



Necessity, Analyticity & A priority

**Dr Maarten Steenhagen
Michaelmas 2018
Lecture 1**

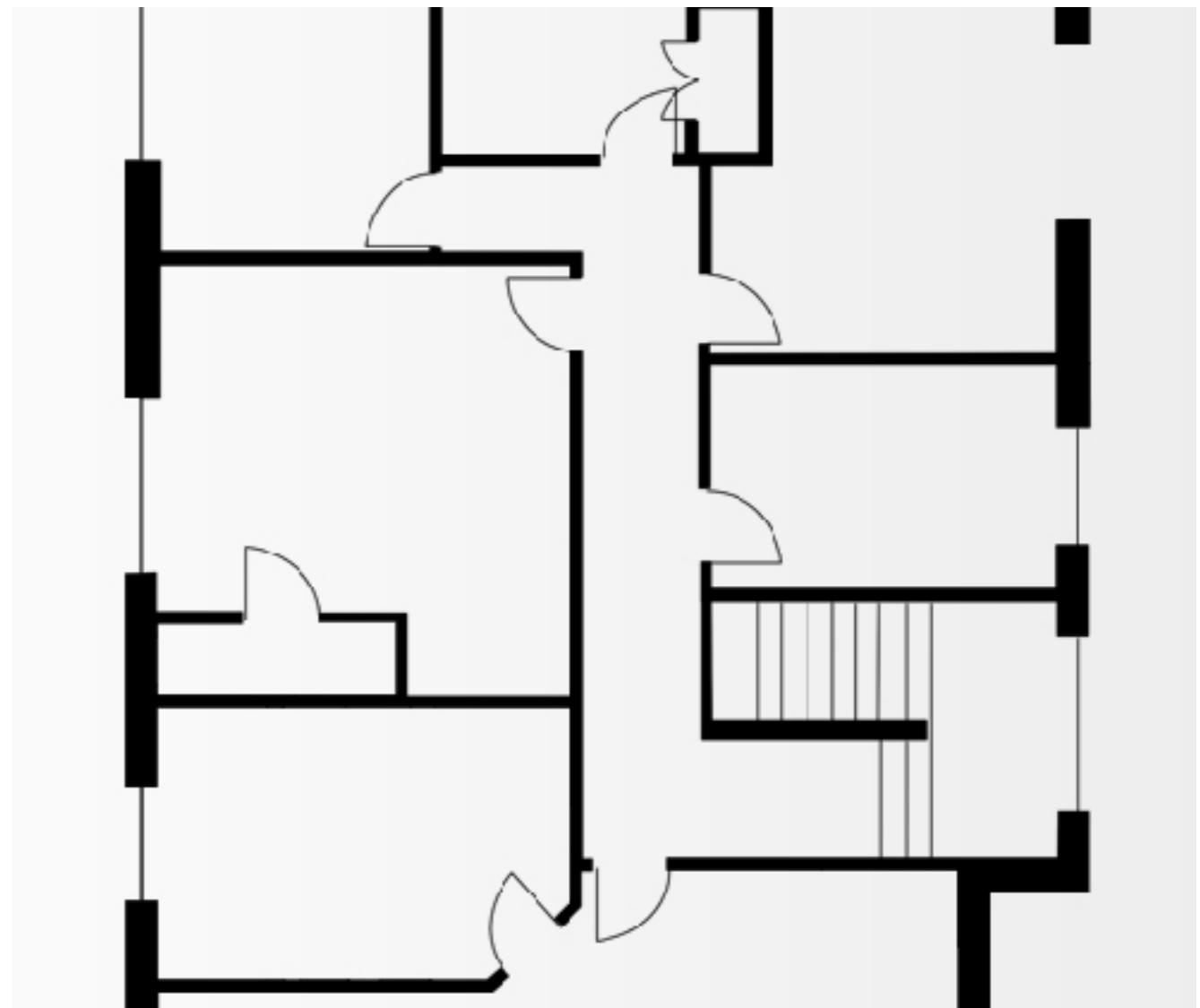
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Outline of these lectures

1. The concept and varieties of necessity
2. Analyticity as explanation for necessity, and knowledge of necessary truths
3. The possibility of synthetic necessary truths and ‘rigid designation’
4. The possibility of contingent a priori truths and the significance of the analytic/synthetic distinction



Necessity, Analyticity, A Priority

Sun, Oct 7, 2018 • Part 1a, Meaning, Michaelmas 2018



Course description

This course will introduce several key distinctions: analytic / synthetic; a priori / a posteriori; and necessary / contingent. It will cover the syllabus materials on Analyticity, A Priority, and Necessity (the first section of Paper 3, Meaning). Feel free to contact me at ms2416@cam.ac.uk if you have any suggestions, questions, or comments about this course.

General reading

An interesting and readable introductory textbook is: Sybil Wolfram (1989), *Philosophical Logic: An Introduction*, Oxford: Routledge.

Online resources

Outlines and handouts will be made available on: <http://msteenhagen.github.io/teaching/2017plo/>

Where and when

Monday 3-4pm. Lecture Block Room 1

Lecture 1: Necessity

What is necessity? Can we distinguish different forms of necessity? This lecture discusses the notion of a necessary truth, and presents a model for such truths using possible worlds. ([slides](#))

Suggested Reading

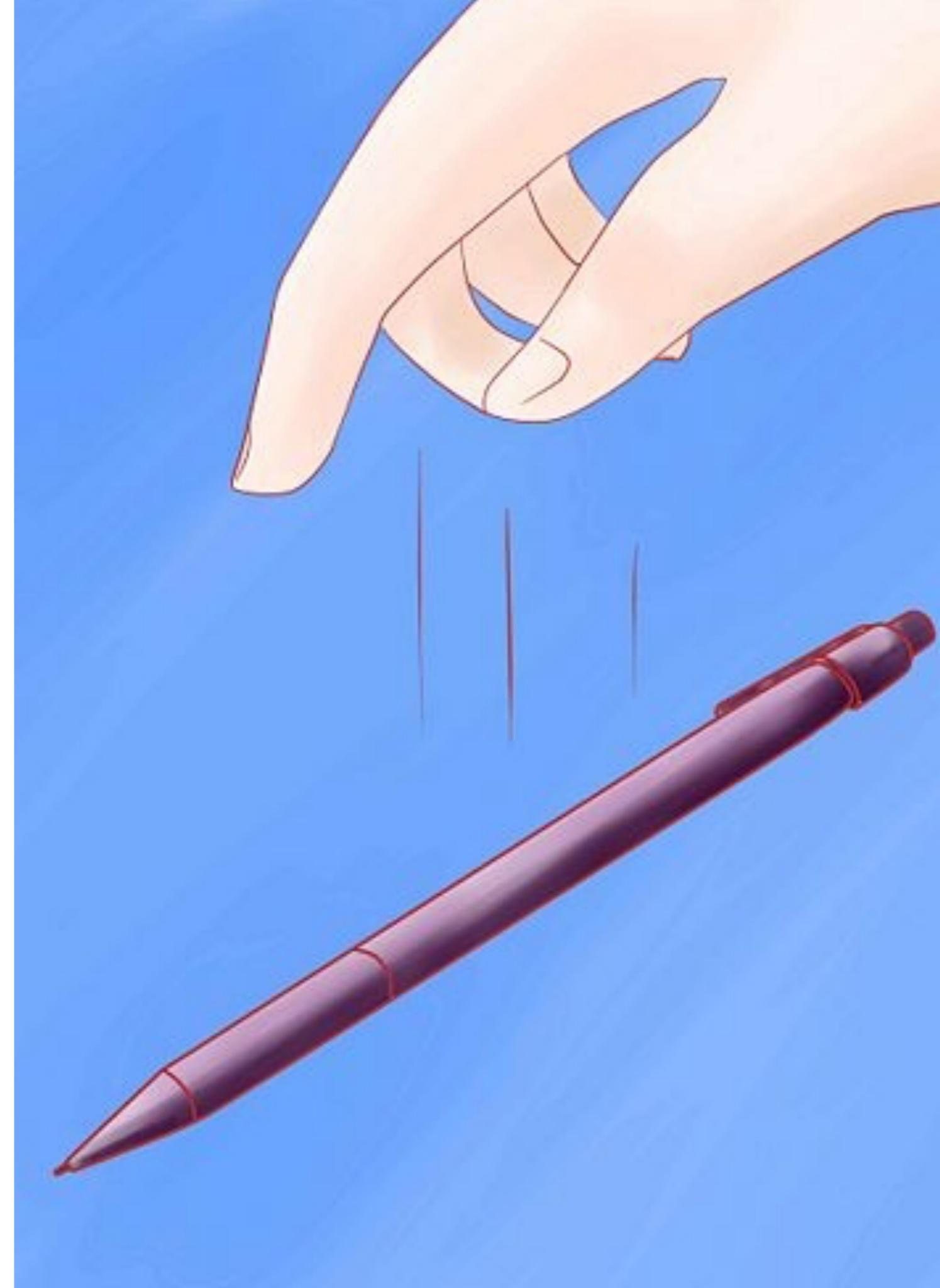
- W.V.O. Quine (1956), 'Quantifiers and propositional attitudes' *The Journal of Philosophy* 53, 177-187.
- W.V.O. Quine (1943), 'Notes on existence and necessity' *The Journal of Philosophy* 40, 118-127

You can find and download these slides and a list of suggested reading

<http://msteenhagen.github.io/teaching/2018naa/>

Necessity

‘Necessary’ in everyday language



Everyday necessities

- Different expressions for necessity: "There is no alternative...", "It cannot be otherwise", "It ought not be so!"
 - Sometimes we say things are necessarily so by definition (e.g. "capital cities *have to be* in a country or region")
 - Sometimes we say things are necessary because of laws or principles ("the pen *must* fall when you let it go")
 - Sometimes we say things are necessarily such-and-such because of some deep fact about them ("a triangle *cannot but have* three sides")

Varieties of necessity I

Necessity
de re,
necessity
de dicto



Illustration: beliefs *de re*, beliefs *de dicto*

- Take the following:

Ralph believes that someone is a planning a government coup.

- This could either mean

Ralph believes that there are people planning government coups.

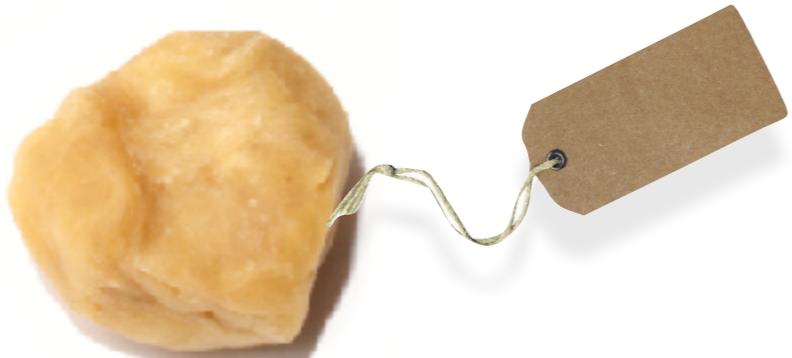
or

Someone is such that Ralph believes that he or she is planning planning a government coup.



Necessity *de re* vs necessity *de dicto*

- A *de re* necessity: some object (e.g. a piece of wax) has some property (e.g. extension) necessarily



- A *de dicto* necessity: some statement (or proposition) is necessarily true

‘The wax is extended’



W.V.O. Quine

- Quine's 'reductio ad absurdum' argument against *de re* necessity:
 1. 8 is necessarily greater than 7 (Assumption, for reductio)
 2. The number of planets is 8 (Assumption)
 3. The number of planets is necessarily greater than 7 (from 1,2)
 4. The number of planets is not necessarily greater than 7 (Assumption)
 5. Contradiction (3,4)

(Quine, 'Notes on existence and necessity' 1943)

Note, Quine proposes, for the sake of argument, to read these as *de re* necessity claims: e.g. 'The number 8 is such that it is necessarily greater than 7'.

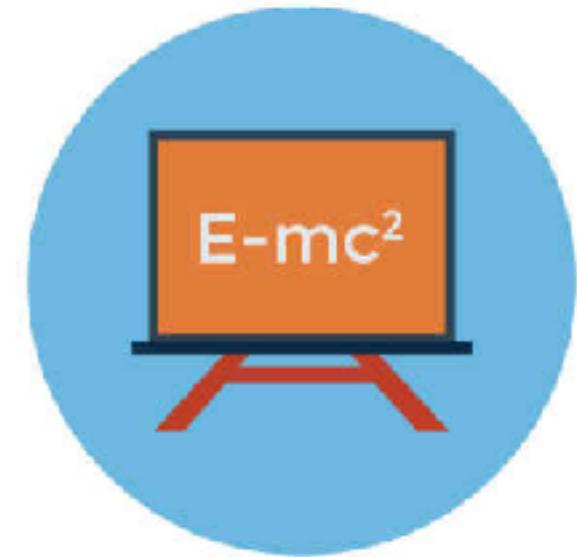
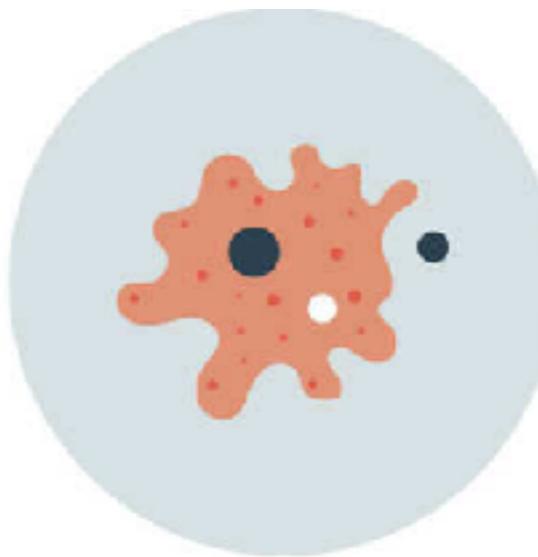


Necessary truths and modal logic

- The logical properties of necessary truths are studied in *modal logic*. (e.g. What can we deduce logically if P is necessarily true?)
 - ‘Modal’, from ‘mode’ (roughly: ‘way’): Modal logic studies the logical properties of modes or ways of being true.
 - In what ways can a statement be true? (Necessarily, possibly, ...)

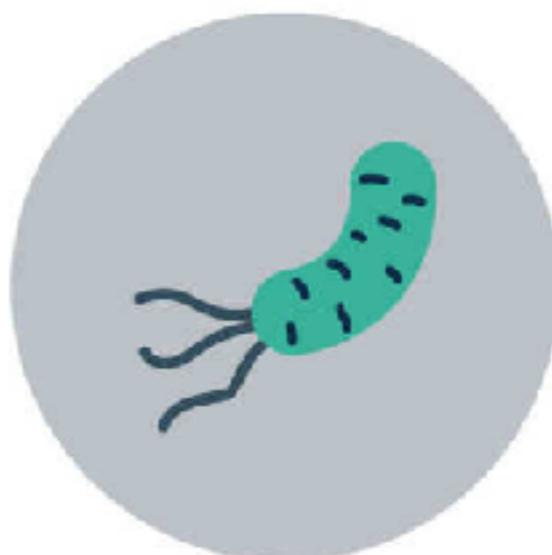
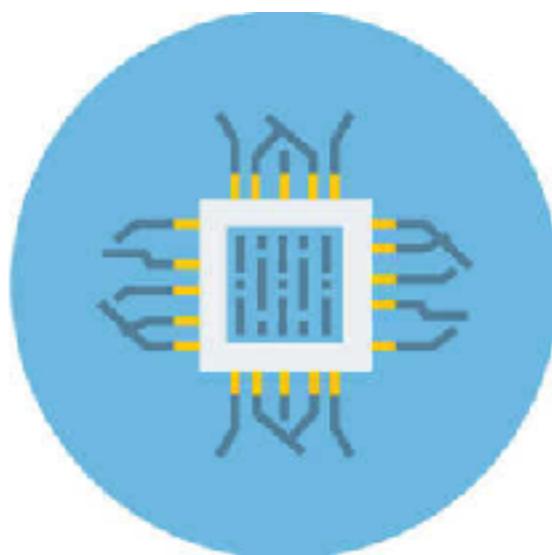
Varieties of necessity II

Natural,
Metaphysical
and Logical necessity



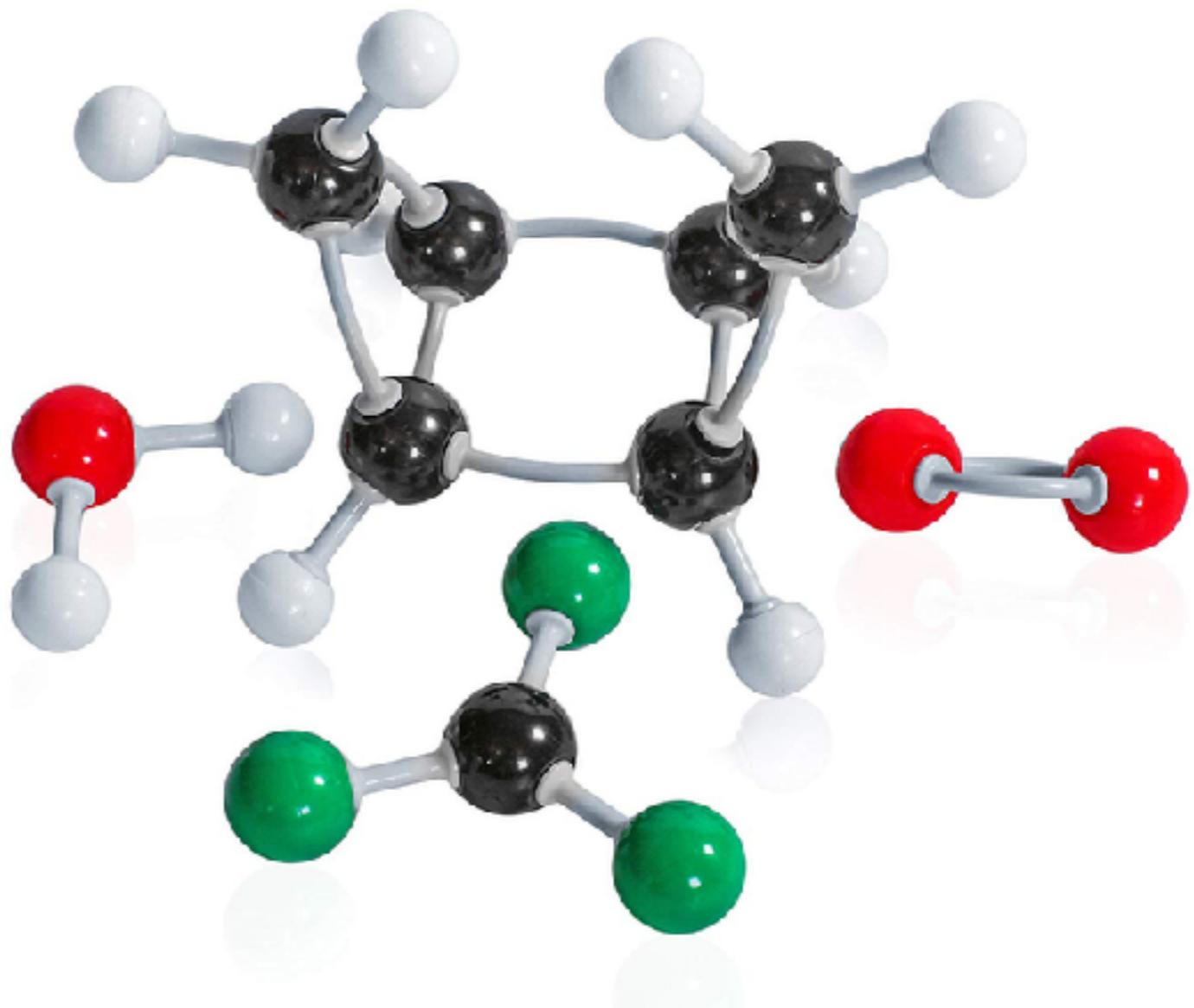
‘How necessary?’

- Natural necessity: Necessary, given the laws of nature physics, biology, chemistry... (also ‘nomological necessity’)
- Metaphysical necessity: Necessary, given the essential natures of things
- Logical necessity: Necessary, on pain of logical contradiction



Can we define necessity?

(What is it for a
statement to be
necessarily true?)

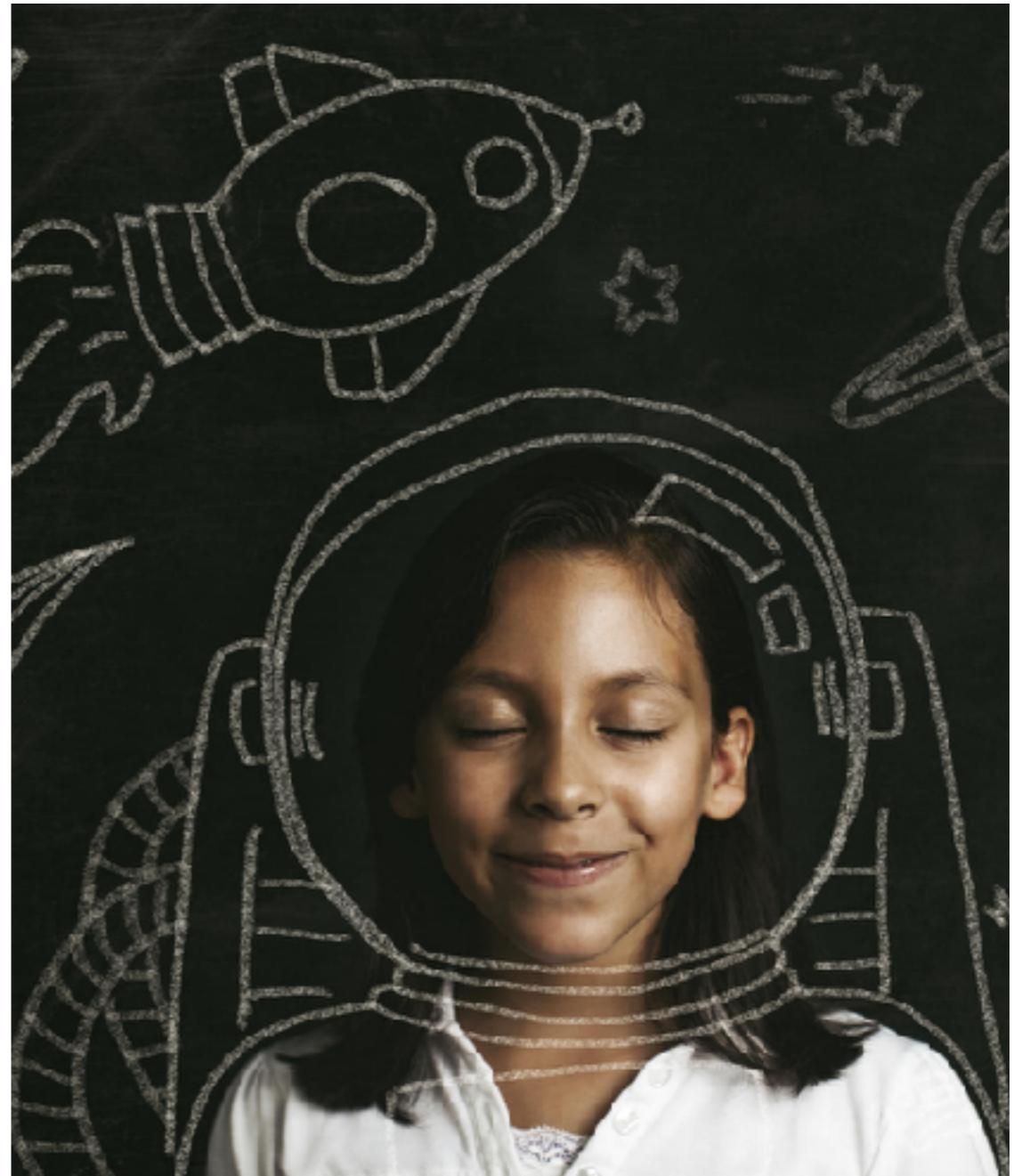


Possible worlds

- We can define necessity in terms of possibility:

A statement is a necessary truth if and only if it is not possible that it is false.

- We have a good grasp of the notion of possibility. We think or imagine possible situations or outcomes before we plan our Christmas holidays, for example.



Possible worlds

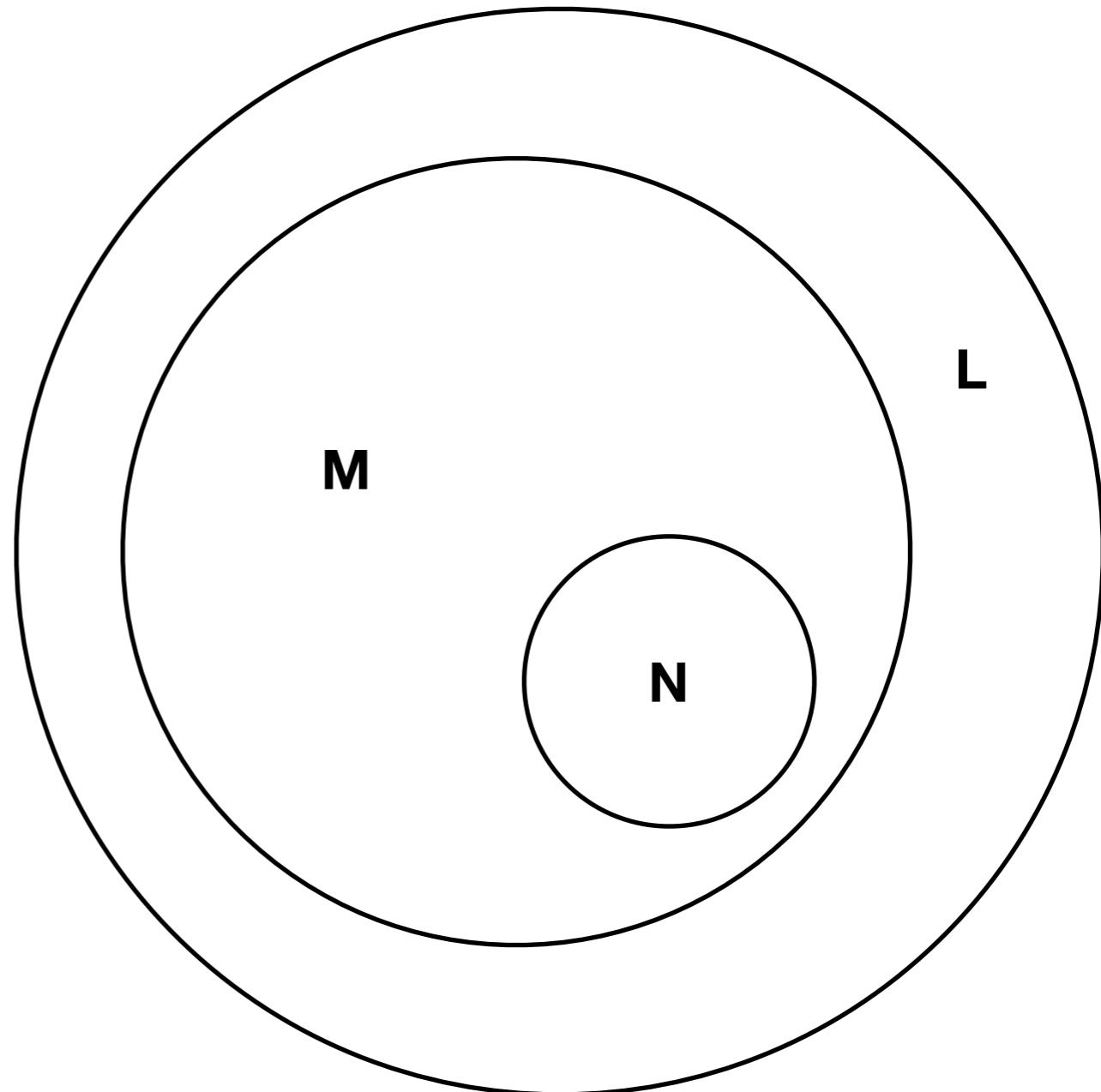
- When we imagine possibilities, we imagine a possible world—a way the actual world could be
- The idea of a possible world is an extremely useful concept
- A possible worlds model of necessary truths:

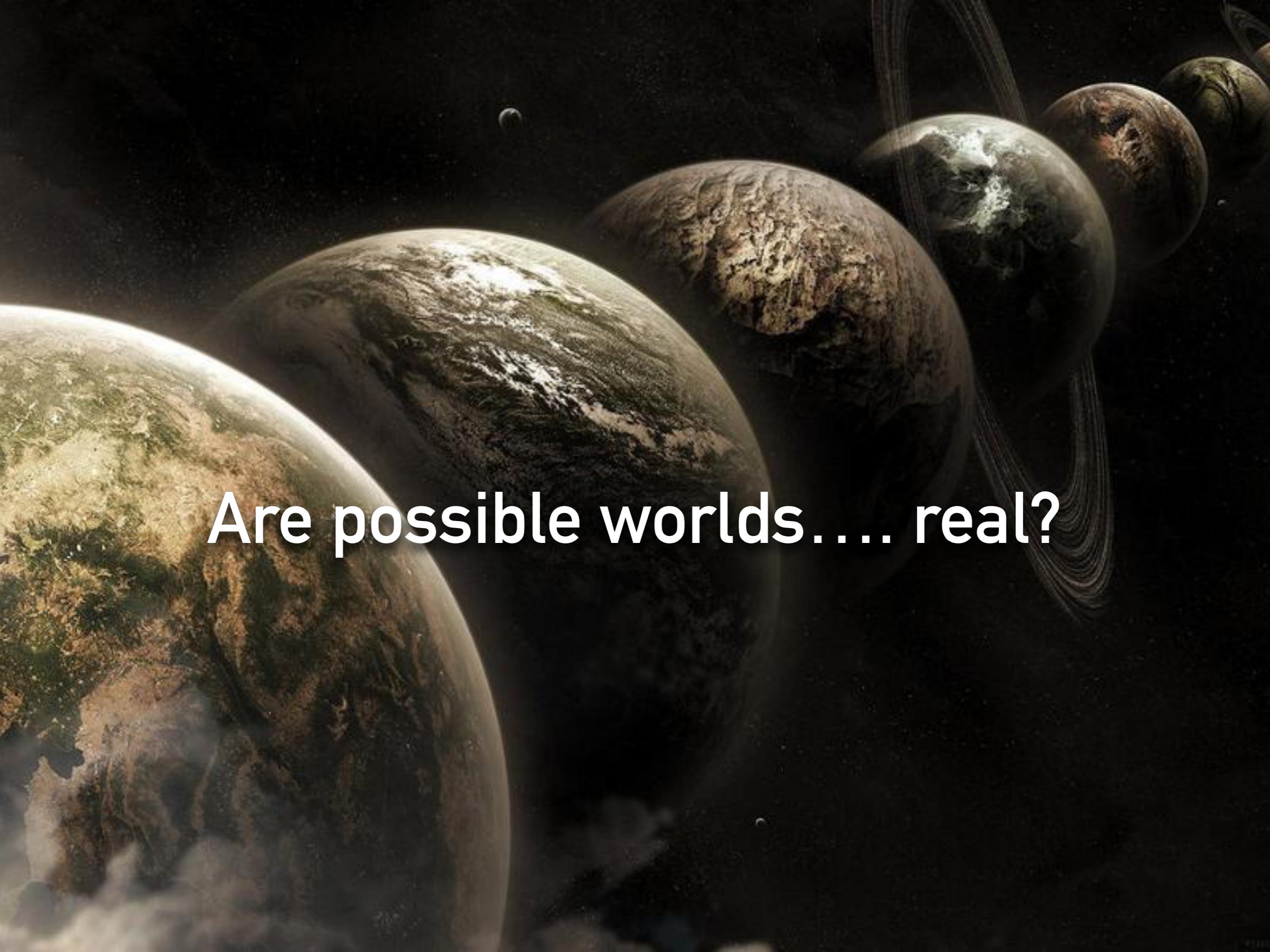
A statement is a necessary truth if and only if there is no possible world in which it is false



Possible worlds

- Necessary truths are true in every possible world
- Possible truths are true in some possible world
- The difference between natural, metaphysical, and logical necessity can now be understood as a difference in the collection of worlds we are considering





Are possible worlds.... real?

Possible worlds as model?

- We should distinguish between *models* and *reality*
- Many philosophers think that a collection of possible worlds is merely a useful *model* for thinking about necessity
- But David Lewis thinks that our talk about necessity shows that we should accept the possible worlds as *reality*



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