

# 24.09 Minds and Machines

## spring 2007

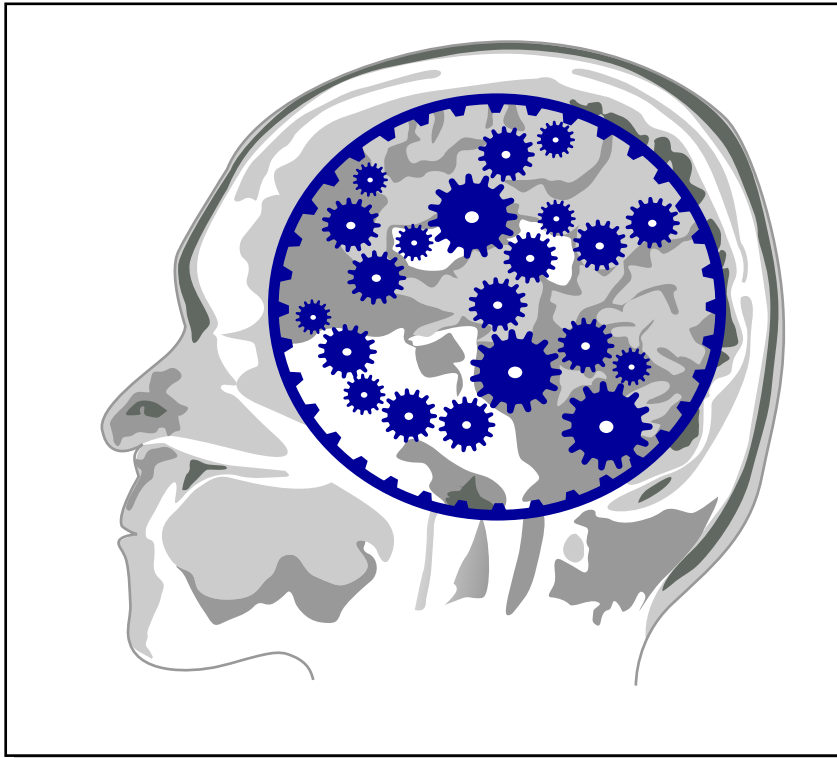


Figure by MIT OCW.

- late problem sets
- Kripke's objection

# the necessity of identity

consider any object  $\bullet$

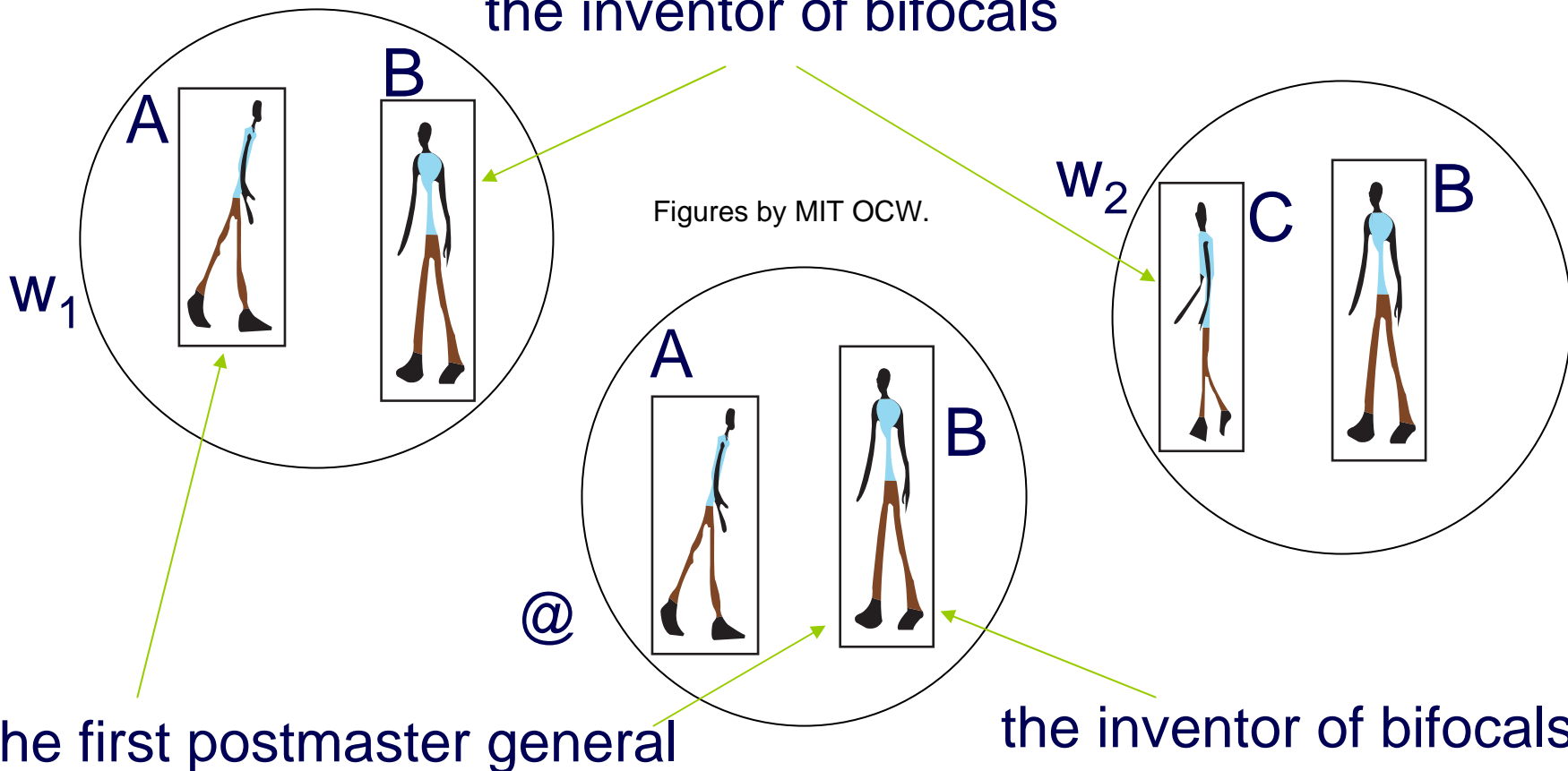
- $\bullet$  is identical to itself
- further,  $\bullet$  couldn't possibly have been identical to something else
  
- in other words, necessarily  $\bullet$  is identical to itself (in every possible world,  $\bullet$  is identical to itself)
  
- do not confuse this thesis with the claim that names or other expressions in natural languages are “rigid designators”
- the necessity of identity is not a thesis about language at all

# rigid designators

- take a term ‘T’ and imagine some possible world  $w$
- consider the questions: “who (or what) is T in  $w$ ?”, and “who/what is T in the actual world?” (or, simply, “who/what is T?”)
- if, for every world  $w$ , these questions have the same answer—namely, “a certain object  $\mathbf{o}$ ”—then ‘T’ is rigid
  - n.b. we are ignoring worlds where T does not exist
- if the questions can be read so that the answer to one is “a certain object  $\mathbf{o}$ ”, and the answer to the other is “a certain object  $\mathbf{o}^*$ ”, and  $\mathbf{o}$  and  $\mathbf{o}^*$  are different objects, then ‘T’ is not rigid

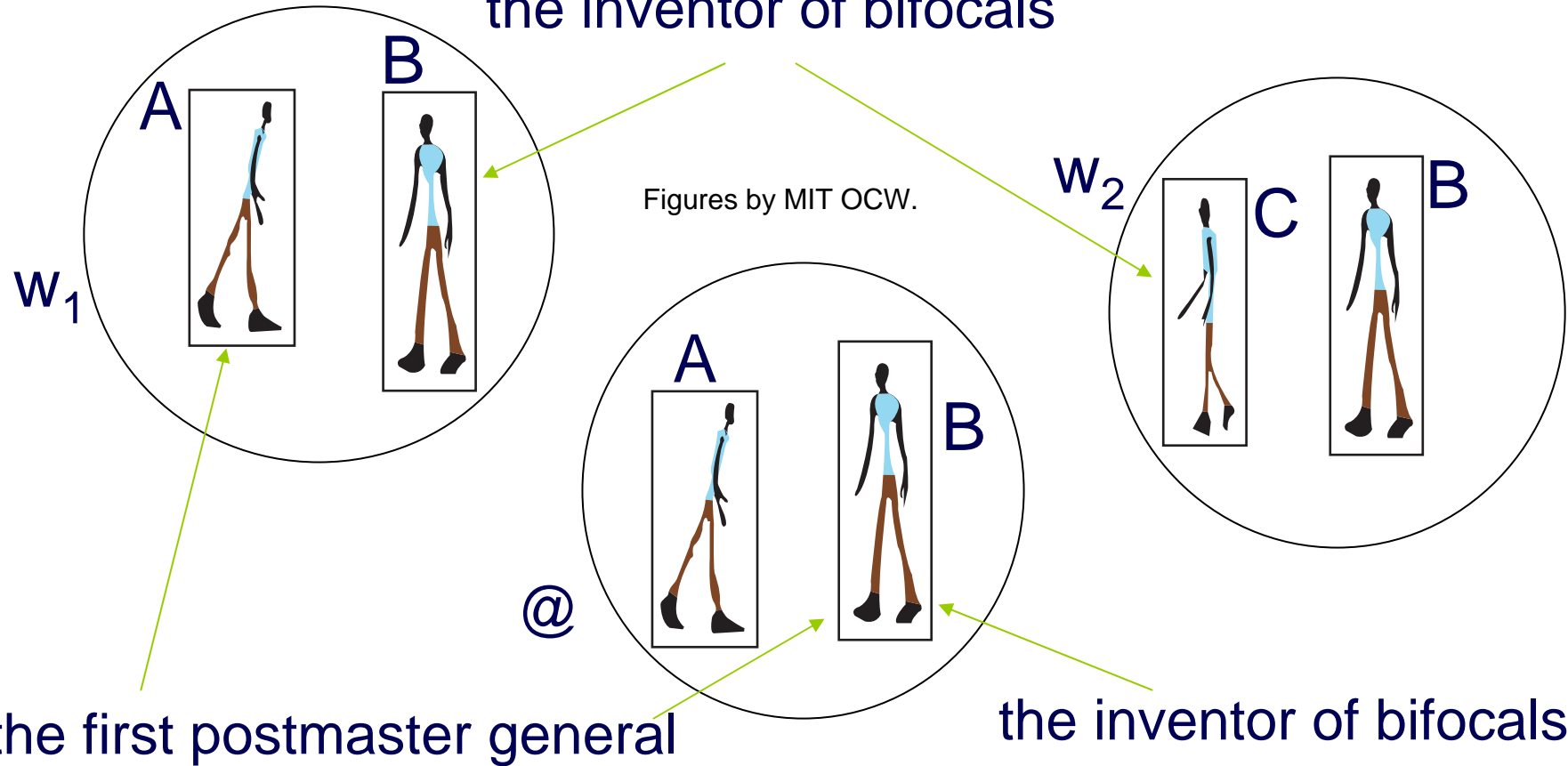
# some possible worlds

the inventor of bifocals



- Who is the inventor of bifocals in @?
- B

the inventor of bifocals



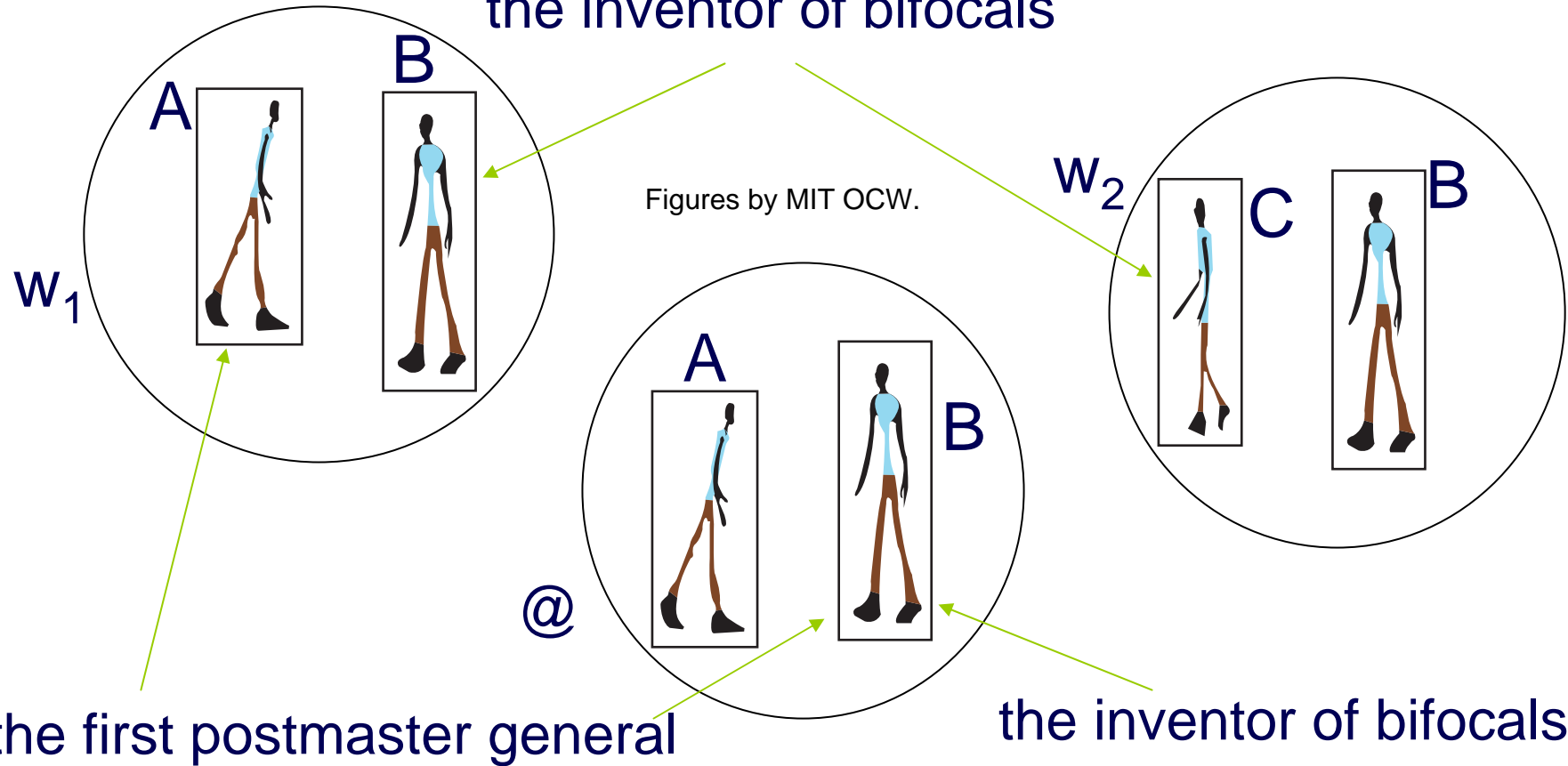
Figures by MIT OCW.

the first postmaster general

the inventor of bifocals

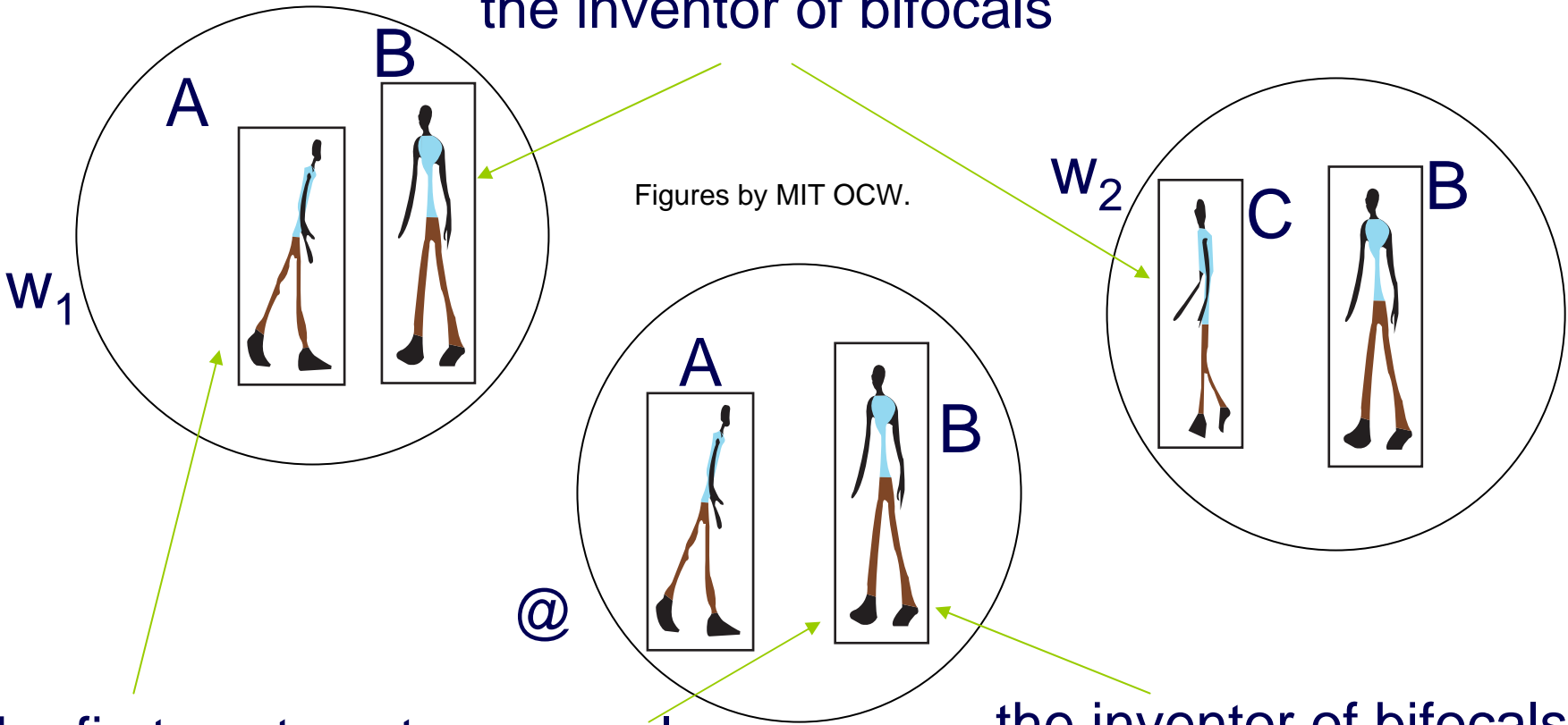
- Who is the inventor of bifocals in  $W_1$ ?
- B
- Who is the inventor of bifocals in  $W_2$ ?
- C (a person other than B)

the inventor of bifocals



➤ So, 'the inventor of bifocals' is not rigid

the inventor of bifocals

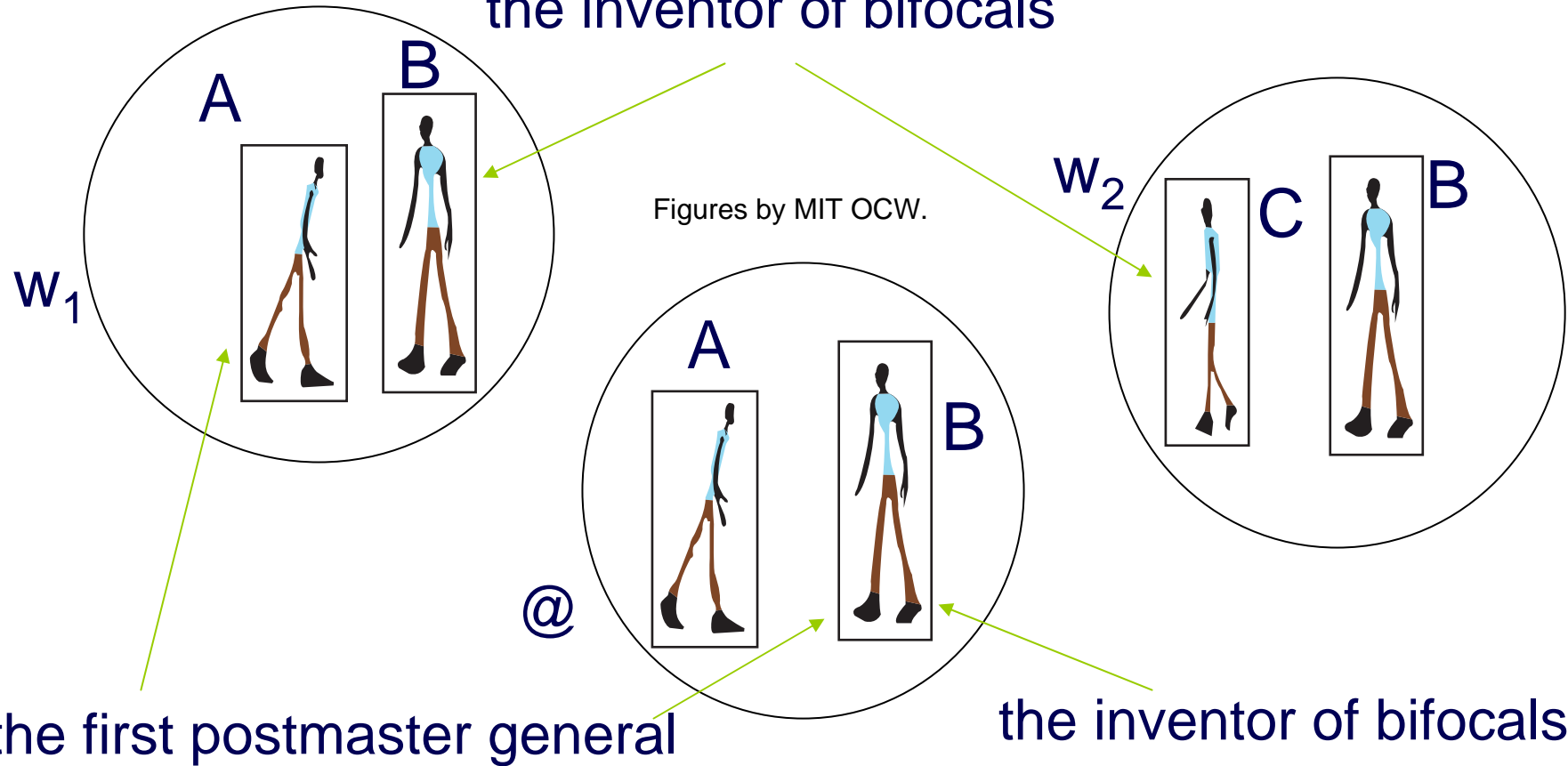


the first postmaster general

the inventor of bifocals

- Who is Benjamin Franklin in @?
- B
- Who is Benjamin Franklin in  $W_1$ ?
- B (ditto  $W_2$ , etc.)

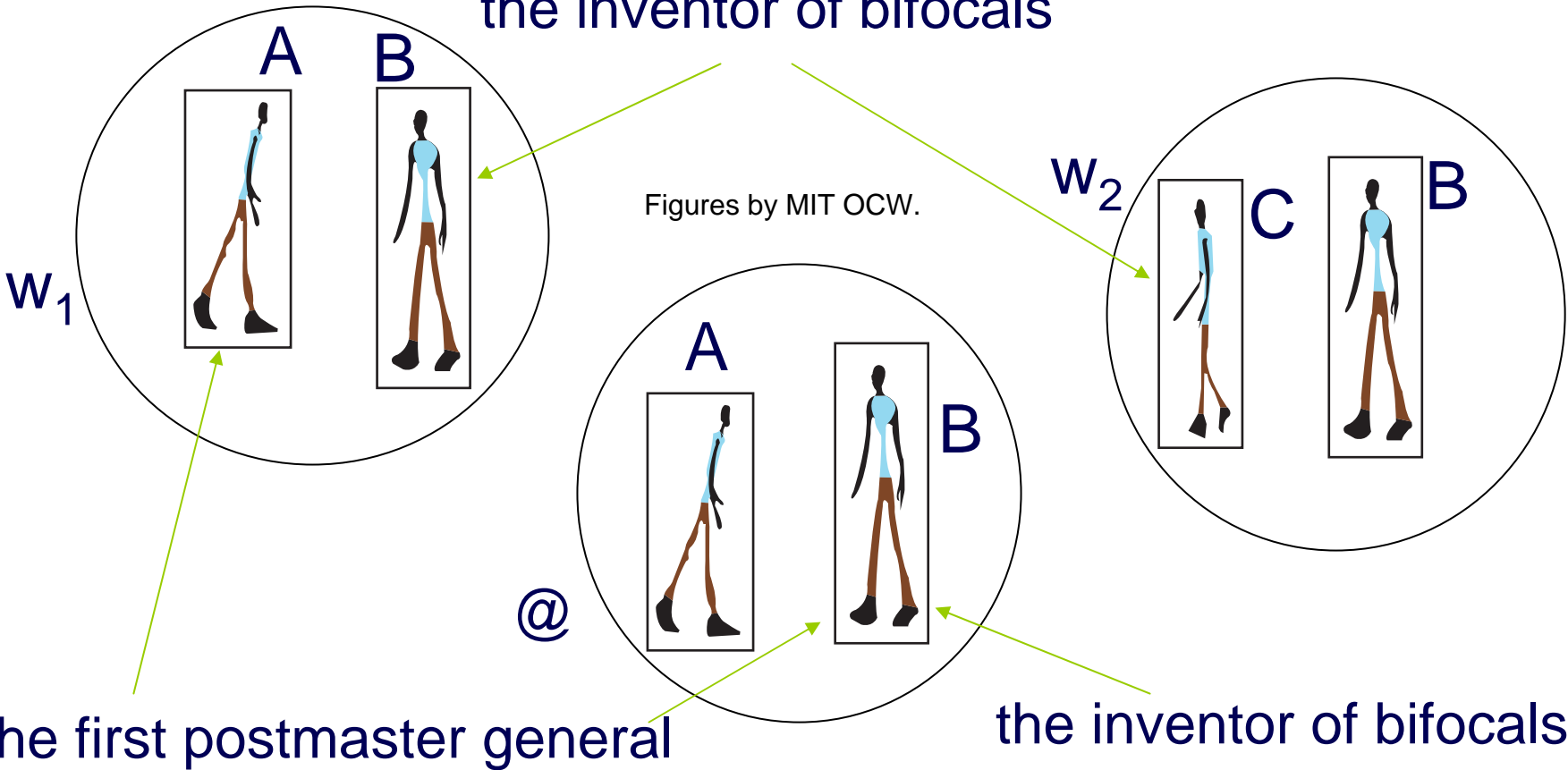
the inventor of bifocals





➤ So, 'Benjamin Franklin' is rigid

the inventor of bifocals

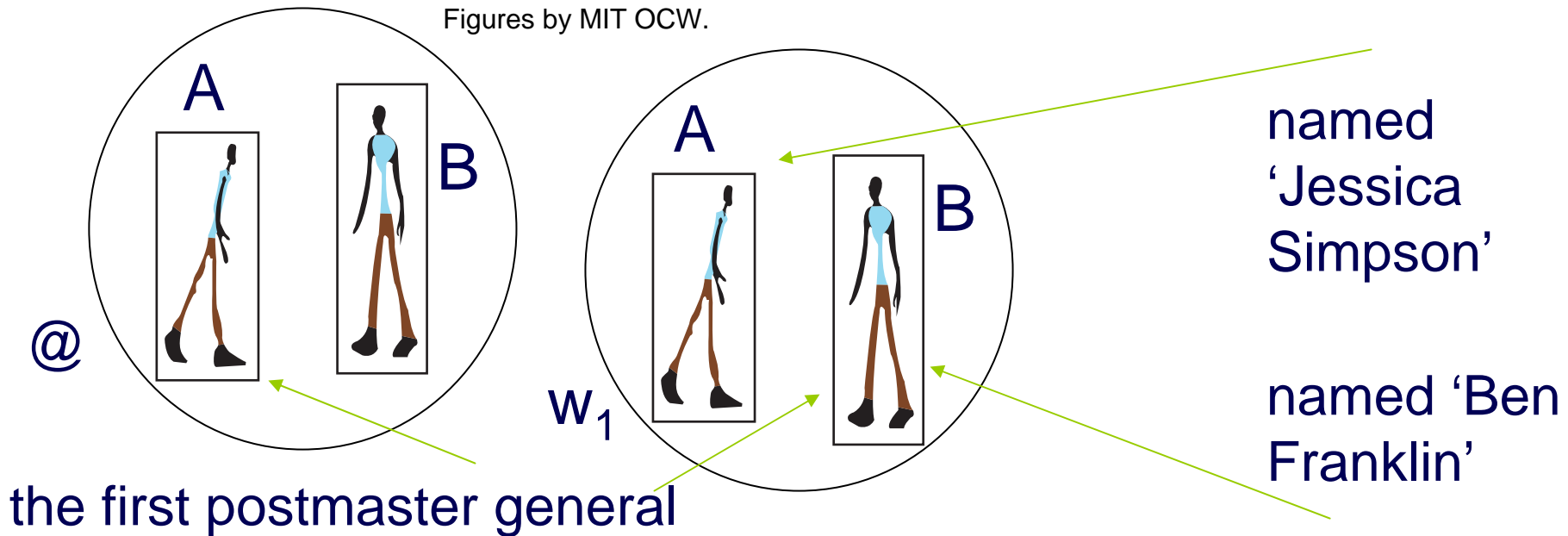


(Bosun's question) do not confuse:  
"Who is Benjamin Franklin in  $w_1$ ?"

with:

"Who is called 'Benjamin Franklin' in  $w_1$ ?"

Figures by MIT OCW.



# identity statements and rigid designators

- ‘the inventor of bifocals = the first postmaster general’ is contingent
- ‘the inventor of bifocals = Ben Franklin’ is contingent
- ‘Samuel Clemens = Mark Twain’ is necessary
- if ‘A’ and ‘B’ are rigid, then ‘A = B’ is, if true, necessarily true

according to Kripke, the following are  
rigid designators

- proper names like ‘Benjamin Franklin’, ‘Boston’, ‘Jessica Simpson’
- nouns for “natural kinds”, like ‘heat’, ‘tiger’, ‘water’, ‘c-fibers’
- nouns for sensations like ‘pain’

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so, according to Kripke, the following identities are necessarily true, if true at all

- heat=molecular kinetic energy
- pain=c-fibers firing

# argument D

1. if I can clearly and distinctly conceive a proposition **p** to be true, then **p** is possible (“everything which I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my understanding of it” (p. 16))
2. I can clearly and distinctly conceive that the proposition that my mind is not identical to my brain is true

therefore:

3. it is possible that my mind is not my brain (there is a “possible world” in which my mind is not my brain)

therefore:

4. my mind is not my brain

# argument $K_1$

1. if I can clearly and distinctly conceive a proposition  $p$  to be true, then  $p$  is possible
2. I can clearly and distinctly conceive that there is heat without mke (and vice versa)—that is, I can clearly and distinctly conceive that the proposition that heat=mke is not true

therefore:

3. there is a possible world in which heat is not mke (it is not necessarily true that heat=mke)

4. if it's true that heat=mke, then it is necessarily true

therefore (from 3, 4):

5. heat is not mke

# objection

(2) is false

what you are really imagining clearly and distinctly is a situation in which someone senses a phenomenon in the same way we sense heat, that is, feels it by means of its production of the sensation we call 'the sensation of heat', even though that phenomenon was not molecular motion...and that the person does not get the sensation of heat when in the presence of molecular motion

(see Kripke, 331)



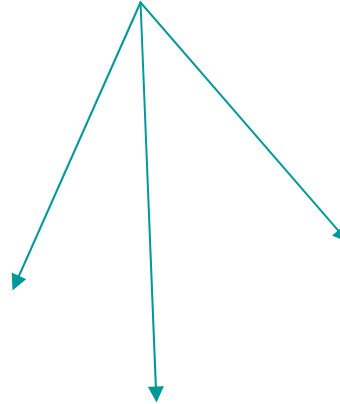
what about (1)—  
can I imagine becoming a frog?  
(which is, we may suppose, an  
impossibility)

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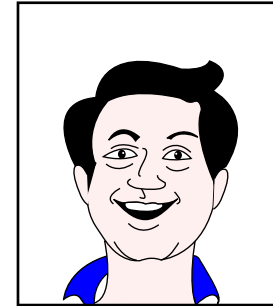
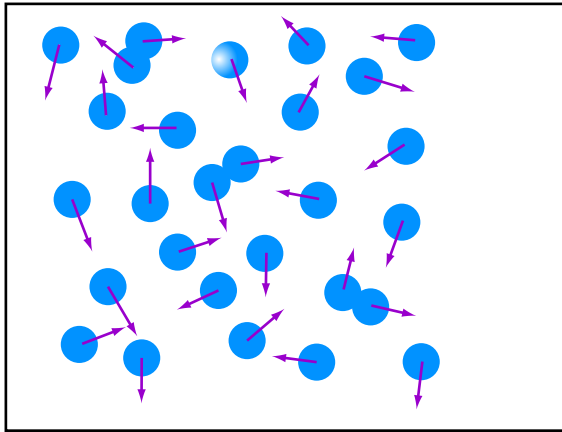
Figure by MIT OCW.

absence of mke,  
felt as heat



- this situation is possible
- but: it's not a situation in which there's heat but no mke
- it's a situation in which there's the sensation of heat but no mke

mke, not felt as heat



Figures by MIT OCW.

- this situation is possible
- but: it's not a situation in which there's mke but no heat
- it's a situation in which there's mke but no sensation of heat

# argument $K_2$

1. if I can clearly and distinctly conceive a proposition  $p$  to be true, then  $p$  is possible
2. I can clearly and distinctly conceive that there is pain without c-fiber firing (and vice versa)—that is, I can clearly and distinctly conceive that the proposition that pain=c-fiber firing is not true

therefore:

3. there is a possible world in which pain is not c-fiber firing (it is not necessarily true that pain=c-fiber firing)
4. if it's true that pain=c-fiber firing, then it is necessarily true

therefore (from 3, 4):

5. pain is not c-fiber firing

# objection?

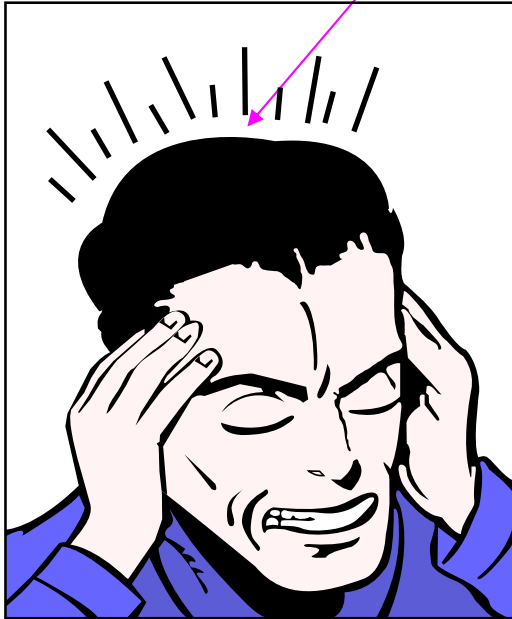
I do not see that such a reply is possible

in the case of the apparent possibility that molecular motion might have existed in the absence of heat, what seemed really possible is that molecular motion should have existed without being felt as heat

but, a situation in which c-fiber firing exists without being felt as pain is a situation in which it exists without there being any pain

(see Kripke, 331)

A

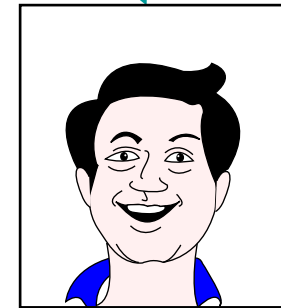


absence of  
c-fibers  
firing, felt as  
pain

i.e. pain!

c-fibers firing,  
but not felt as  
pain

B



i.e. no pain!

Figures by MIT OCW.

- situations A and B are possible (apparently)
- B is a situation in which there's c-fiber firing but no sensation of pain
- but: this is a situation in which there's c-fiber firing but no pain

# Minds and Machines

spring 2007

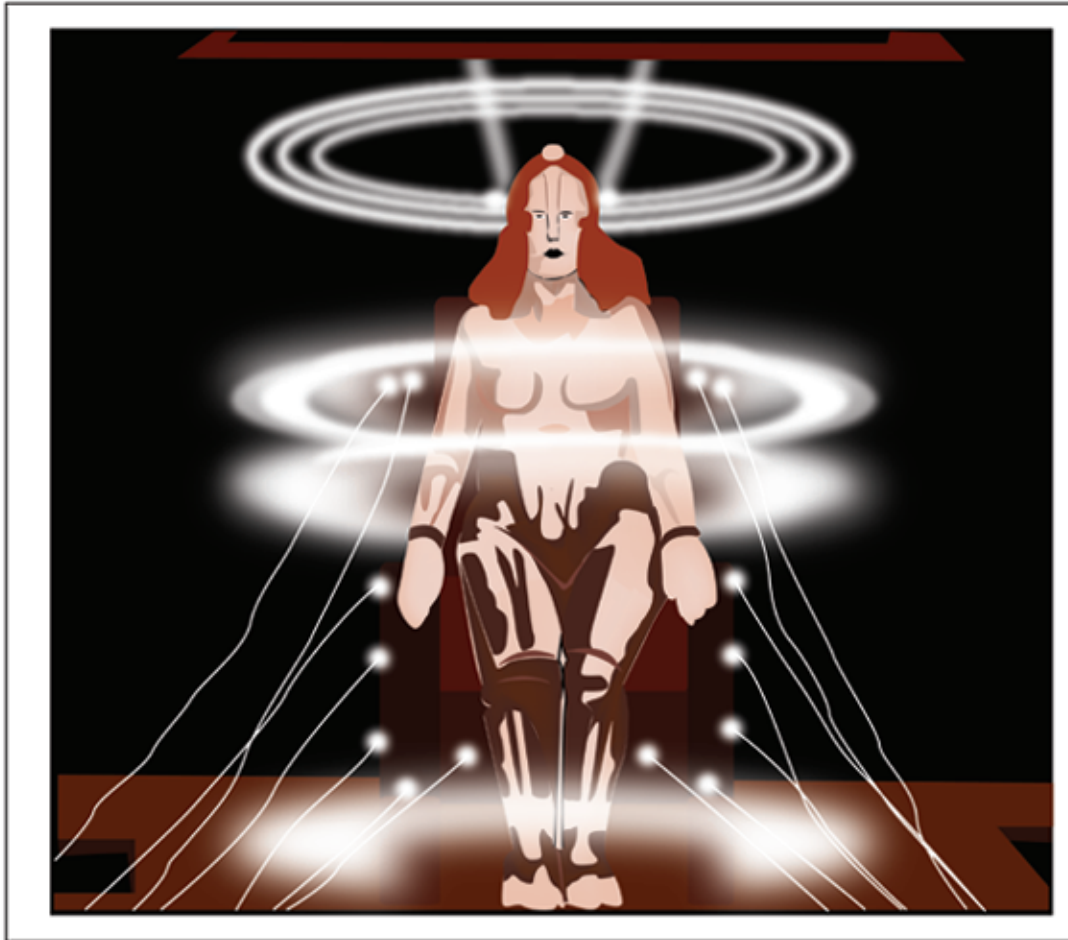


Figure by MIT OCW.

- Lewis, “Mad Pain and Martian Pain”, in e-readings today