

The Death of Free Will

The theoretical arguments and experimental evidence against it

Skepticamp

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Why do we think we have free will?

- *Feeling* of agency/volition seems so strong
- We grow up believing in it
- It is embedded in our language (‘choose’, ‘decide’, ‘judge’)
- Common ideas of morality, crime, and punishment depend upon it
- Belief in gods depends upon it

Cartesian dualism

Rene Descartes (1596-1650): “I think, therefore I am”

- Who/what is this ‘I’ that ‘thinks’?
- Belief that somewhere inside our brain is some kind of sophisticated control room where information streams in from everywhere via our senses and from the prior knowledge stored in our brains, and that in this room is some *disembodied entity*, the real ‘I’, that views all this information, *decides what to do*, and then sends out commands that are executed by the body
- Philosopher Gilbert Ryle poured scorn on this idea of a personal, independently existing, conscious, non-material entity that we call the ‘mind’, derisively calling it “The Ghost in the Machine”

There is no ‘Ghost in the Machine’

- Our thoughts and actions are determined by our brains that are the product of our genes (G), environment (E), and random stochastic (S) processes that function *unconsciously* under the influence of natural laws and give instructions to the motor neurons as well as create our consciousness.

Unconscious (GES) → motor neurons → action

Unconscious (GES) → conscious mind → decision *before* action

Since we cannot control the unconscious working of the brain, we have no free will

What is meant by ‘free’ will?

- Free will is the belief in a component to biological behavior that is something more than the *unavoidable* consequences of GES. (Anthony Cashmore)
- To believe in free will requires us to believe in the existence of a *non-material* entity that can change the causal behavior of the material entities that make up our brains, violating the laws of physics and biology.
- Neuroscience supports the idea that our consciousness and sense of free will are *epiphenomena*, the products of the firing of the neurons that make up the brain. They are due to purely materialistic causes, nothing more. (Robert Sapolsky, *Determined: Science of Life Without Free Will* (2025))

Experimental evidence against free will

Early experiments used electroencephalography:

- Grey Walter (1963)
- Benjamin Libet and others (1983 and later)

The *conscious* decision to act (W) occurs about 0.20 s *before* the action but about 0.35 s *after* the *Readiness Potential* (RP) in the *unconscious* part of our brain gets activated and initiates the actions

Recent neuroscience (2007 and later) uses fMRI and the results support the earlier work

- fMRI data used by sophisticated computer programs to detect predictive signal *pattern* activity in the *Supplementary Motor Area* (SMA) area of the brain
- Decisions can occur anywhere up to 10 s *before* the person becomes aware of having made them

Inferences from experiments

Unconscious (GES) does two things:

- *Unconscious* (GES) → RP/SMA → motor neurons → action
- *Unconscious* (GES) → conscious decision (W)

W occurs *after* RP/SMA activated but *before* action. This leads to the *illusion* of volition or free will

What does lack of free will say about our sense of self?

- ‘I’ am a *unitary* system, not a dualistic one, made up of material objects obeying the laws of nature that function unconsciously and make decisions. Although I may *feel* that there is another ‘I’ within my body freely making decisions, this perception is an illusion.
- The *sensory experience* of choosing is not a fiction. But it occurs *after* the decision has been made. It is more accurate to say “The decision was made by me” than “I made the decision”.
- Because of the stochastic (S) element in GES, the lack of free will does not mean that the world (or our behavior) is deterministic in the classical sense.

Problems with free will explanations

“Whereas much is written claiming to provide an explanation for free will, such writings are invariably lacking any hint of molecular details concerning mechanisms. Also, it is often suggested that individuals are free to choose and modify their environment and that, in this respect, they control their destiny. This argument misses the simple but crucial point that any action, as “free” as it may appear, simply reflects the genetics of the organism and the environmental history, right up to some fraction of a microsecond before any action.”

“The reality is, not only do we have no more free will than a fly or a bacterium, in actuality we have no more free will than a bowl of sugar. The laws of nature are uniform throughout, and these laws do not accommodate the concept of free will.” (Anthony Cashmore)

Consequences

- Most things will not change. We will use the same language of free will.
- The major *practical* change is how we view morality. We would not make judgments about good or bad *people* but just good or bad *actions*.
- What the elimination of free will does is remove the element of *moral* judgment from punishment. The sole reason for ‘punishing’ people is to *prevent the commission of future crimes*, not to make moral statements about the culprit’s character or to seek retribution and vengeance.

Medical quarantine model for punishment

Derk Pereboom

How we treat people who are ill

- Some people have a medical malady that makes them infectious or dangerous to others
- We recognize that it is not their fault and do not punish them for their actions
- To protect others, it is acceptable to constrain the freedom of such people
- We should constrain the person the *absolute minimal* amount needed for the purpose of deterrence and to protect everyone (including themselves) from harm, and *no more*

‘Punishment’ for ‘criminal’ acts should follow the same model

- Trials would become simpler, only used to decide if the person committed the act. Motive or mental state of perpetrator would play no part.

The need to believe in free will is strong

- Denying it will be strongly resisted since sense of volition/free will is so deeply held
- Counter-evidence rarely persuades true believers of *anything*
- Theoretical arguments (such as absence of any mechanism) are more likely to succeed in the case of free will

Isaac Beshevis Singer

“We must believe in free will. We have no choice.”

Questions?