

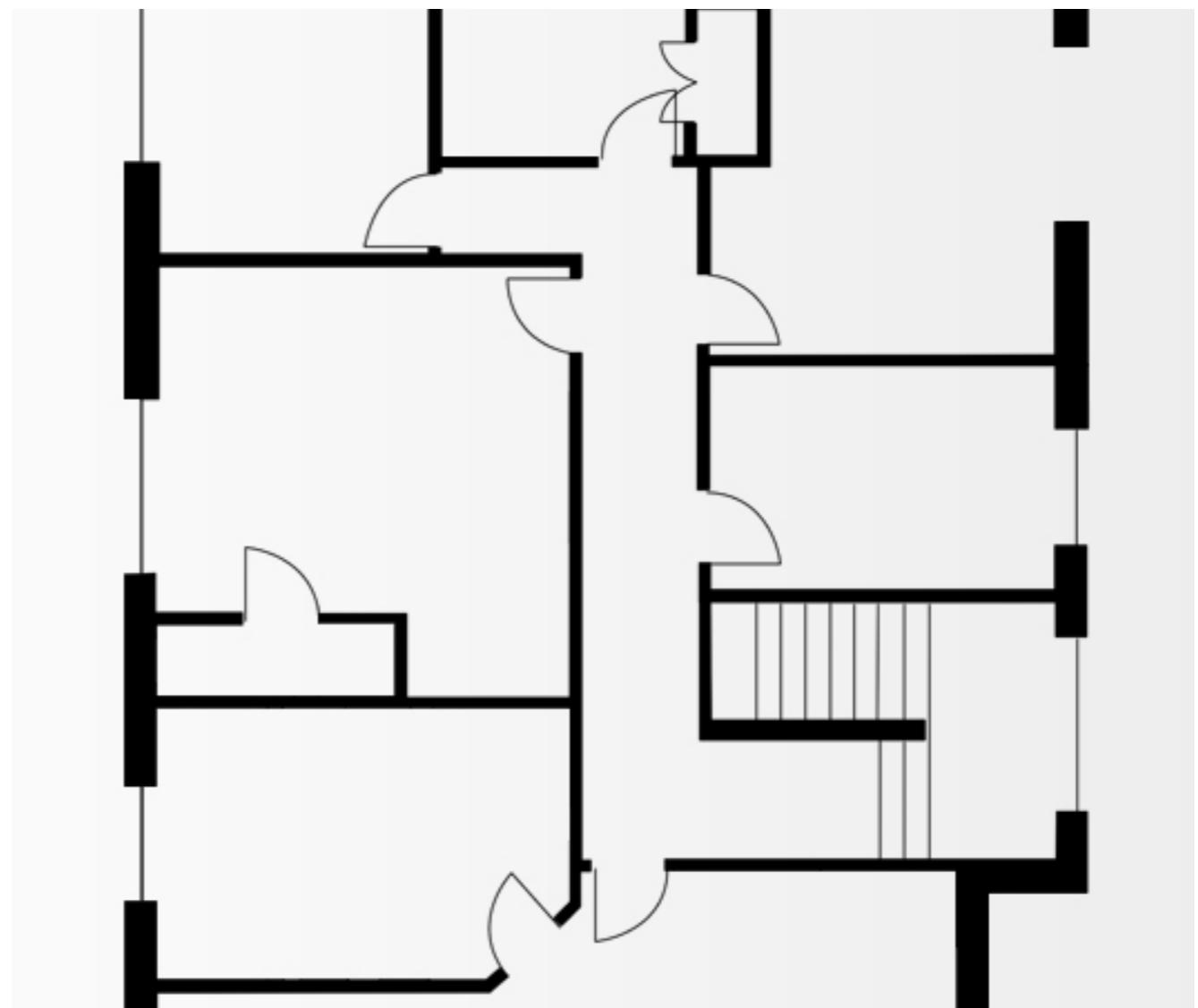


Necessity, Analyticity & A priority

**Dr Maarten Steenhagen
Michaelmas 2018
Lecture 3**

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, contingency, and possibility

Is S true...	in all possible worlds?	in some possible worlds?	in the actual world?
Necessary truth	YES	YES	YES
Contingent truth	NO	YES	YES
Possible truth	YES/NO	YES	YES/NO

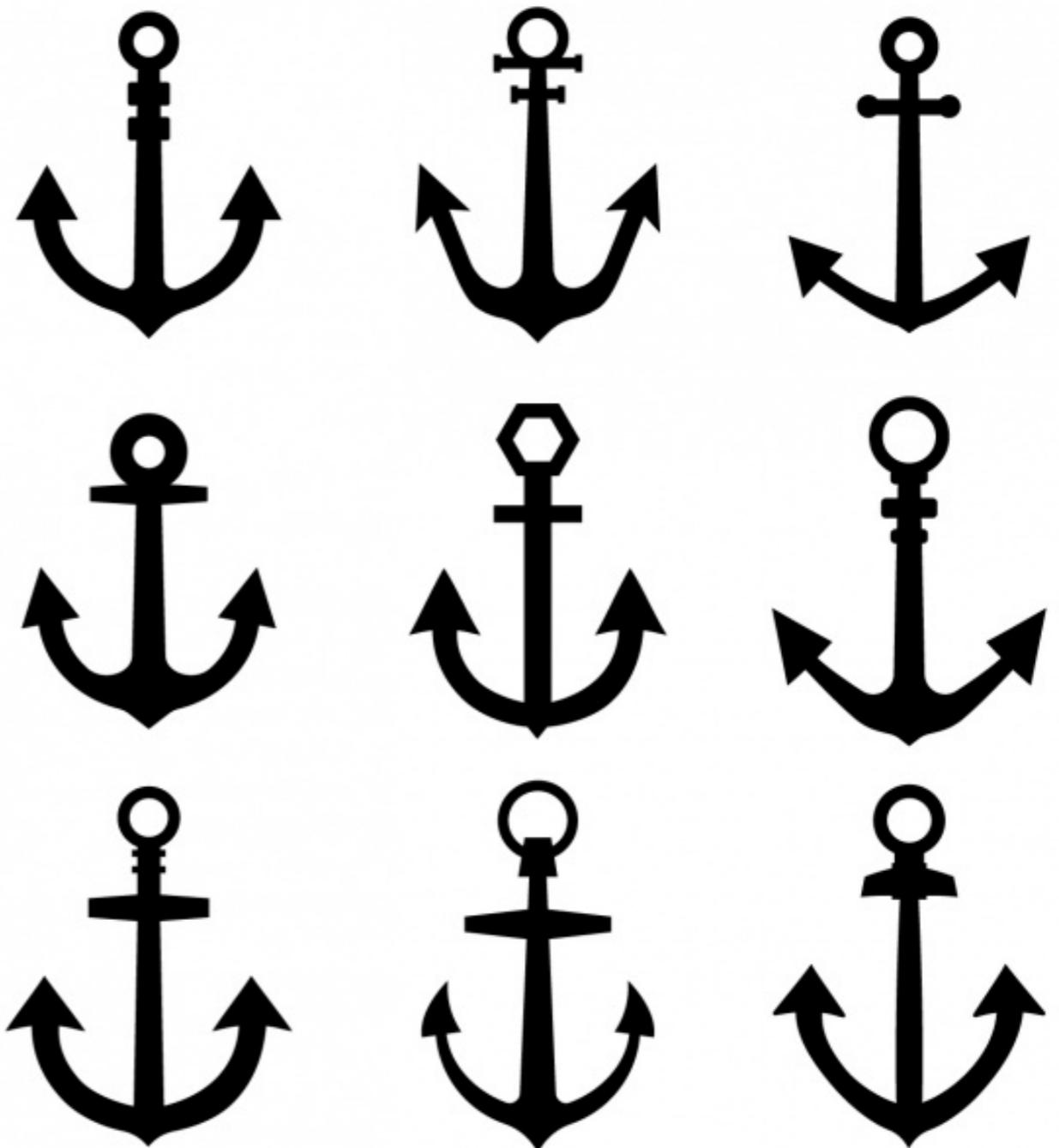
Previous lecture



For any sentence S...

1. S is a necessary truth \leftrightarrow S is an analytic truth
2. S is an analytic truth \leftrightarrow S is an a priori truth
3. S is an a priori truth \leftrightarrow S is a necessary truth

Reference, Description, and Rigid Designation



A puzzle about identity

Jimothy is Timothy



A photograph showing the lower half of a person walking away from the camera on a paved brick path. The person is wearing bright red sweatpants and white sneakers with black stripes. To the left is a body of water with green lily pads. The background is a dense green forest.

WATCH AND LISTEN
IN GOOD VOLUME
TO HEAR THE DIRTY BASS.

Identity and Predication

- Jimothy Lacoste is Timothy Gonzales
- Jimothy Lacoste is getting busy
- ‘is’: identity or predication
- Basic identity statements are those where two names are conjoined by ‘is’, used as the ‘is’ of identity
- Are identity statements, when they are true, necessarily true?



Are identity statements, when they are true, necessarily true?

Argument **for** necessity of truth of identity statements:

- When you make a true identity statement, you pick out the same thing twice, and say that it is the same thing as itself
- But nothing can fail to meet that condition. It is impossible for something to fail to be identical to itself!
- So an identity statement, when true, is true necessarily, given that there is no possibility in which it is false

Are identity statements, when they are true, necessarily true?

Argument **against** necessity of truth of identity statements:

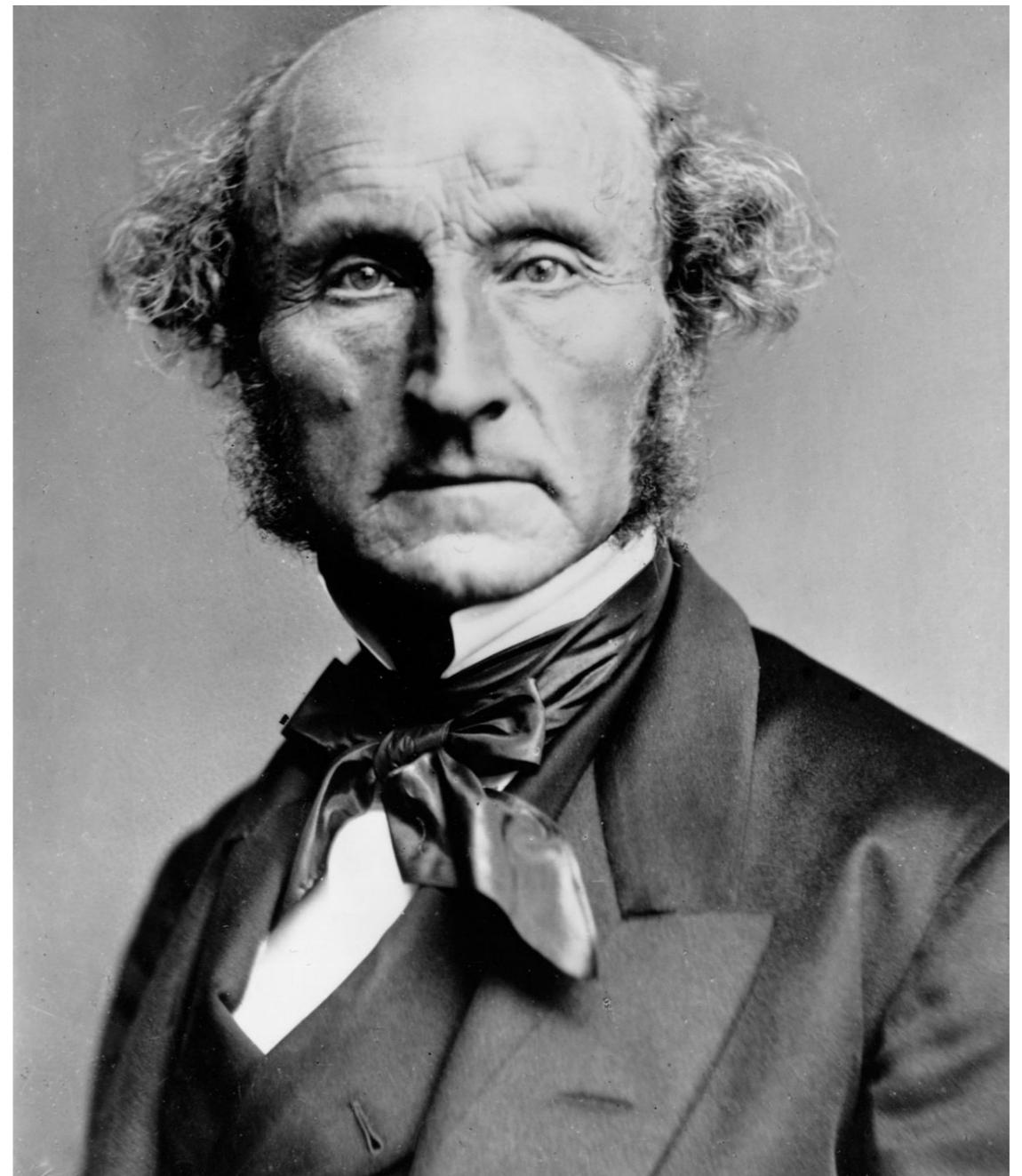
- S: ‘Jimothy Lacoste is Timothy Gonzales’ [True]
- Both ‘Jimothy Lacoste’ and ‘the most famous rapper from Camden’ designate the same person
- S*: ‘The most famous rapper from Camden is Timothy Gonzales’ [contingently true]
- S and S* are semantically equivalent (i.e. both say of Jimothy Lacoste that he is Timothy Gonzales)
- So S is true only contingently, not necessarily

Names



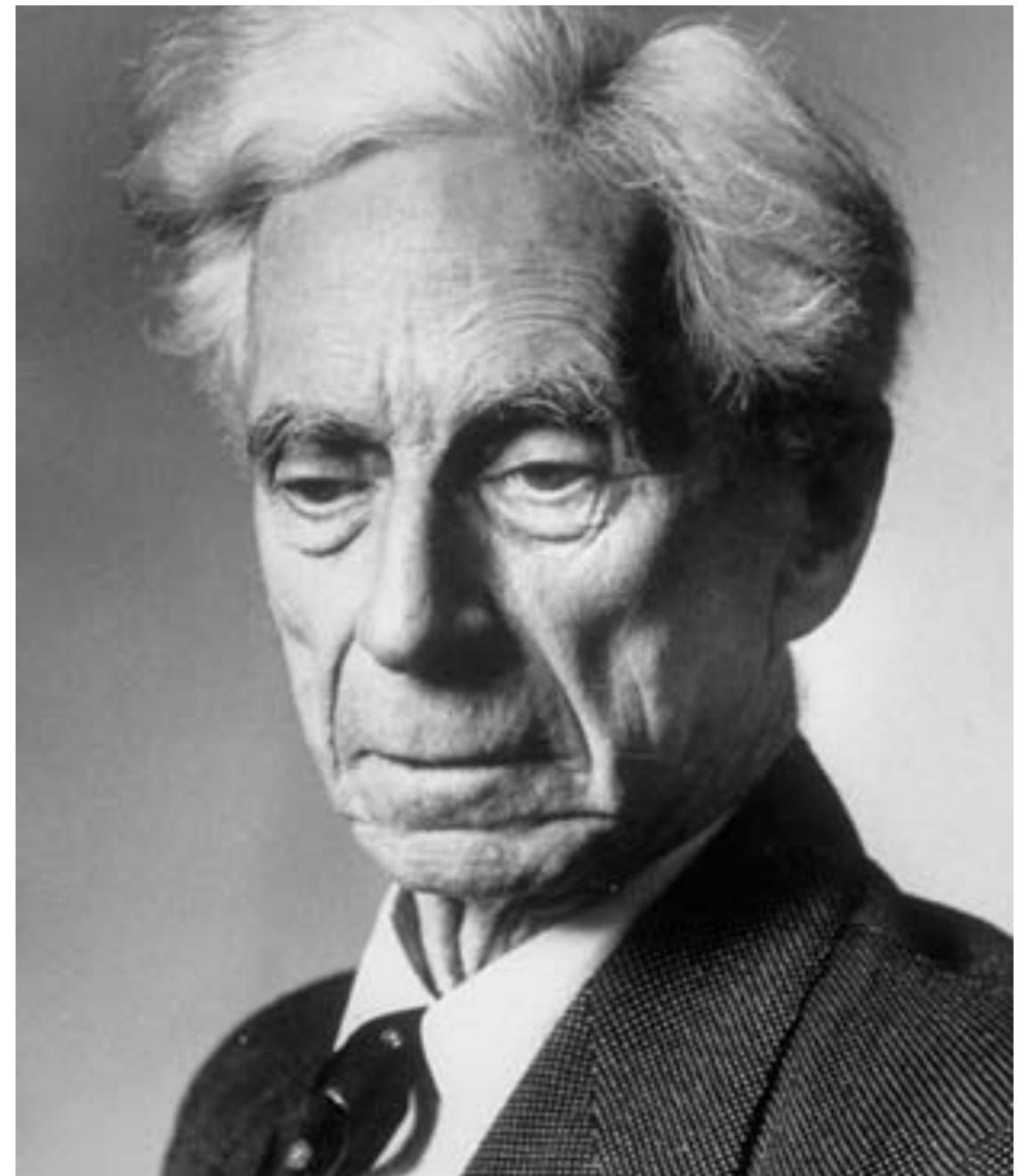
Millianism

- Common-sense view: the semantic contribution of a name is its referent (and only its referent)
- ('semantic contribution' = contribution to the meaning of the statement in which the name is used)
- More complex names ('the teacher of Aristotle') may have additional baggage (connotation); not semantically relevant
- John Stuart Mill (1806–73), hence 'Millian' theory of names
- All identity statements seem either necessary or meaningless (when names are 'empty')



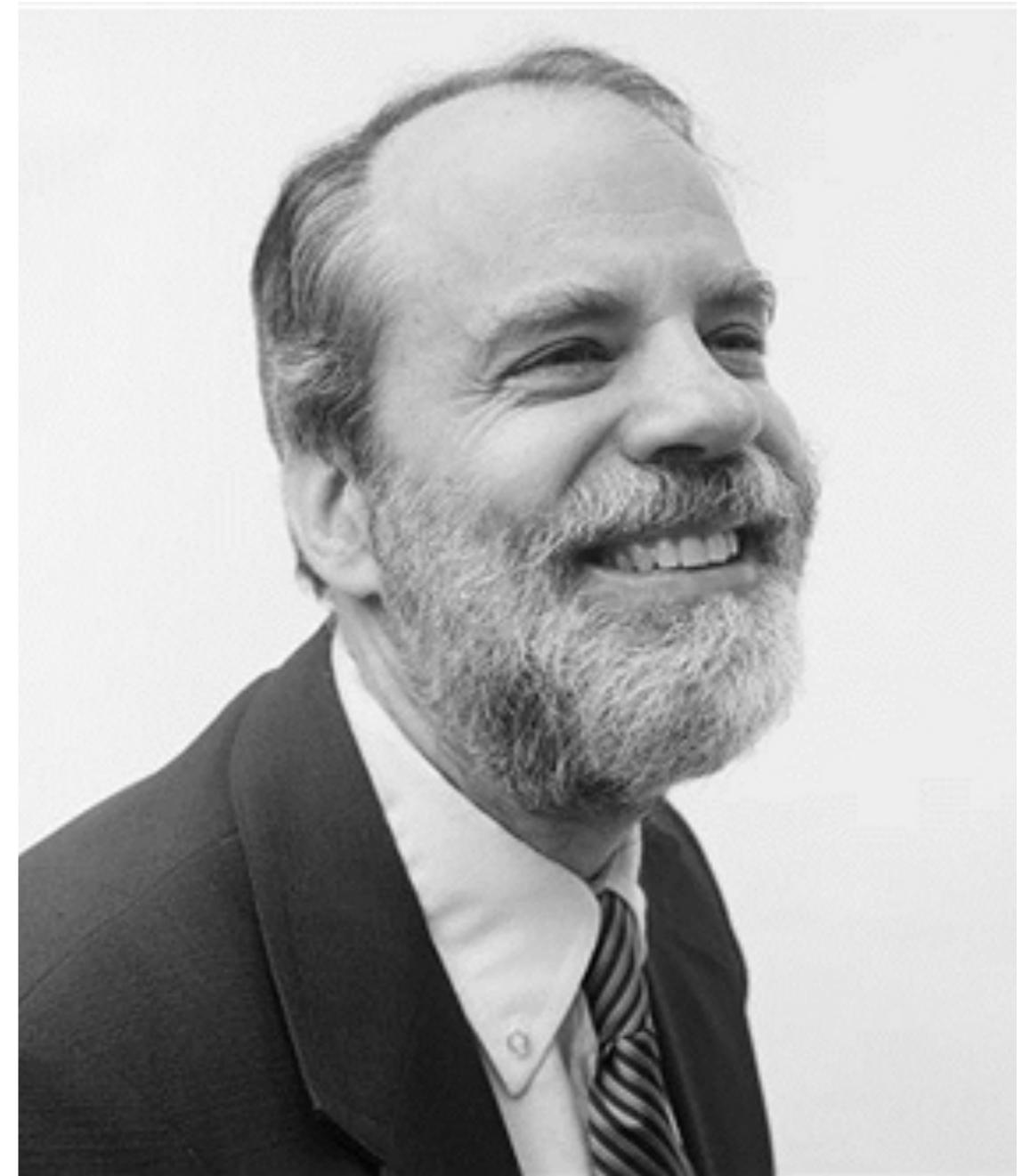
Descriptivism

- Each ordinary name makes a semantic contribution that is equivalent to the semantic contribution of some descriptive phrase ('the F')
- In other words, for a name like 'Plato' we there is some description (e.g. 'the teacher of Aristotle') that makes its semantic contribution more explicit
- Bertrand Russell (1872-1970)
- All identity statements seem contingent (except for trivial ones, 'a is a')



Comparison

- Mill and Russell agree: all ordinary names (simple and complex) contribute to semantics in the same way
- They disagree about what this contribution is: Mill thinks it's simple 'tagging' (reference); Russell thinks its just descriptive identification (denotation)
- Saul Kripke: Not all names make the same semantic contribution. Only some names are *rigid designators*



Rigid Designation

A name is a rigid designator if and only if it refers to the same object in all possible worlds

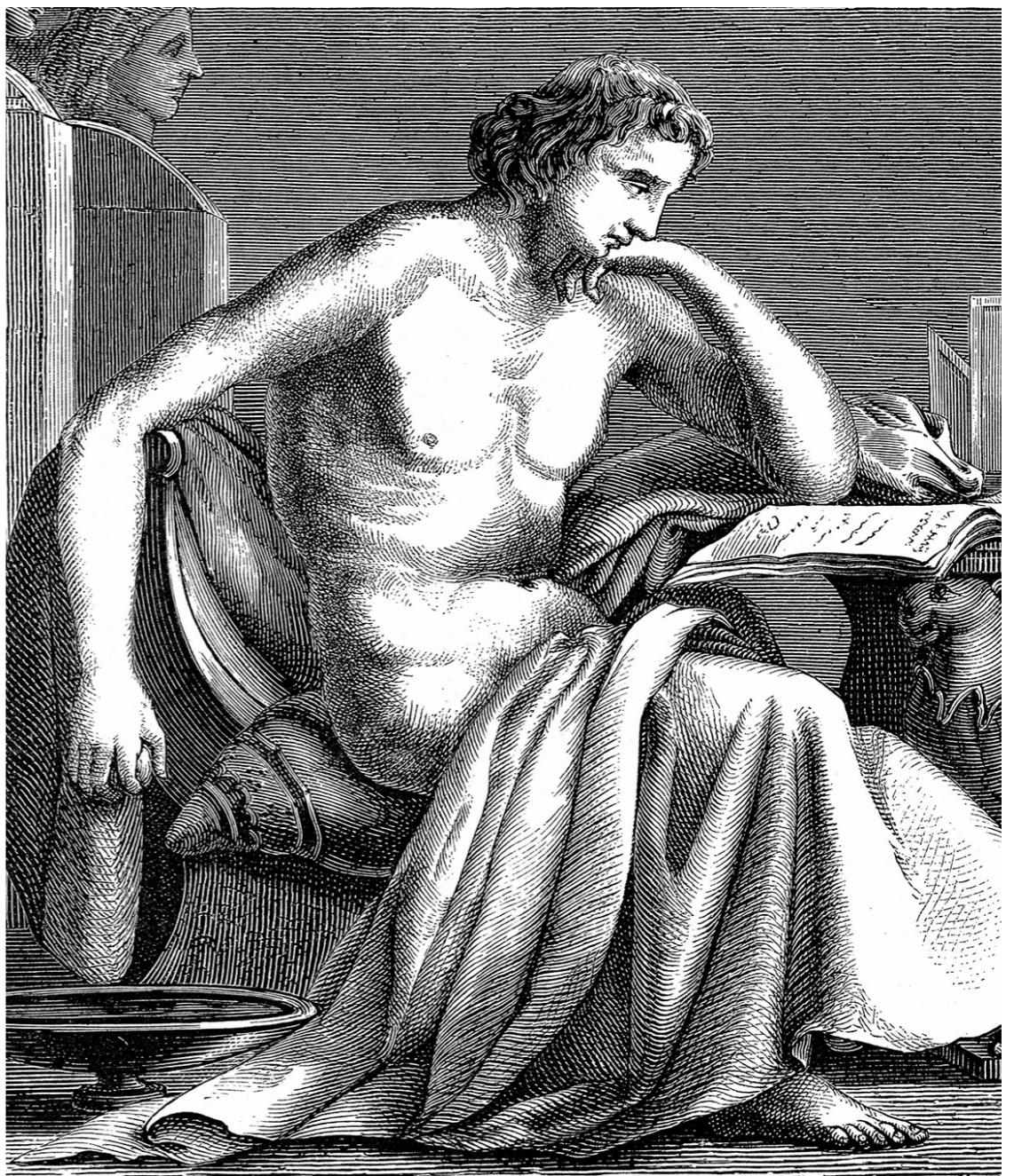
Kripke: ‘Plato’ refers to Plato in all possible worlds

Compare, ‘the teacher of Aristotle’ does not refer to Plato in all possible worlds



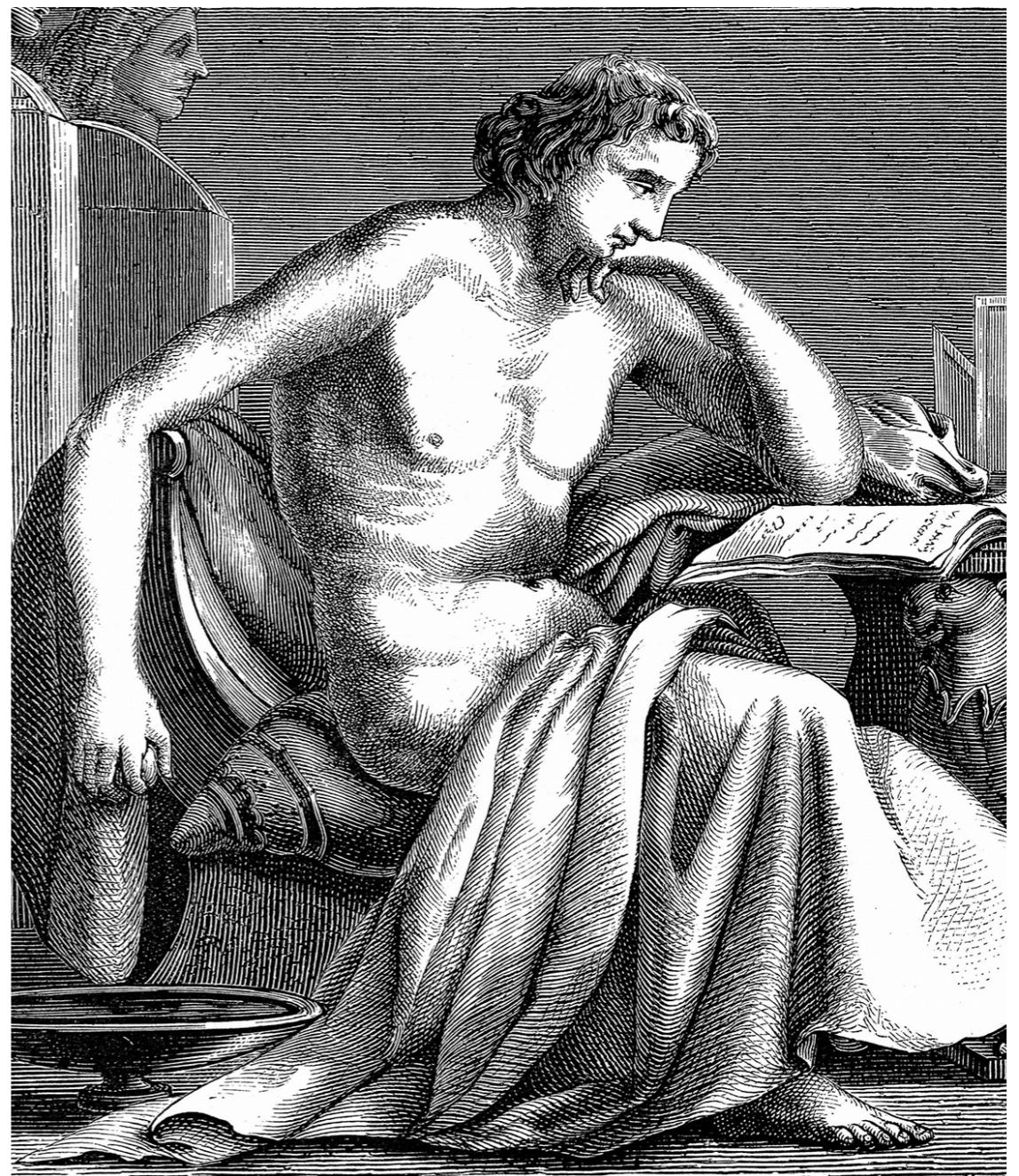
Problem 1: possible uses

- What if we consider a possible world in which people use ‘Plato’ to refer to Aristotle?
- Shouldn’t we say that ‘Plato’ in this world refers to Aristotle? If so, then ‘Plato’ is not a rigid designator.
- No. The mistake is to confuse actual uses of ‘Plato’ and merely possible uses of ‘Plato’. Actually, ‘Plato’ refers to Plato.
- If a term T is a rigid designator, then in all possible worlds T designates the thing it designates in the actual world.



Problem 2: non-existence

- What if Aristotle was self-taught and Plato never existed? (This seems a possible scenario)
- It is clear that ‘the teacher of Aristotle’ would not pick out anyone in that situation.
- But would ‘Plato’ still refer to Plato?
- Not obviously: it seems that reference requires existence
- So does this mean ‘Plato’ is not 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



Necessary a posteriori truths

Can we prove that
identity statements with
rigid designators are
necessarily true?



Argument for necessity

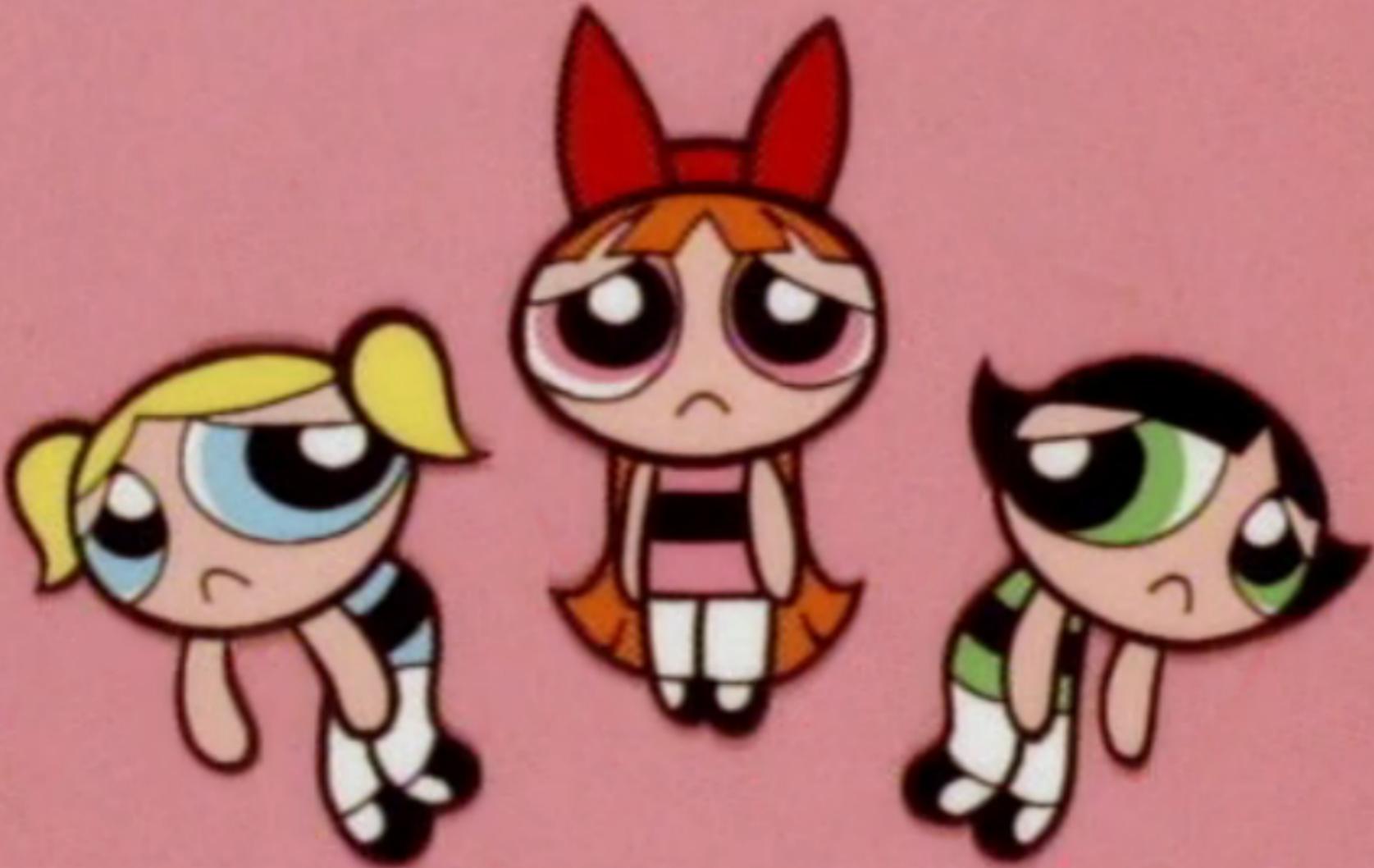
1. ‘Jimothy is Timothy’ is merely contingently true (Assumption, for *reductio*)
2. If ‘Jimothy is Timothy’ is contingently true, then ‘Jimothy’ and ‘Timothy’ must refer to the same thing in the actual world
3. Both 'Jimothy' and 'Timothy' are rigid designators
4. If a statement *s* is contingently true, then there is some world *w* in which *s* is false
5. If ‘Jimothy is Timothy’ is false, then ‘Jimothy’ and ‘Timothy’ refer to different things
6. So there is some world in which ‘Jimothy’ and ‘Timothy’ refer to different things
7. But then either ‘Jimothy’ or ‘Timothy’ (or both) do not refer to the same thing in every possible world
8. Not both 'Jimothy' and 'Timothy' are rigid designators
9. Contradiction

“Jimothy Lacoste is Timothy Gonzales”

Necessary Contingent

A priori A posteriori

Analytic Synthetic



It is not the case that, for any sentence S...

1. S is a necessary truth \leftrightarrow S is an analytic truth
2. S is an analytic truth \leftrightarrow S is an a priori truth
3. S is an a priori truth \leftrightarrow S is a necessary truth

Science and identity

How do we recognise a rigid designator?



Simple names

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



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

‘Water = H₂O’

- If ‘water’ and ‘H₂O’ are both rigid designators (which they seem to be) then we have discovered the truth of ‘Water is H₂O’
- ‘Water is H₂O’:
 - Necessary
 - Synthetic
 - A posteriori



**What explains
the necessity
of identity
statements?**



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.)

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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