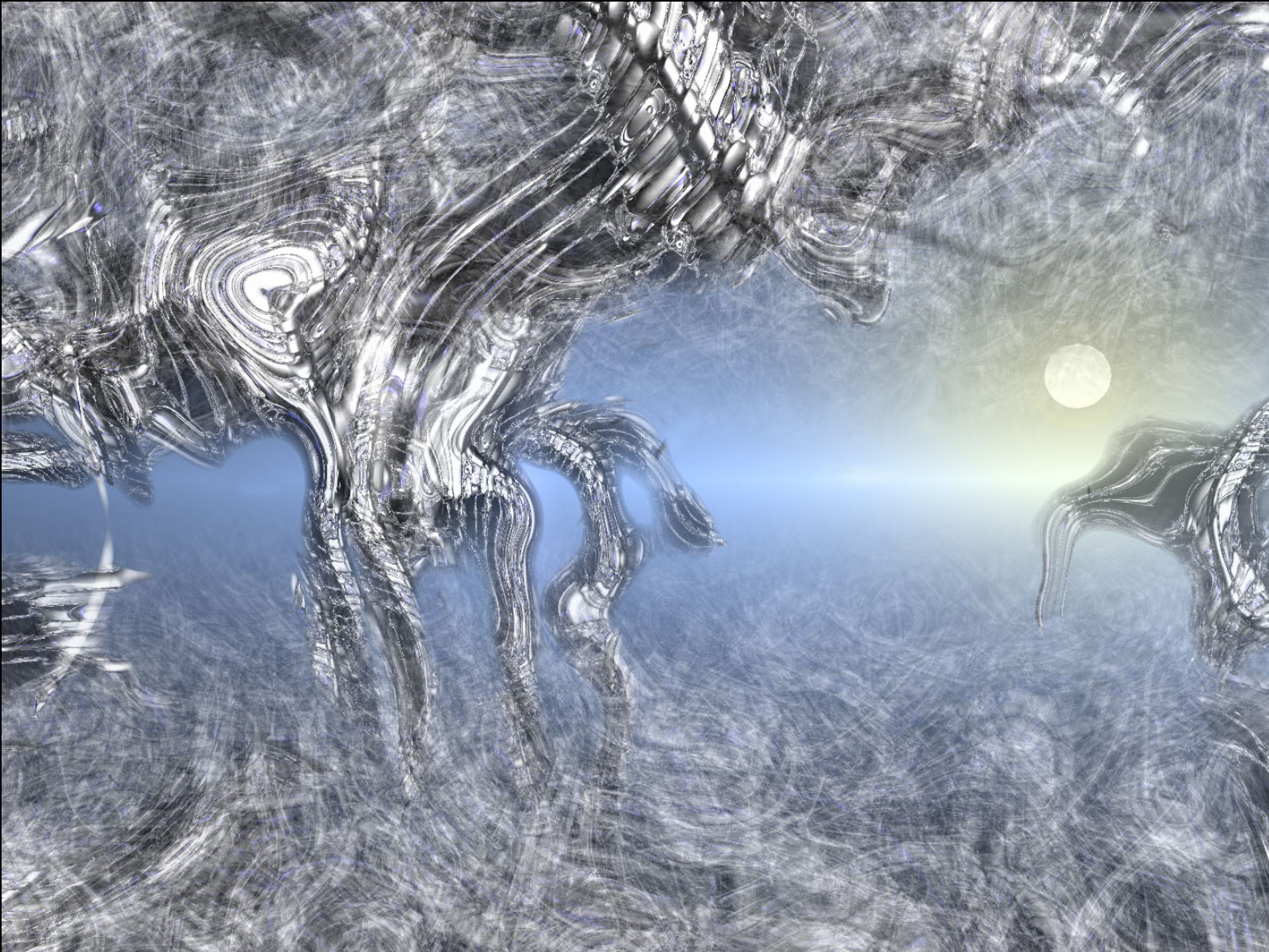


Free will

a OnePageBook™



Do you really have a choice?

Geir Isene

You either have potential free will, or you don't. Either there exists a situation where you can freely choose, or there does not.

By "will" we mean "the mental faculty by which one deliberately chooses or decides upon a course of action"¹. For the will to be truly free, a choice must be unrestricted by past, present or future conditions. Anything less would be called "restricted" will. Free will implies the possibility to choose without restriction. While "will" could be restricted to any degree, "free will" can only be free if it is unrestricted. If a choice is to a degree restricted, then beyond the restrictions present in a situation, there must be some unrestricted ability to choose for there to be "free will".

The physical universe is governed by the laws of physics, whether they dictate determinism or randomness. Free will cannot be dictated and is therefore not subject to the laws of physics. Free will is not part of the physical universe, but impinges upon it. It may very well be that which determines whether matter behaves like particles or waves – i.e. it may be what "collapses the wave function"². This could be how *will* impinges upon or creates the universe.

An event can be caused or not caused. If it is not caused, it simply follows from earlier events or happens by chance; or a combination. If an event is caused, it is the result of a deliberate choice. A caused event is created through free will.

Another angle is to start with Kurt Gödel's Incompleteness Theorems³. They conclude that no system of non-trivial axioms can be both consistent and complete. The laws of the physical universe are built upon sets of non-trivial axioms – thus they cannot be both consistent and complete. Observation strongly implies that the universe is consistent, indicating that the physical universe or universes, and all the laws of all physics cannot be complete. There must be something outside the realm of physics for the realm of physics to be consistent.

Ludwig Wittgenstein⁴ noted, as a corollary to Gödel's theorems, that all the facts of science are not enough to understand the world's meaning, because "The meaning of the world does not reside in the world"⁵.

It follows that free will cannot rise from physics. Free will cannot emerge from artificial intelligence. The difference between a robot and an entity possessing free will to any extent is responsibility. Aristotle outlined the essence of responsibility – a definition that remains the basis for accountability in our judicial systems⁶:

"Aristotle's discussion is devoted to spelling out the conditions under which it is appropriate to hold a moral agent blameworthy or praiseworthy for some particular action or trait. His general proposal is that one is an apt candidate for praise or blame if and only if the action and/or disposition is voluntary. According to Aristotle, a voluntary action or trait has two distinctive features. First, there is a control condition: the action or trait must have its origin in the agent. That is, it must be up to the agent whether to perform that action or possess the trait – it cannot be compelled externally. Second, Aristotle proposes an epistemic condition: the agent must be aware of what it is she is doing or bringing about."

There is no accountability for actions if there is no will behind them. There is no one to be held responsible if the person had no choice, no free will.

If free will exists, then we can trace responsibility for actions to conscious choices – then artificial intelligence can never replace a free-will entity. According to Gödel's Incompleteness Theorems, free will must lie outside the realm of physics for the physical universe to remain consistent. It is not in the brain. It can never be created. It can never die.

If free will does not exist, then there is no accountability for actions – then you can be fully replaced by artificial intelligence. But the question remains: what lies outside the realm of physics to account for the consistency observed in the physical universe? Alternatively, there may be unexplainable physical inconsistencies that science has yet to observe.

Do you choose to believe in free will? That may or may not be your choice – depending on whether free will exists.

¹Definition of "will": <http://www.thefreedictionary.com/will>

²The Double-slit experiment: https://en.wikipedia.org/wiki/Double-slit_experiment

³Gödel's Incompleteness Theorems: https://en.wikipedia.org/wiki/G%C3%B6del%27s_incompleteness_theorems

⁴Ludwig Wittgenstein: <https://en.wikipedia.org/wiki/Wittgenstein>

⁵An easy read: "Logicomix" by Apostolos Doxiadis and Christos Papadimitriou: <https://en.wikipedia.org/wiki/Logicomix>

⁶"Moral Responsibility" by Andrew Eshleman: <http://plato.stanford.edu/entries/moral-responsibility/>

This OnePageBook™ tackles the question of whether free will can exist.

This book can help you answer a fundamental question: Do you really have a choice?

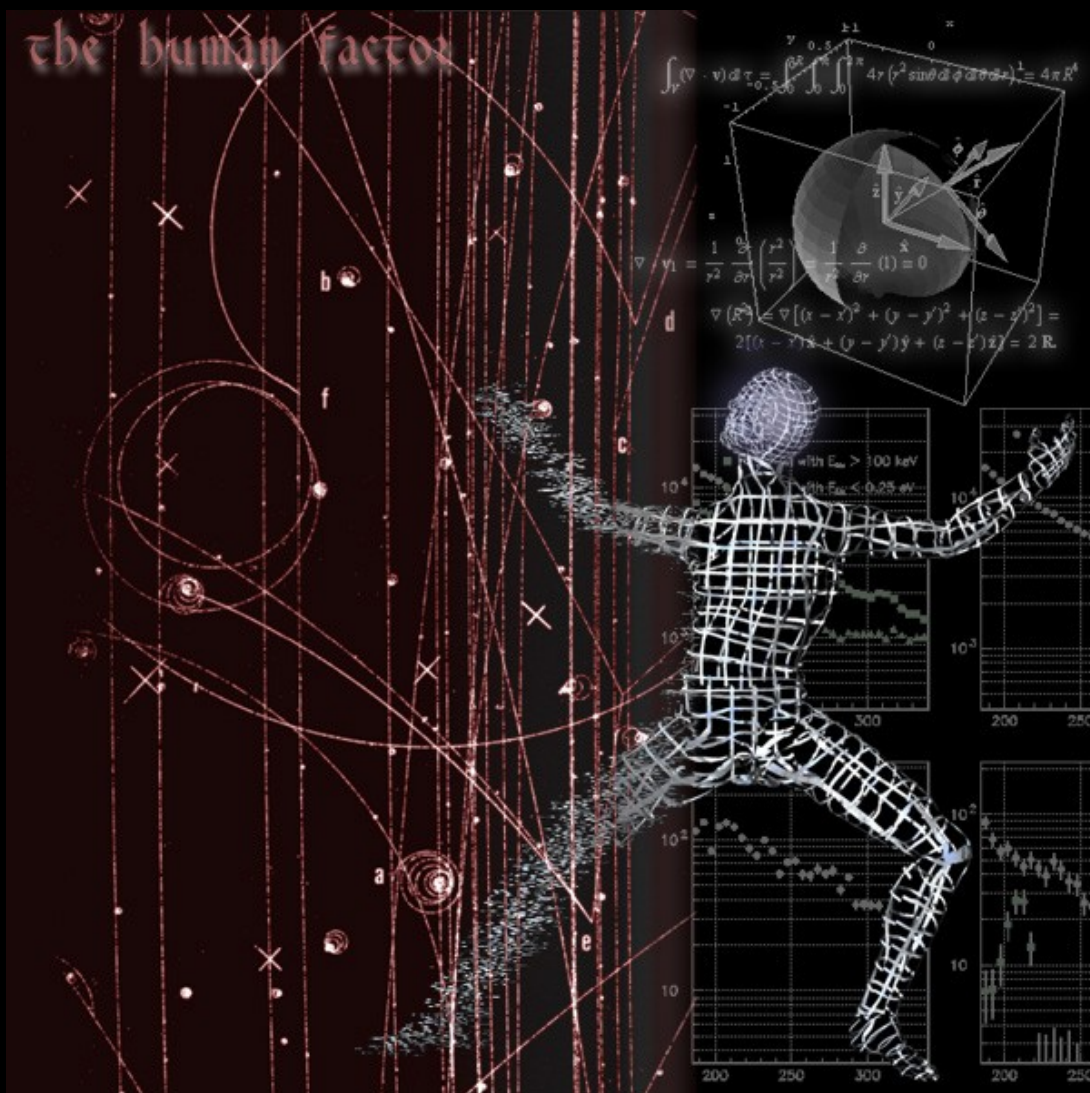
If you do possess free will, how will you exercise that potential?

If you do not possess free will, then you reading this book was not a choice you made.

The publisher, "Å" (A-Circle AS, www.acircle.no) carries the slogan, "Boosting performance". The company helps teams and individuals to higher performance and to reach their potential.

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Thanks to all contributors discussing free will on the author's blogs since 2009.



"The meaning of the world does not reside in the world" (Ludwig Wittgenstein)

