired state of affairs is still no-one’s fault.*

*No-one can be blamed for it any more than a lion can be blamed for attacking a zoologist. That being said, every unfortunate outcome is a chance for readjustment.*

**If everything is predetermined, how is it possible to make readjustments?**

*After such an event it is logical for a society to try to reduce the possibilities of something similar reoccurring.*

**What is logical about trying to change things that have already been set?**

*In the case of a murderer, keeping him imprisoned will significantly reduce (to the best of our predictive power) the chances of him killing again, all the while signaling that killing someone incurs a substantial risk of reduced quality of life (i.e. imprisonment) which (to the best of our predictive power) will steer many potential murderers away from such actions. On the other hand, if someone kills due to an acute rage caused by a removable hematoma in the head, then all that is needed is to remove the hematoma. Society has nothing to gain by imprisoning this kind of murderer.*

*Conclusions*

*The concept of Free Will appears to be flawed.*

*The course of events cannot be consciously shifted.*

**That’s why I asked you, why you would even attempt to make readjustments**

**and reduce the possibilities of bad things repeating,**

**since, as you just admitted,**

**that the course of events cannot be consciously shifted.**

**You can either admit that you trapped yourself and destroyed your own position (something that almost never happens) or you can go into a long, complicated song-and-dance filled with desperate,** **sophistic machinations (the normal route that nearly everyone takes when trapped).**

*To the extent to which we have established a substantial predictive power and a clear value system, we can successfully dispense with FW.*

**I wouldn’t brag about a value system that holds no one accountable for their actions. We already had that once (in the days of cavemen and cavewomen) before we had laws. We were little different than the animals we hunted.**

**Feel free to return to that if you want.**

**I think the rest of us would prefer to work on improving our civilization.**

**from neo**

**Source**

[**https://triplenine.org/Portals/0/Docs/Vidya/pdf/Vidya402-403.pdf**](https://triplenine.org/Portals/0/Docs/Vidya/pdf/Vidya402-403.pdf)