

The Liar Paradox Reveals the Limits of Logic

That is to say, from the initial statement “I am lying,” through a logical inference this statement is turned into a truth.

Or in a logical system, suppose we assign a value to the statement “I am lying” (meaning the person is lying). We assume lying, being false, has the value 0; then through logical transformation within the system (inferring from the context of “lying” in the statement), it becomes a true statement (with the value 1).

In formula form, it looks like this:

+ The original statement (essentially a lie): Value 0

+ Logical inference: Value 1

+ Result: the original statement is true: Value 1

$\Rightarrow 0 + 1 = 1$. This is in fact a truth, not a paradox at all.

Thus, there is no real paradox here. It is precisely the logical transformation (the logical system) that turns it into a paradox.

=> This is the limit of Logic.

Reflecting on the proof of Gödel's theorem:

Gödel's theorem is constructed using the very formal logical system that is inherently incomplete (it is only strong enough to express arithmetic, but not complete).

In other words, the tool is only for expression, not for proving incompleteness.

Thus, proving the theorem is merely a circular loop and does not reveal anything fundamentally new.

Truth exists independently and is immutable ($0 + 1 = 1$). What humanity calls a “paradox” or “incompleteness” merely reflects the limitations of the logical systems humans are using, not the incompleteness of truth itself.

Truth is inherently complete; it is human logical systems that are insufficient, which gives rise to paradoxes.

These are just a few personal reflections on Gödel's theorem that I wish to share based on my own contemplations. Thank you for reading these lines.