

A meta-paradox

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1 Overview

Paradoxes are statements that are self-contradicting, or contradict intuition. A classification of paradoxes is due to W. V. O. Quine[1]:

Definition 1 (*Veridical paradox*) *A paradox is veridical if it appears counter-intuitive to human reasoning, but is provably true.*

An example of a veridical paradox is the hydrological paradox, stating that e.g. the force exercised by water on a dam is only dependend upon the height of the water, but not upon how wide the dam, or the water behind is.

Definition 2 (*Falsidical paradox*) *A paradox is called falsidical if the statement made is false, but appears contradictory due to an error in the proof.*

The liar's paradox belongs to this class: the sentence "this sentence is false" is self-contradicting, because if it were false, its statement would be correct, falsifying the original meaning. Finally, there is a class of paradoxes that illustrates the limitations of our reasoning:

Definition 3 (*Antinomy*) *An antinomy is a self-contradicting statement that is derived by properly conducting the proof, but evades the grasp of ways of reasoning.*

2 Meta-paradoxes

I argue that paradoxes are in fact no paradoxes – this statement being a (meta-) paradox itself.

Theorem 1 (*Meta-paradox*) *All paradoxes are in fact no paradoxes.*

Consider following arguments. The above meta-paradox is falsidical because it on one hand assumes "most paradoxes" to be veridical paradoxes: paradoxes that only appear to be self-contradictive, but have a sound, non-intuitive explanation. On the other hand, it assumes that the paradoxes from "no paradoxes"

to be falsidical, being ones that arise due to false reasoning or due to being an antinomy. This false comparison is falsidical.

Upon closer inspection, the meta-paradox could be argued to not be a paradox, because it refers ambiguously to veridical and falsidical paradoxes, just giving the *impression* to be paradoxical. But wouldn't it then be a veridical paradox? As a further inquiry into whether the meta-paradoxon is veridical, the intuition of the reader is asked: Does "paradoxes are no paradoxes" sound self-contradictive or non-intuitive?

Finally, the meta-paradox is self-referential. Clearly, as it refers to all paradoxes, it must refer to itself, but would then invalidate all paradoxes not to be paradoxes, invalidating its first claim.

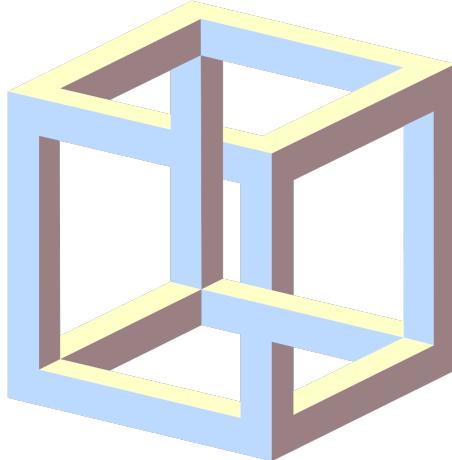


Figure 1: The impossible cube is often used to illustrate paradoxes because it contradicts intuition of most humans and is possible to draw, but impossible to construct three-dimensionally as depicted. (Source: 4C commonswiki, Wikimedia Commons)

References

- [1] W. V. O. Quine, “The ways of paradox, and other essays,” 1966.