Free Will Meets Science

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While TEG argues from "outside-in", this paper argues in the opposite direction, starting with "do you believe in free will?"

1 Premises

1. Every physical event is fixed by the laws, or the laws fix only its odds.
2. Our acts are physical events.
3. A physical thing fixes only what its state fixes.
4. Someone fixes an act that the laws and the past leave open.

The first three premises are what science agrees on. The first says that the laws settle an event fully, or give only its odds, such as the decay of an atom. The second says that lifting an arm is a physical event... nerves and muscles. The third says that a stone or a brain does only what its state and the laws make it do. Premise 4 is free will, taken as given: someone settles an act that the laws and the past do not settle.

2 What follows

1. The chooser is no physical thing.
2. Choices fall where laws fix only the odds.

Take what fixes such an act. If that were a physical thing, premise 3 would make the laws and the past fix the act. Premise 4 says they do not. So the chooser is no physical thing. The act is still a physical event (by premise 2). The laws do not fix it, so by premise 1 they fix only its odds.

3 Then add the third paper

1. What is aware has no properties [3].
2. The ground has no properties, and only a property tells two things apart [1].
3. A chooser is aware of a line.

And so:

1. The chooser is the ground.

2. Your choice and mine come from one chooser.

The third premise is the bridge. To choose is to will one outcome over another. Nobody wills what they are not aware of. A line is kept commitments that make up one individual [3]. The chooser is aware and has no properties. The ground has none either. Two things with no properties cannot be told apart. So the chooser is the ground.

4 What the check also shows

- The premises do not contradict each other: a small test world makes all of them true (as verified with the Lean proofer).
- Premise 3 of the first list is needed, or else a physical thing can be the chooser.
- The words "leave open" in premise 4 are needed. Without them, a body that fixes a determined act fits every premise. That is the compatibilist's free will.
- Read chance as "nothing picks the outcome", and free will is ruled out at once. Physics says only that the laws leave the outcome open.
- The bridge is needed. Without it, a soul with properties of its own can be the chooser.

A The argument in logic

The premises and conclusions of this note in notation.[1] Here a, b are things, e, f are events and L are lines of kept commitments. $\mathrm{P}(a)$: a is a physical thing. $\mathrm{V}(e)$: e is a physical event. $\mathrm{A}(e)$: e is an act. $\mathrm{D}(e)$: the laws and the past fix the outcome of e. $\mathrm{O}(e)$: the laws fix only the odds of e. $\mathrm{F}(a, e)$: a fixes the outcome of e. $\mathrm{E}(a)$: a has properties. $\mathrm{W}(a, L)$: a is aware of L. g: the ground. $\mathrm{Ch}(a, e) :\equiv \mathrm{A}(e) \wedge \mathrm{F}(a, e) \wedge \neg \mathrm{D}(e)$: a chooses e.

[1] Each conclusion has been checked from the premises with the Lean 4 proof assistant, with no added axioms. The file is at https://isene.com/freewill/FreeWillAndScience.lean.

Premises

Science 1	$\forall e \left[\mathrm{V}(e) \to \mathrm{D}(e) \lor \mathrm{O}(e)\right]$
Science 2	$\forall e \left[\mathrm{A}(e) \to \mathrm{V}(e)\right]$
Science 3	$\forall a \, \forall e \left[\mathrm{P}(a) \land \mathrm{F}(a, e) \to \mathrm{D}(e)\right]$
Free will	$\exists a \, \exists e \, \mathrm{Ch}(a, e)$

Conclusions

No physical chooser	$\forall a \, \forall e \left[\mathrm{Ch}(a, e) \to \neg \mathrm{P}(a)\right]$
Only the odds	$\forall a \, \forall e \left[\mathrm{Ch}(a, e) \to \mathrm{O}(e)\right]$

Added premises

From the third paper	$\forall a \, \forall L \left[\mathrm{W}(a, L) \to \neg \mathrm{E}(a)\right]$
From the first paper	$\neg \mathrm{E}(g) \ \land \ \forall a \, \forall b \left[\neg \mathrm{E}(a) \land \neg \mathrm{E}(b) \to a = b\right]$
The bridge	$\forall a \, \forall e \left[\mathrm{Ch}(a, e) \to \exists L \, \mathrm{W}(a, L)\right]$

Conclusions

The chooser is the ground	$\forall a \, \forall e \left[\mathrm{Ch}(a, e) \to a = g\right]$
One chooser	$\forall a \, \forall b \, \forall e \, \forall f \left[\mathrm{Ch}(a, e) \land \mathrm{Ch}(b, f) \to a = b\right]$

References

[1] Isene, G. (2026). "Why Existence Cannot Ground Itself". First paper in this series.

[2] Isene, G. (2026). "The Ground Must Choose: Free Will as Trans-Existential Ground". Second paper in this series.

[3] Isene, G. (2026). "What Is Aware Is the Ground". Third paper in this series.