

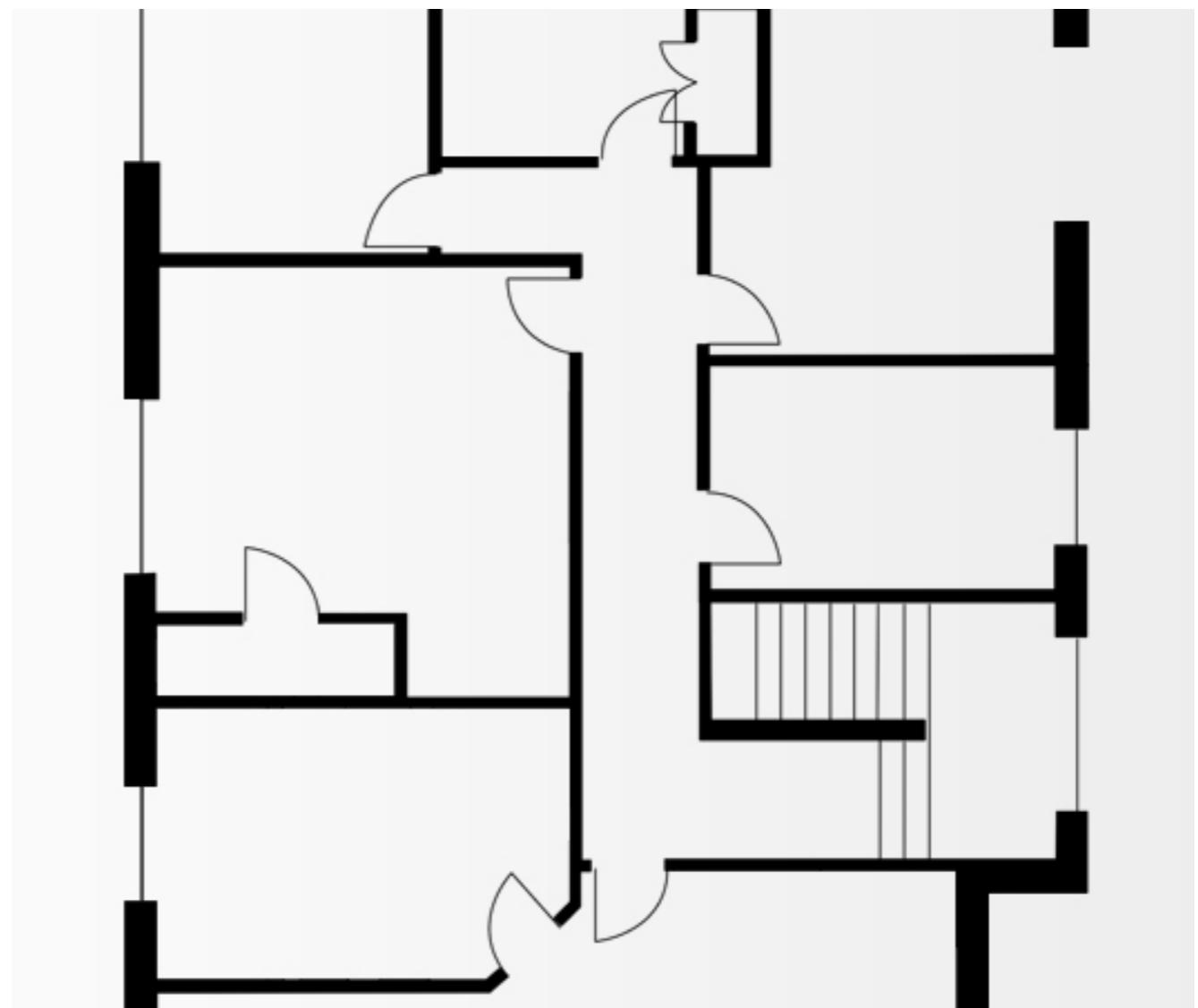


Necessity, Analyticity & A priority

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Michaelmas 2018
Lecture 4**

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



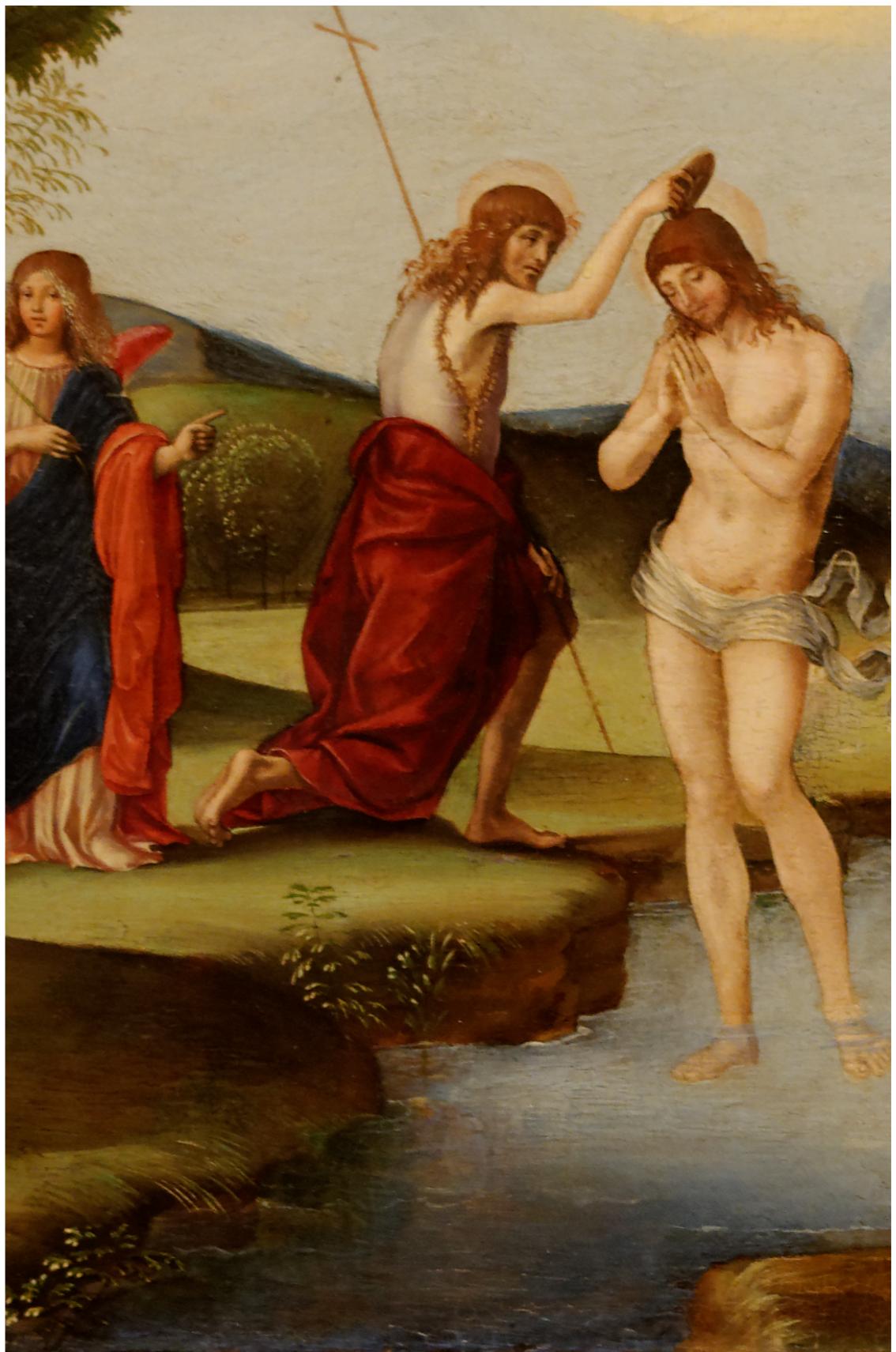
Plan

- A. Necessary a posteriori truths
(identity and rigid designation)
- B. Contingent a priori truths
(rigid and non-rigid designation)
- C. Synthetic a priori truths
(a priori science)



Reference in practice

How do we recognise a rigid designator?



Weak and Strong Rigidity

- **Strong Rigidity:** A referring expression is a *strongly* rigid designator if and only if it refers to the same object in all possible worlds
- **Weak Rigidity:** A referring expression is a *weakly* rigid designator if and only if it refers to the same object in all possible worlds in which that object exists
- ‘Plato’ is weakly rigid, because it refers to the same object in all worlds in which Plato exists



Intuitive test for rigid designation

Can we offer an intuitive test for rigid designation? Here's a case for the name 'Plato'.

'Plato' is a rigid designator iff 'Plato could not have existed without being Plato, and nothing other than Plato could have been Plato' is true

This seems right: Plato could indeed not have existed without being Plato, and nothing other than Plato could have been Plato. This reveals something about our practice of using the name 'Plato'; we use it as a rigid designator.

Intuitive test for rigid designation

We can generalise this as follows:

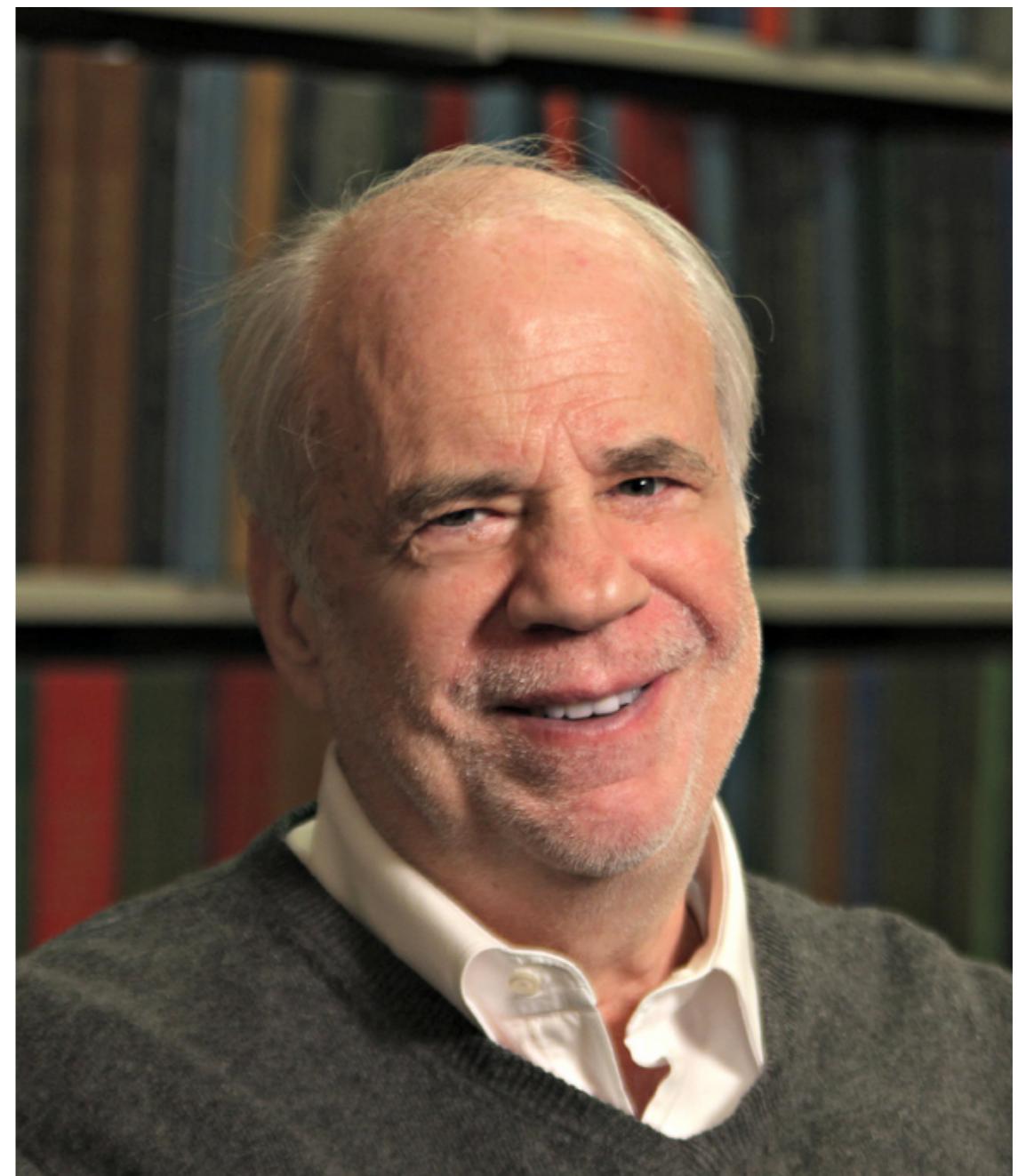
n is a rigid designator iff ' n could not have existed without being n , and nothing other than n could have been n ' is true

Note, we need so-called quasi-quotation to get the general formulation right. Why does the following not work?

n is a rigid designator iff ‘ n could not have existed without being n , and nothing other than n could have been n ’ is true

Names as rigid designators

- “One of the intuitive theses I will maintain in these talks is that names are rigid designators. Certainly they seem to satisfy the intuitive test mentioned above: although someone other than the U. S. President in 1970 might have been the U. S. President in 1970 ...no one other than Nixon might have been Nixon.” (1972, 48)



Simple names

- Suggestion: Rigid designators are just the simple (proper) names
- This is not correct: ‘the sum of 1 and 2’ is a complex referring expression for the number three. It’s a descriptive phrase. But it is a rigid designator.
- (Moreover, if the number three exists in all possible worlds it is strongly rigid.)



Science and identity

How do we use rigid designators if we don't know what we're talking about?



Scientific terms

- Kripke thinks that many kind terms used by the sciences are rigid designators (e.g. ‘Water’, ‘Higgs boson’ or ‘H₂O’)
- At an early stage of scientific enquiry, people might not know exactly what water is, but they can still talk about it in their investigations. It's as if they say *that stuff*, ‘water’, pointing to some water.
- We use an expression as rigid if we use it as some kind of deferred demonstrative (‘causal theory of reference’)

Scientific terms

- Water could not have existed without being water, and nothing other than water could have been water.
- H₂O could not have existed without being H₂O, and nothing other than H₂O could have been H₂O.
- So both ‘water’ and ‘H₂O’ are rigid designators

‘Water = H₂O’

- If ‘water’ and ‘H₂O’ are both rigid designators, then ‘Water is H₂O’ is a necessary truth that required empirical investigation for its verification
- ‘Water is H₂O’:
 - Necessary
 - Synthetic
 - A posteriori



Self-identity

- Don't forget, some identity statements are necessary truths just because of their logical form ('Jimothy Lacoste is Jimothy Lacoste').
- But if an a posteriori identity statement is necessarily true, it is true because the names involved refer rigidly, and so pick out the same object in every possible world
- So there is something about that object that ultimately accounts for the necessity. And this is the simple fact that in every possible world everything is self-identical.
- (Distinguish between the necessity of *identity*, which is universal, and the necessity of *identity statements*, which is not universal.)

Contingent a
priori truths



A priori and contingent

- A statement S is an *a priori* truth if and only if understanding the meaning of S is all that is required to know that S is true
- A statement S is a contingent truth iff it is not a necessary truth and actually true (i.e. true in the actual world)
- How can a statement that is only true in some possible worlds nonetheless be knowable *a priori*?



A priori and contingent

- Kripke's example

'The standard meter rod in Paris is one meter long'

- It is clearly contingent: the standard meter rod in Paris might have been longer than it in fact is (i.e. the statement is true but could have been false)
- But doesn't this mean that to know that it is true we need to go to Paris?



1 m = the length of the standard meter rod in Paris



MÉTRE

'The standard meter rod in Paris is one meter long'

The synthetic a priori

Critik
der
reinen Vernunft



von

Immanuel Kant

Professor in Königsberg.



Riga,
verlegt von Johann Friedrich Hartknoch
1781.

Kant's synthetic a priori

- The following is a necessary truth:

$$7 + 5 = 12$$

- Immanuel Kant (1724-1804): “no matter how long I analyze my concept of such a possible sum [of seven and five] I will still not find twelve in it” (*Critique of Pure Reason*, B-Introduction)
Hence, if it is true, it is a synthetic truth
- Yet we do not need to make any further observations to determine that it is true. A simple mental counting allows us to get there.
So it is a priori.
- The significance of the possibility of synthetic a priori knowledge: it allows for armchair speculation about the concrete world.



Quiz!

Which of the following combinations are coherent options?



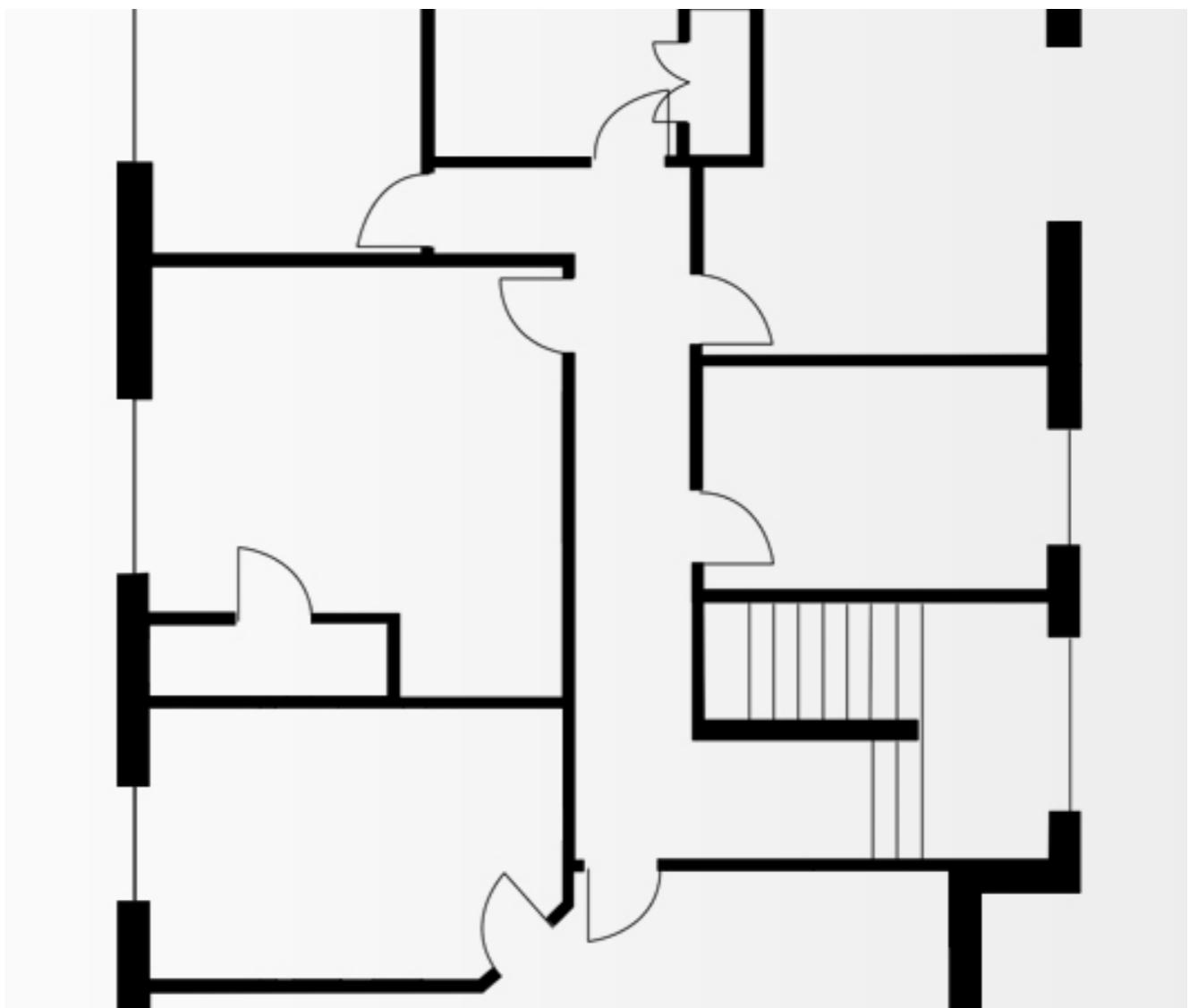
Quiz

Which of these are coherent options? Can you give examples?

- Analytic: Necessary: A posteriori
- Analytic: Necessary: A priori
- Analytic: Contingent: A posteriori
- Analytic: Contingent: A priori
- Synthetic: Necessary: A posteriori
- Synthetic: Necessary: A priori
- Synthetic: Contingent: A posteriori
- Synthetic: Contingent: A priori

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Bonus: ‘Transworld identities’

In these lectures, I will argue, intuitively, that proper names are rigid designators, for although the man (Nixon) might not have been the President, it is not the case that he might not have been Nixon (though he might not have been *called* ‘Nixon’). Those who have argued that to make sense of the notion of rigid designator, we must antecedently make sense of ‘criteria of transworld identity’ have precisely reversed the cart and the horse; it is *because* we can refer (rigidly) to Nixon, and stipulate that we are speaking of what might have happened to *him* (under certain circumstances), that ‘transworld identifications’ are unproblematic in such cases.¹⁶

What is the alternative model Kripke is arguing against here?