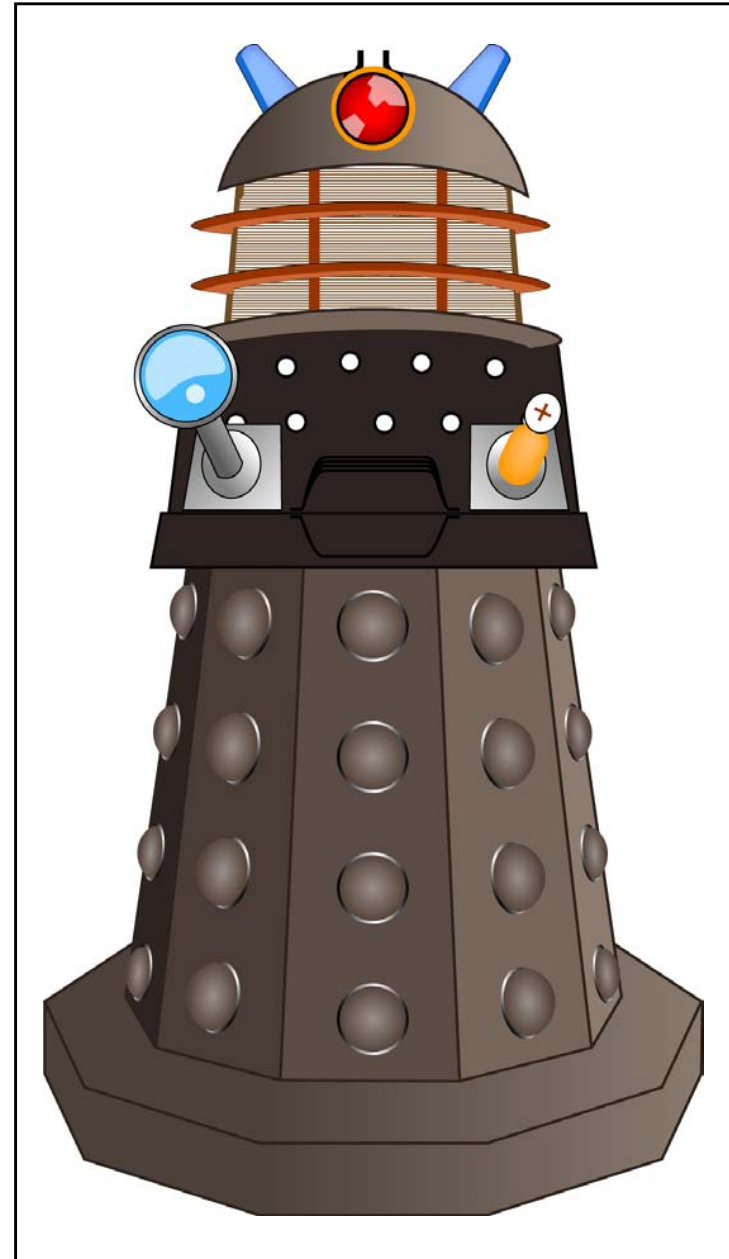


# 24.09 Minds and Machines

## Fall 11 HASS-D CI

the identity theory, contd.



# the identity theory

proposed by JJC Smart and UT  
Place in the 1950s

a 'theoretical identity'

water=H<sub>2</sub>O

heat=molecular kinetic energy

pain=c-fibers firing

'c-fibers' is just a placeholder  
for a more realistic candidate

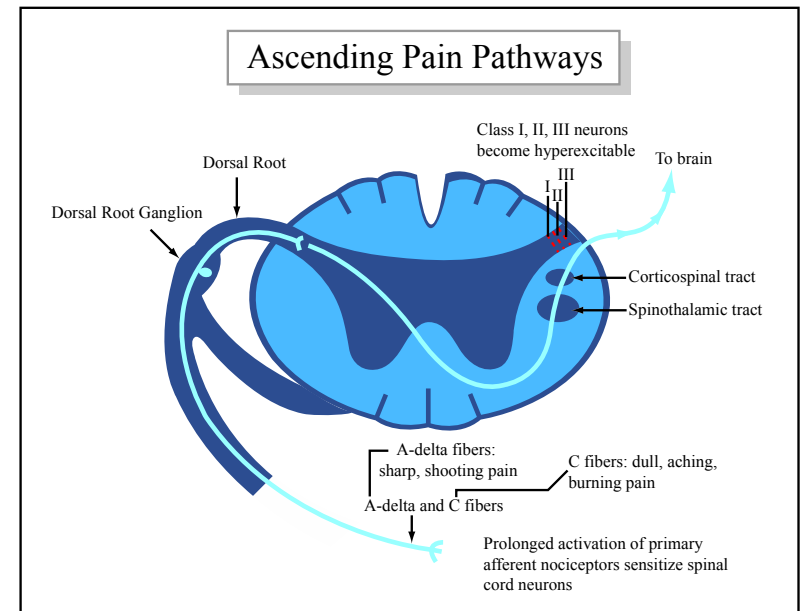


Image by MIT OpenCourseWare.

# identity

an equivalence relation



correlation vs. identity

footprints  $\approx$  the burglar / Bill Sykes = the burglar

'is' of predication / identity

Sting is famous / Sting is (=) Gordon Sumner

strict or numerical identity vs. 'identical twins'

'analytic' vs. 'synthetic' identities

the shortest bachelor = the shortest adult unmarried male /  
the morning star = the evening star

# philosophical toolkit: types and tokens

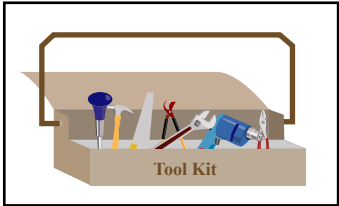


Image by MIT OpenCourseWare.

this terminology is due to the ‘American Pragmatist’ C. S. Peirce (1839-1914), and is in the reading from Kripke for wednesday

example 1

how many words in this sentence?

‘The cat sat on the mat’

6 tokens, 5 types

# how many flags?

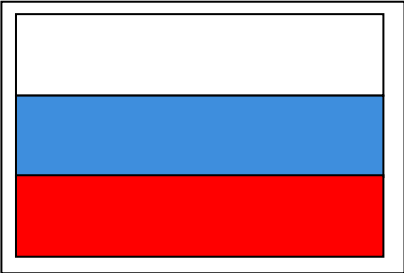


Image by MIT OpenCourseWare.

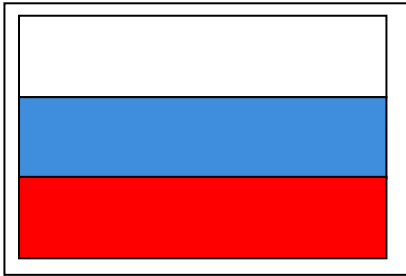


Image by MIT OpenCourseWare.

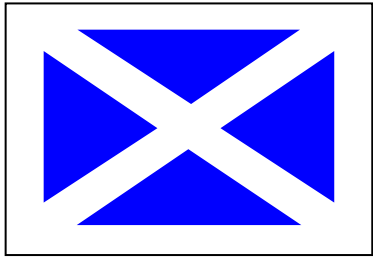


Image by MIT OpenCourseWare.



6 tokens, 3 types

## 'type-type'

pain = c-fibers firing

## 'token-token'

Smith's pain at 10am = c-fibers firing in  
Smith at 10am

Jones' pain at 11am = d-fibers firing in  
Jones at 11am...(etc.)

# type-type identity theories explained

despite the terminology, 'type-type' identity theories are not best understood in terms of the 'type-token' distinction

it is better to think of the 'type-type' theory as identifying properties rather than types

note that the American flag—taken either as a type or a token—is not a property

the property of being in pain = the property of having firing c-fibers

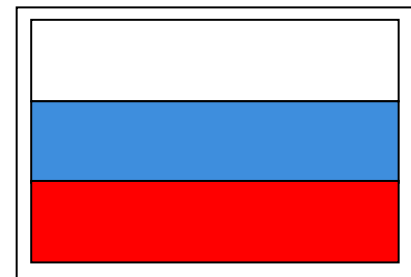


Image by MIT OpenCourseWare.

# identity as the best explanation

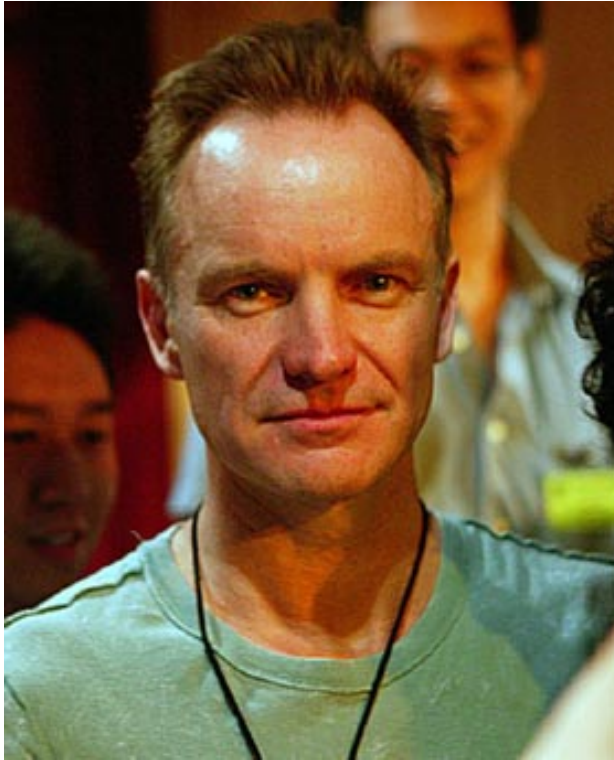


Image courtesy of [qippy.com](#) on Flickr.

**Gordon Sumner:**  
born in Newcastle, England  
on 2 October, 1951, blond  
hair, plays the bass, has 16  
Grammy awards...

≈  
or  
=?

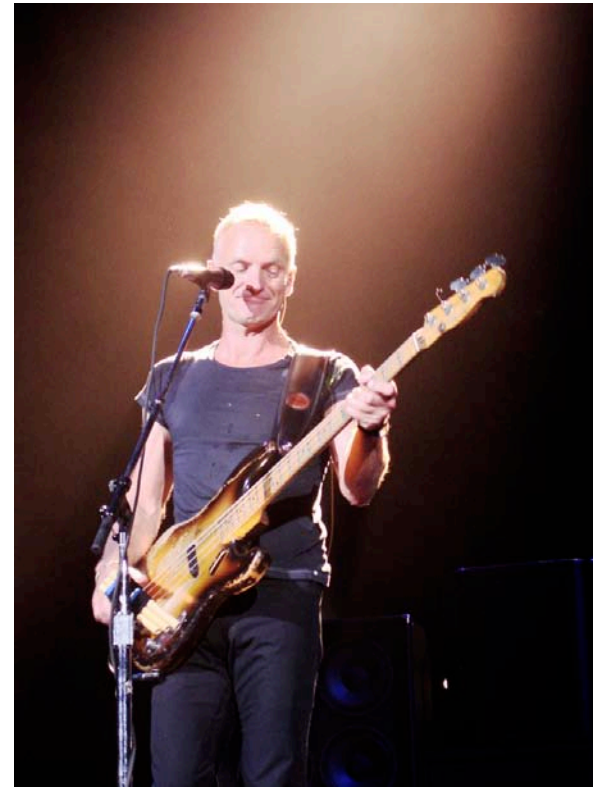


Image courtesy of [Mikey Jon Holm](#) on Flickr.

**Sting:**  
born in Newcastle, England  
on 2 October, 1951, blond  
hair, plays the bass, has 16  
Grammy awards...



# questions

what are some 'correlational' hypotheses?

why is the identity hypothesis better?

what's the similarity with Smart's motivation for the mind-brain identity theory?

# the object of experience

Fred sees a satusuma  
(and so has an  
'experience of seeing  
something orange')

the object of Fred's experience

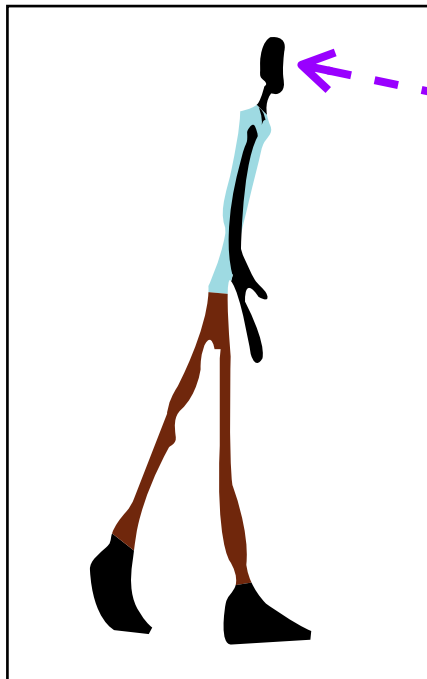


Image by MIT OpenCourseWare.

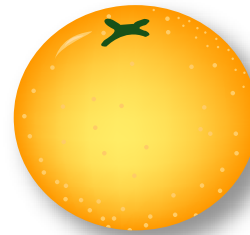


Image by MIT OpenCourseWare.

the object of the experience is colored orange, not the experience itself

# the identity theory and the object of experience

such-and-such brain process  
= the experience of seeing  
something orange

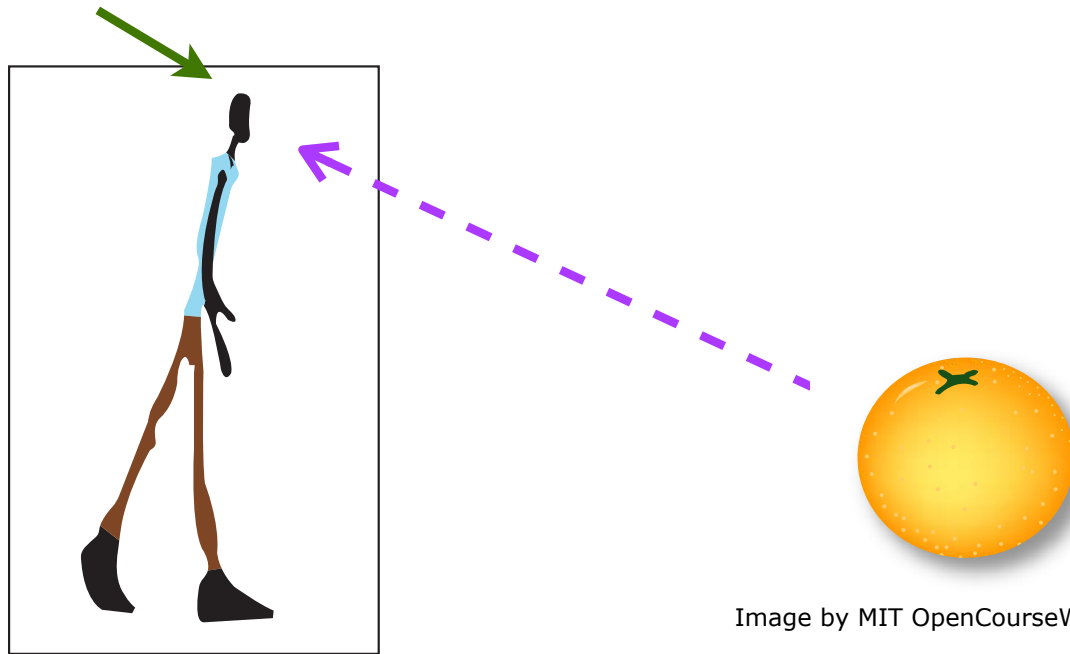


Image by MIT OpenCourseWare.

Image by MIT OpenCourseWare.

the identity theory does not identify  
the object of the experience with a  
brain process

# what about afterimages?

the identity theory identifies the experience of having an afterimage with a brain process

but what about the afterimages themselves —aren't they non-physical things?

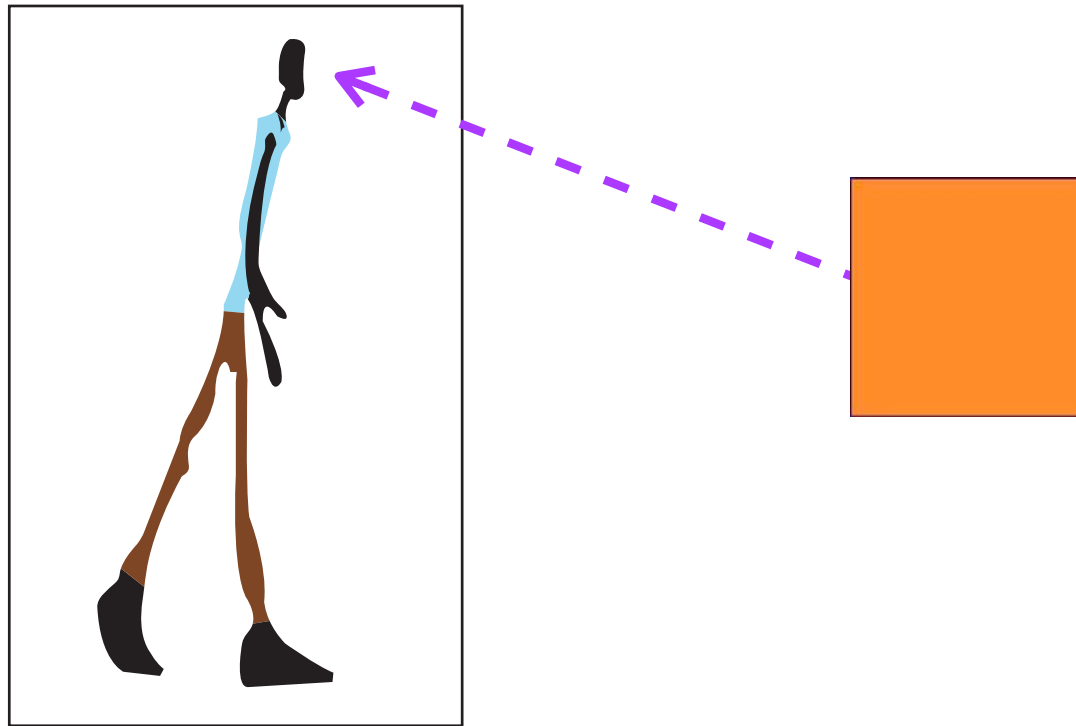


Image by MIT OpenCourseWare.

# according Smart, there are no afterimages

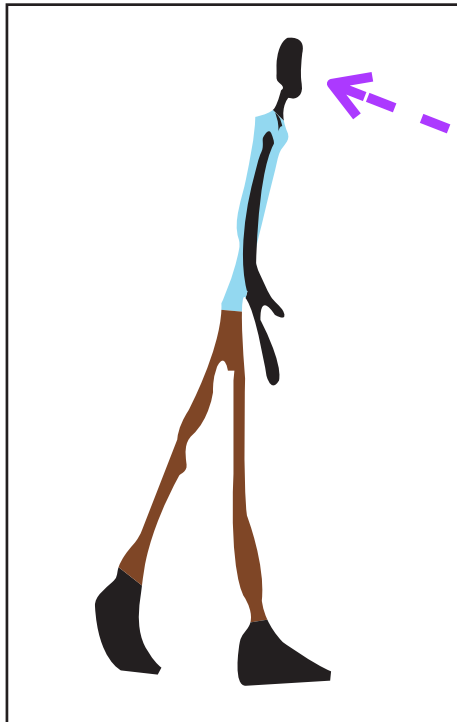
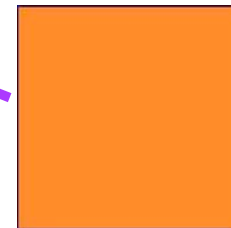


Image by MIT OpenCourseWare.



‘There is, in a sense, no such thing as an after-image or a sense-datum, though there is such a thing as the experience of having such an image’

see also Place on the ‘phenomenological fallacy’

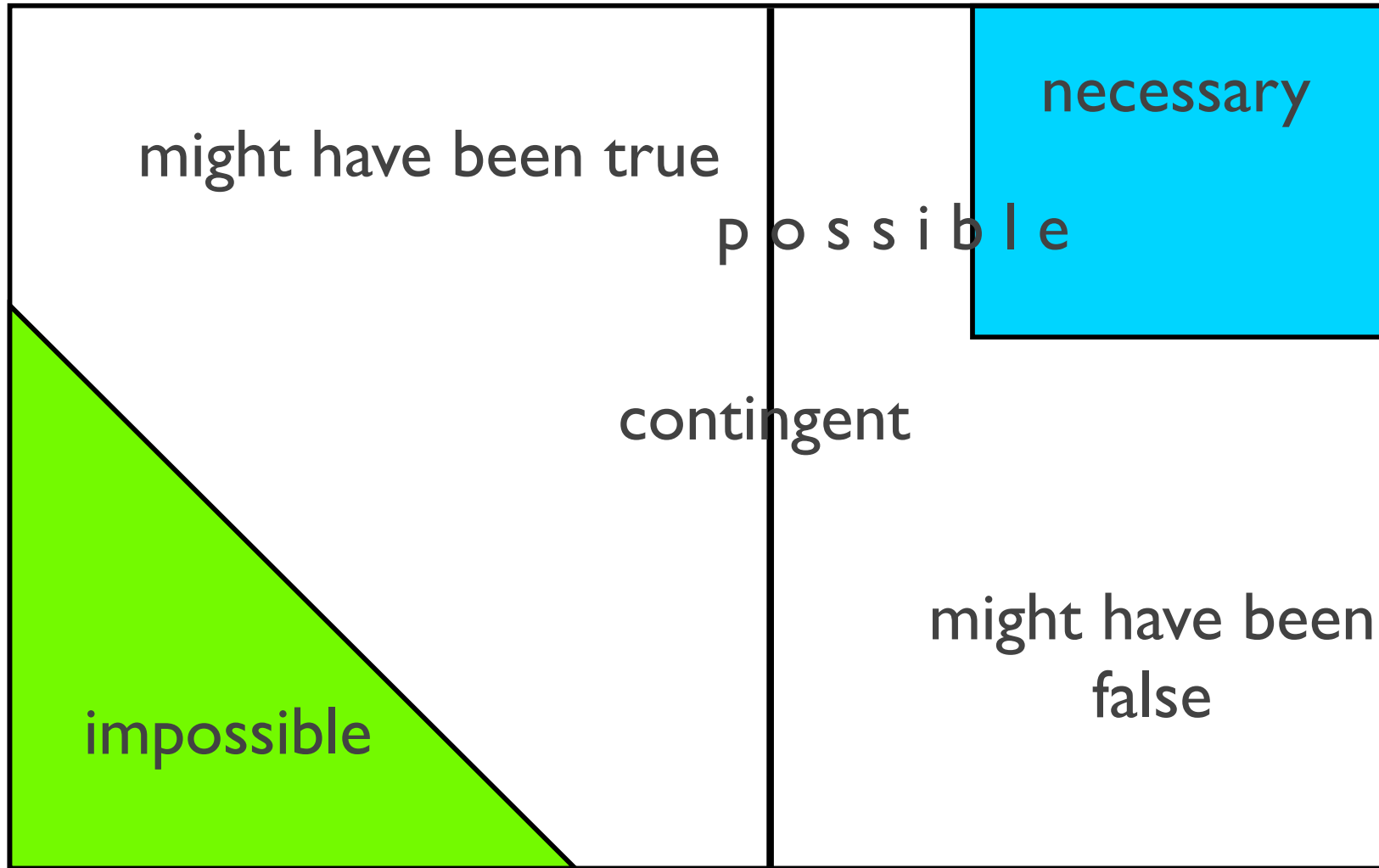
# Kripke's objection: preliminaries

Image removed due to copyright restrictions.  
A photograph of Saul A. Kripke. (1940 -).

Image removed due to copyright restrictions. Book  
cover for Naming and Necessity by Saul A. Kripke. 1980.

# recap: possibility, necessity, etc.

false : true



# possible worlds and necessity/possibility

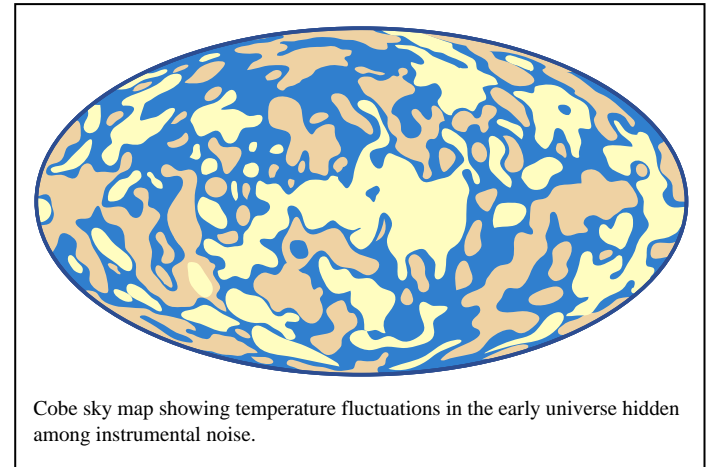


Image by MIT OpenCourseWare.

possible worlds are ‘complete stories’—maximal ways the world might have been

a proposition is necessary iff it is true at every possible world

a proposition is possible iff it is true at some possible world



## the necessity of identity

consider any object ●

● is identical to itself

further, ● couldn't possibly have been identical to something else

in other words, necessarily ● is identical to itself  
(in every possible world, ● is identical to itself)\*

do not confuse this thesis with the claim that names or other expressions in natural languages are 'rigid designators'—the necessity of identity is not a thesis about language at all

\*don't worry about worlds in which ● does not exist

Kripke, excerpt 2 from  
*Naming and Necessity*

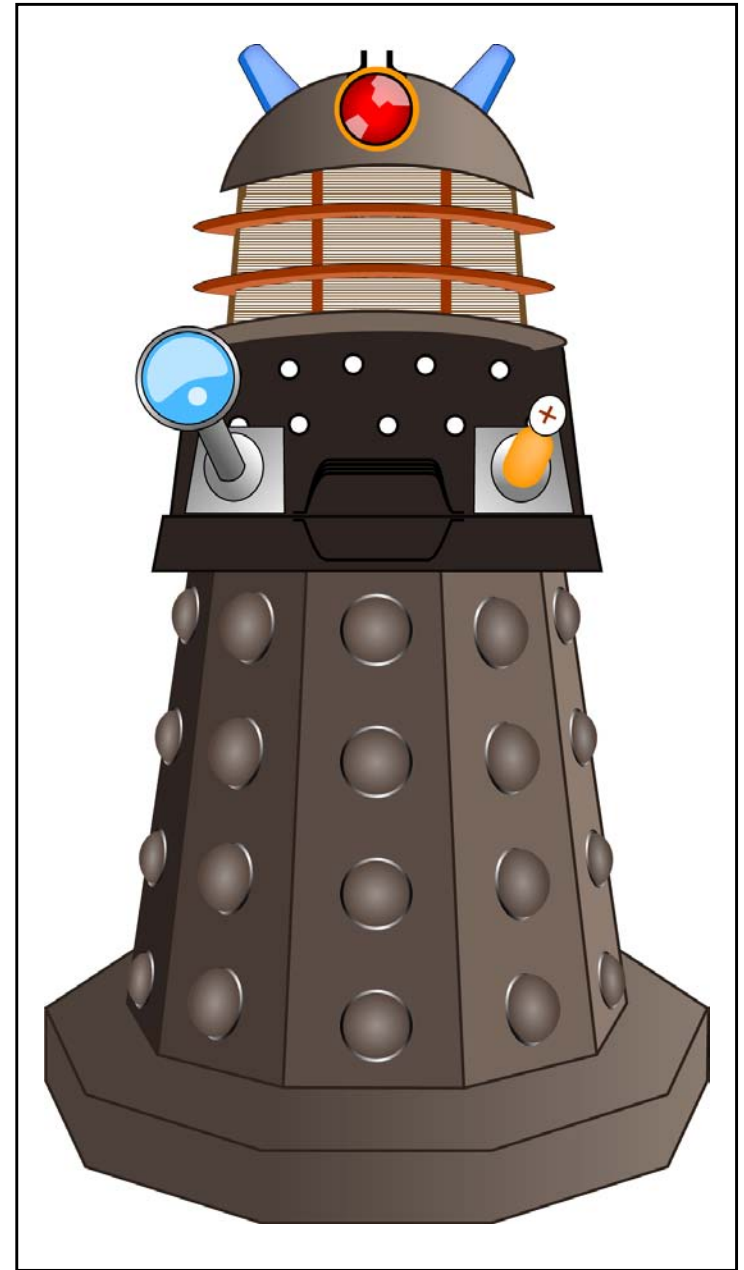


Image by MIT OpenCourseWare.

MIT OpenCourseWare  
<http://ocw.mit.edu>

24.09 Minds and Machines  
Fall 2011

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.