

"Phileas Fogg and the Temporal Paradox: Relativity Without Relativity and Without Quantum Mechanics, Described by Jules Verne"



◇ Introduction

Can a 19th-century novel conceal a physical paradox worthy of Einstein?

Fogg's journey around the world reveals how the choice of direction not only changes the path... it alters time itself.

Without invoking relativity or quantum mechanics, **Jules Verne** shows us how time can fold under a narrative decision.

◇ Central Idea

- The decision made by Fogg — to travel in a rotational or counter-rotational direction relative to Earth's rotation — is not trivial: it determines whether he arrives a day earlier or a day later.
 - Before he chooses, both futures are possible. But once the choice is made, his timeline is defined. There is no superposition of states as in quantum mechanics, but there is a bifurcation that is resolved by **action** — by the **primordial choice**.
 - This idea requires neither formal relativity nor quantum mechanics, but breathes the **spirit of both**.
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⊗ Rotational Path: One Day Late

If Phileas Fogg chooses to travel **with the Earth's rotation** (eastward), he crosses time zones **ahead of the sun**.

Each day, he "loses" a fraction of time as he moves into later time zones, making his days seem shorter from the local perspective.

However, on **returning to London**, he discovers that **one day has been added** to his calendar relative to local time.

From his perspective, he has completed 80 days of travel, but London counts 81.

⊗ Counter-Rotational Path: One Day Early

If he travels **against the Earth's rotation** (westward), as he does in the novel, he moves **behind the sun**, and each time zone he crosses makes his days appear longer.

Unaware of this cumulative effect, Fogg believes he has lost the wager — until he realizes that he has, in fact, **gained a day**.

London recognizes **one fewer day** than he has counted. Thus, the paradox resolves in his favor: **he arrives a day early and wins the bet.**

✦ Key Insight

"The timeline is not in a superposition of states.
Its path is defined by a single, decisive choice."

This statement captures the essence of the paradox: it's not about parallel realities or uncertainty, but about how **action shapes the unfolding of time** — a narrative that anticipates fundamental concepts in modern physics.

🔍 Final Reflection

Sometimes, **physics lives in fiction.**

And decisions that seem like mere plot devices unveil paradoxes that **shake the foundations of spacetime.**

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