

Big Questions Intermediate Topic Analysis

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Resolved: Science leaves no room for free will

The crux and essential question of this resolution will not be *if* science and free will interact, but rather, to *what extent* they interact and whether they are intrinsic to one other. The question the resolution poses is one that historically has been highly controversial. On one hand, this will provide each side with an adequate amount of evidence; on the other hand, you should set realistic expectations that if such battles have not been solved after all these years, it is highly unrealistic to expect to resolve the issue in an hour.

Resolutional definitions

As with almost any debate format, every word in the resolution has the potential to become a point of contestation. This will require both teams to have strategically worded definitions, sometimes differing from the common uses of the word in lieu of competitive advantages. In the sections below, you will find a mixture of common interpretations and not-so-common definitional interpretations.

“Science”

Given the abstract nature of the word “science”, as a debater you have two options when it comes to the way you want to define it. Either you could define it holistically, which has its strategic benefits for both sides. On the affirmative, defining science in a holistic way allows for the affirmative to prove at last one field of science interferes with the idea of free will. This becomes a double-edged sword as the negative’s job also is made easier. All the negative has to do in that instance is to prove that at least one field of science gives way to the idea of free will, or in that case, doesn’t explicitly prohibit the possibility of free will. This can force the affirmative to defend that every field of science directly prohibits (“leaves no room for”) free will.

“Leaves no room for”

While there is not a singular dictionary definition for this phrase, it will be a key component of the debate as it sets the burden for each side. For instance, if one were to define “leaves no room for” as a prohibition, the burden of the affirmative team would be to prove that science somehow prohibits any tracing of the idea of free will. Similarly, if “leaves no room for” was defined as “not accounting for something”, the affirmative burden would shift from having to prove the prohibiting power of science to the much easier burden of only having to prove that science simply doesn’t provide a justification for free will.

“Free Will”

Unlike the above words and phrases, interpretations of what free will is has a higher point of controversy. Dictionaries such as Merriam Webster define it as “freedom of humans to make choices that are not determined by prior causes or by divine intervention”. However, some highly respected academics such as those mentioned later in the analysis actually prefer to define “free will” as alternative phrases such as “voluntary acts”.

An analysis of contention level argumentation for both sides:

Below will be a brief list and explanation of easily accessible lines of argumentation. Some will be premised off the definitions mentioned above to better simulate the way in which definitions directly interact with contention level arguments.

Affirmative:

When affirming on this particular resolution, the best place to look for evidence on the contention level would be scientific studies or scientific reviews. Below, I have provided a piece of evidence from a psychological study performed earlier this year. It advances the argument that free will is simply an illusion used by the brain to trick itself into thinking that we have control of our lives. The reason is that humans possess a need to feel in control of their life to maintain sanity.

The newest psychological study proves that free will is simply an illusion created as the brain tricks itself to fulfill the need of feeling in-control.

(Andrew Griffin, Independent, 4-1-2016, [Scientists might just have proved that free will is an illusion](#), 10-6-2016)
NJW

“Humans are convinced that they make conscious choices as they live their lives. But instead it may be that the brain just convinces itself that it made a free choice from the available options after the decision is made. The idea was tested out by tricking subjects into believing that they had made a choice before the consequences of that choice could actually be seen. **In the test, people were made to believe that they had taken a decision using free will – even though that was impossible. The idea that human beings trick themselves into believing in free will was laid out in a paper by psychologists Dan Wegner and Thalia Wheatley nearly 20 years ago.** They proposed **the feeling of wanting to do something was real, but there may be no connection between the feeling and actually doing it. The new study builds on that work and says that the brain rewrites history when it makes its choices, changing our memories so that we believe we wanted to do something before it happened.”**

While this evidence is pretty straight forward, I would still urge the reading of the full article and/or study for the purposes of in-round explanation.

In terms of evidence quality and comparison, given that most of the affirmative’s evidence will come from scientific studies, perceptually, the affirmative may have the upper hand.

However, the following evidence takes on the other main approach to disproving free will: the cause and effect theory. Essentially, most of this theory is predicated off of a study done in 1980 by a physiologist by the name of Benjamin Libet. The study attempted to prove that the electricity/stimulus that causes another neuron to fire (causing an action) precedes the human’s conscious awareness of their will to do said action. The implication of this finding is that the brain/body has already prepared to take an action before the human fully knows that it is going to do the action. This theory is the primary argument of Sam Harris, whose lecture you will find a link to further along in the analysis.

Life is a game of cause and effect. The brain and the actions it conducts are nothing more than stimulated neurons firing like pistons. We are in no more control of the daily acts we commit than the control we have over our heartbeat.

(Stephen Cave, Atlantic, 05-2016, [There’s No Such Thing as Free Will](#), 10-6-2016) NJW

“Many scientists say that the American physiologist Benjamin Libet demonstrated in the 1980s that we have no free will. **It was already known that electrical activity builds up in a person’s brain before she, for example, moves her hand;** Libet showed that this buildup occurs before the person consciously makes a decision to move. **The conscious experience of deciding to act, which we usually associate with free will, appears to be an add-on, a post hoc reconstruction of events that occurs after the brain has already set the act in motion.** The 20th-century nature-nurture debate prepared us to think of ourselves as shaped by influences beyond our control. But it left some room, at least in the popular imagination, for the possibility that we could overcome our circumstances or our genes to become the author of our own destiny. **The challenge posed by neuroscience is more radical: It describes the brain as a physical system like any other, and suggests that we no more will it to operate in a**

particular way than we will our heart to beat. The contemporary scientific image of human behavior is one of neurons firing, causing other neurons to fire, causing our thoughts and deeds, in an unbroken chain that stretches back to our birth and beyond. In principle, we are therefore completely predictable. If we could understand any individual's brain architecture and chemistry well enough, we could, in theory, predict that individual's response to any given stimulus with 100 percent accuracy."

Negative:

When negating this resolution, your focus should not be grand experiments but rather the acknowledgment of simple inconsistencies and flaws in the experiments cited by the affirmative. Below is a piece of evidence doing just that by indicting the logical inconsistencies in the commonly cited Libet experiment.

The Libet experiment is nothing more than an oversimplification providing no concrete justification for the absence of decision-making in brain activity.

(Mahir S. Ozdemir, Ph.D., Creativity Post, 1-27-2015, [A Scientist's Defense of Free Will](#), 10-7-2016) NJW

"Another fundamental aspect which is widely overlooked in these studies is that they provide no proof whatsoever that brain activity could happen without conscious decision taking place. This is a critical point particularly because neural activity precedes the conscious awareness of the decision corresponding to it. Understandably, it is not surprising that brain activity that takes place before the will has been historically thought as the source that leads to behavior. **Anything preceding an effect must be a cause. Not the tiniest shred of evidence exists, however, in favor of the idea that brain activity can occur without the corresponding decision-making. This is an argument piercing the veil of the fashionable you-have-no-free-will dogma that we are being told with religious certainty and confidence. A methodological flaw that strikes me as odd is that these experiments always involve a test subject fully aware of the choice they are going to make. Is it surprising that our brain would prepare for this decision? In real life, as opposed to the simple, binary decisions of Libet, we are faced with many complex situations where we have not a clue of the options available to us beforehand. The volunteers in the experiment had no choice other than the timing of their actions.** They could not decide among different action alternatives as the action itself was predetermined. But more than that, in simple actions like flexing your wrist only procedural memory is involved, whereas in typical free will situations, requiring a deeper assessment of the current situation in tandem with memories of the past experiences in our cognitive toolkit, episodic memory plays a substantial role. **So, it's very much doubtful that the experiment is telling us something about free will.** If anything, **the Libet experiment is nothing more than a very crude oversimplification which is very difficult to justify in terms of everyday situations** that we all encounter in real world. Instead, monitoring brain activity as we go around making more complex choices can be more interesting but this is no trivial task to accomplish."

In addition to acknowledging inconsistencies, it is important to remember that as the negative, your only job is to prove that there is at least a possibility of free will. Through careful reading of affirmative pieces of evidence, sometimes these slight possibilities are present. Such can be seen in the last affirmative piece of evidence provided above. If just reading the underlined parts of the evidence, one would easily believe that there is no point of contestation or even a shadow of possibility of free will with such an opinionated author. However, if you read the full article, which is always advised, you would find a few sentences where the author leaves the possibility for free will open.

(Stephen Cave, Atlantic, 05-2016, [There's No Such Thing as Free Will](#), 10-6-2016) NJW

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hoc reconstruction of events that occurs after the brain has already set the act in motion. **The 20th-century nature-nurture debate prepared us to think of ourselves as shaped by influences beyond our control. But it left some room, at least in the popular imagination, for the possibility that we could overcome our circumstances or our genes to become the author of our own destiny.** The challenge posed by neuroscience is more radical: It describes the brain as a physical system like any other, and suggests that we no more will it to operate in a particular way than we will our heart to beat. The contemporary scientific image of human behavior is one of neurons firing, causing other neurons to fire, causing our thoughts and deeds, in an unbroken chain that stretches back to our birth and beyond. In principle, we are therefore completely predictable. If we could understand any individual's brain architecture and chemistry well enough, we could, in theory, predict that individual's response to any given stimulus with 100 percent accuracy."

Now even though this doesn't suddenly change the authors belief in determinism/Cause and Effect, it debatably grants the negative the necessary possibility of free will needed to disprove the resolution. Additionally, whether or not this is sufficient enough to win the negative the round will ultimately come down to the definitions won. If the negative win that's the affirmative has the burden/obligation to prove that science necessarily prohibits any possibility of free will (even imaginative) then such argument could be critical.

A few additional videographic resources

The following will feature a list of videos mainly from academics in the field discussing what will essentially be the core of the topic. In fact, some of their exchanges will be what ends up playing out in round. With debate being the academic activity that it is, watching experts in the field explain the academic sides of the resolution allows for debaters to see the larger structures of the arguments in which they will soon be engaging in, hopefully leading to more academic progression and enrichment.

[This video](#) is a speech and presentation given by Dr. Daniel Dennett of Tufts University at the Santa Fe Institute. His presentation is aimed at deconstructing the idea that free will is an illusion. He instead uses the study of cognitive science. His kick starts his argument with an interactive demonstration with the audience. In this demonstration, he asked the audience to start waving their right hand and when most of them do, he begins to ask why they did such action, labeling it a voluntary act. Inferring his use of "voluntary acts" as seemingly a parallel to free will, Dr. Dennett suggest that if someone were to tell the audience that voluntary acts are an illusion, they (the audience) would easily jump to point out their flawed claim and explain that they just conducted one. Dr. Dennett's argumentative presentation largely goes in the direction toward the negative's line of argumentation. While he raises great points and makes very educated arguments, it is important to remember that his lecture is given and aimed at an undergrad to graduate audience which warrants his level of assumed knowledge and elevated vocabulary.

[In this video](#), 49-year-old author, philosopher, and neuroscientist Samuel Benjamin Harris offers a counter perspective that flows to the affirmative side. "Sam", as he prefers to be called, is speaking at the annual Festival of Dangerous Ideas held at the Sydney Opera House. In the beginning of his lecture he preemptively addresses the most common schools of thought that warrant beliefs in free will, to which he quickly and efficiently dispels. The foundation of belief in free will can be separated into two groups according to Harris:

The first is that we somehow possess the free will to think and act differently than we did in the past. The second is that we are the conscious source of our actions and desires. To counter and explain his point of difference, Sam then presents the analogy of your "basic murderer". Looking at the murderer's last kill, according to Dr. Harris, believers in free will would make the argument that he made the conscious choice to kill someone. However, under Harris' argument that we live in a society based on cause and effect, the murderer killing his last victim was not out of pure free will, but rather it was an effect of a long chain of events and actions (causes) that happened prior to the actual act of killing. The prior "causes", while not necessarily important in terms of details, could include a less than ideal childhood which lead to an unhappy child and breed the conditions for the brain configurations of a sociopath to form, thus causing some type of irrational hatred and drive to kill.

It is important to note that Sam Harris' lecture uses wording and the very typical debate argument format of claims followed by warrants and impacts, which make it easy to transcribe and form into pieces of evidence. The style he engages in while speaking will prove very fruitful for debaters not only in constructive speeches but also in the later rebuttals and question segments where the Big Questions format allows for more direct line-by-line clash of arguments.