

24.09 Minds and Machines

spring 2007

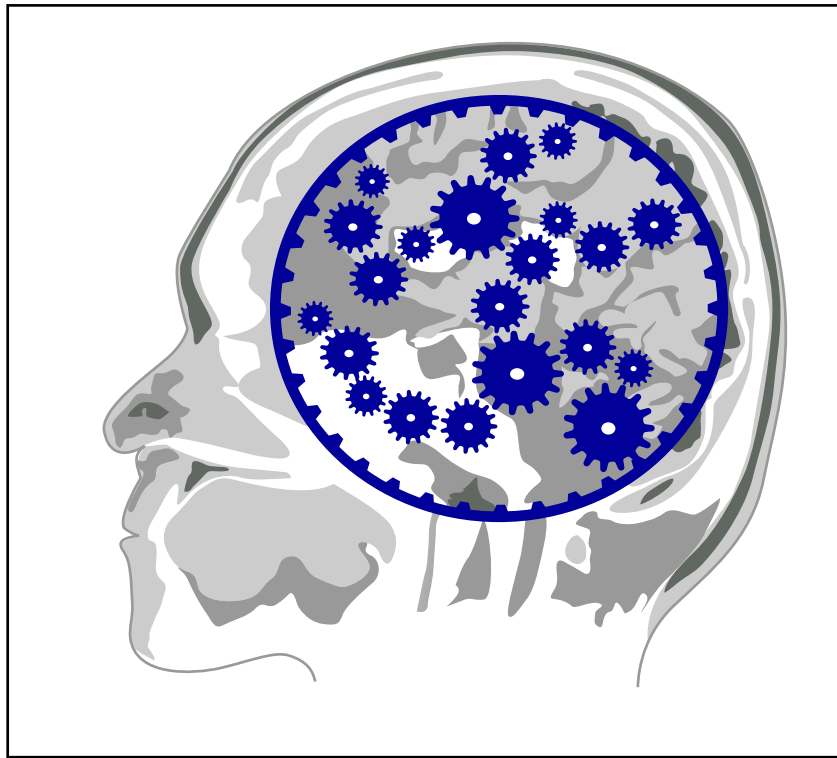


Figure by MIT OCW.

- email us!
- sections

the systems reply

- the “whole system” understands Chinese, not Searle
- don’t get hung up on “understanding Chinese”
 - it’s simpler take the system to believe that it’s raining in Beijing, e.g.

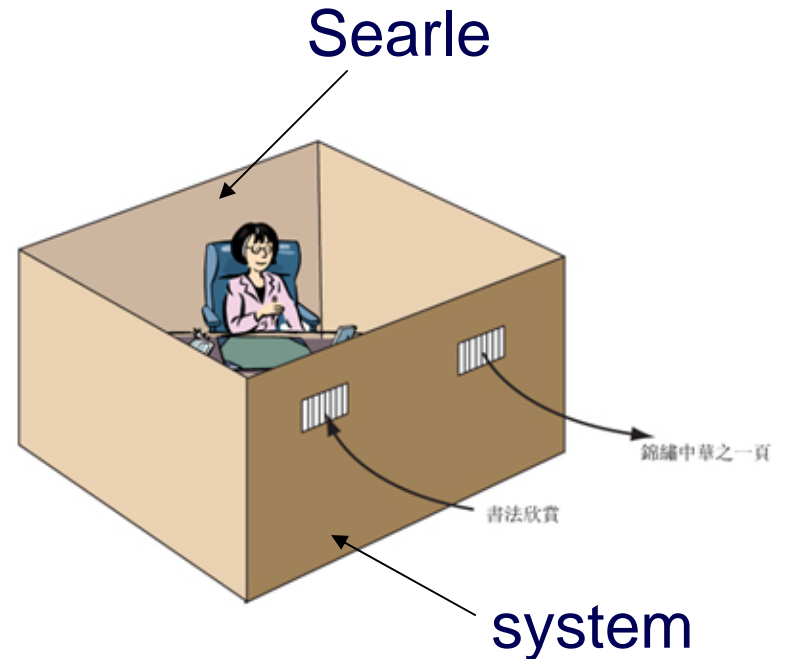


Figure by MIT OCW.

Searle's reply...

“...is quite simple: Let the individual internalize all of these elements of the system...he understands nothing of the Chinese, and a fortiori neither does the system, because there isn't anything in the system that isn't in him”

(from Searle, “Minds, Brains, and Programs”)

Searle
(memorizes
instructions)

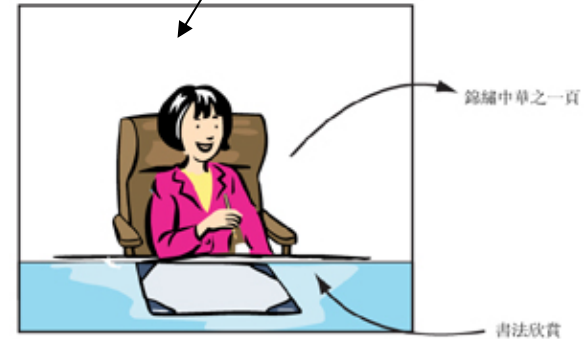


Figure by MIT OCW.

Searle's reply...

... appears to rely on the mistaken principle that if x is part of y , and y isn't F , then x isn't F . (My liver is part of me, and I don't weigh 1 pound, but maybe my liver does.)

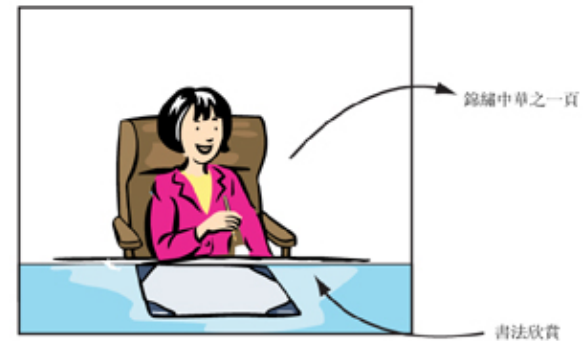


Figure by MIT OCW.

the robot reply

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Example robot.

“Inside a room in the robot’s skull I shuffle symbols...As long as all I have is a formal computer program, I have no way of attaching any meaning to any of the symbols. And the fact that the robot is engaged in causal interaction with the outside world won’t help me...”

STRONG STRONG AI

there is a computer program (i.e. an algorithm for manipulating symbols) such that any (possible) computer running this program literally has cognitive states

WEAK STRONG AI

there is a computer program such that any (possible) computer running this program and embedded in the world in certain ways (e.g. certain causal connections hold between its internal states and states of its environment) literally has cognitive states

There is one aspect of Searle's case with which I am sympathetic. I have my doubts as to whether there is anything it is like to be the Chinese system, that is, whether the Chinese system is a phenomenally conscious system. My doubts arise from the idea that perhaps consciousness is more a matter of implementation of symbol processing than of symbol processing itself.

Block, “The mind as...”

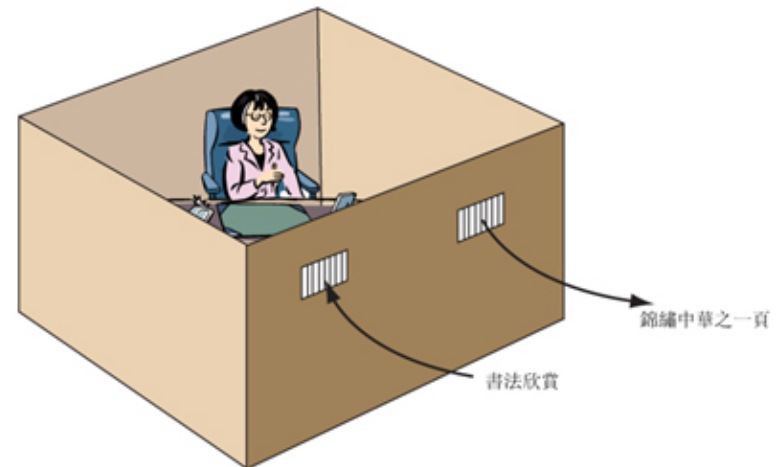


Figure by MIT OCW.

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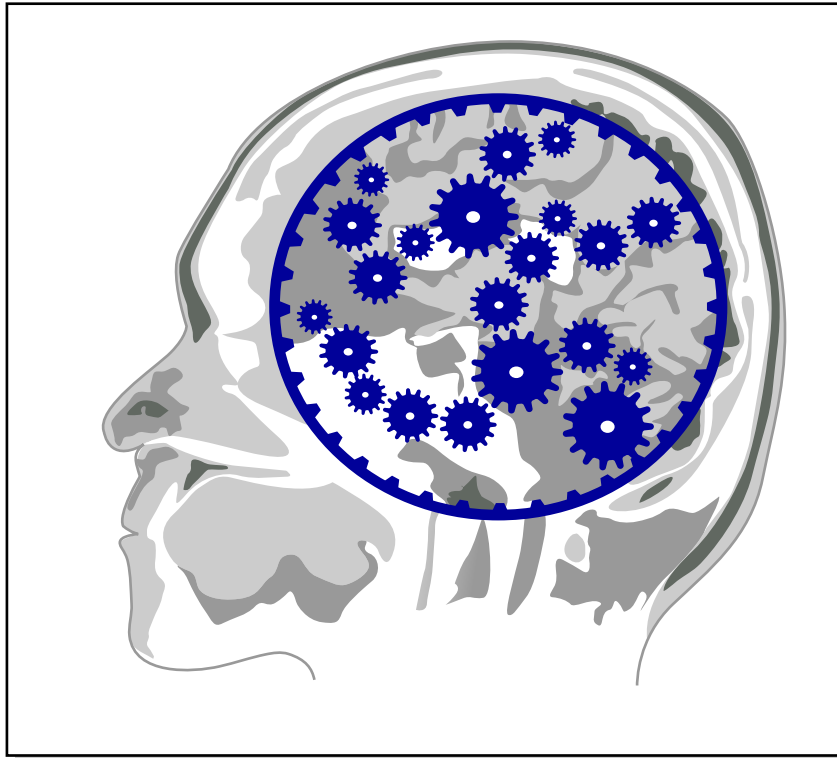


Figure by MIT OCW.

- dualism

dualism

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Rene Descartes (1596-1650).

- *Meditations (1642)*
“Wherein are demonstrated the existence of God and the Distinction of Soul from Body”
- *Principles of Philosophy (1644)*
- *Passions of the Soul (1649)*

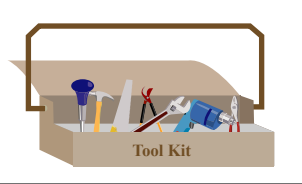
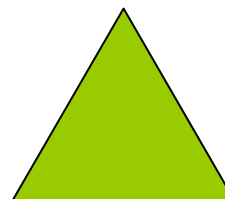


Figure by MIT OCW.

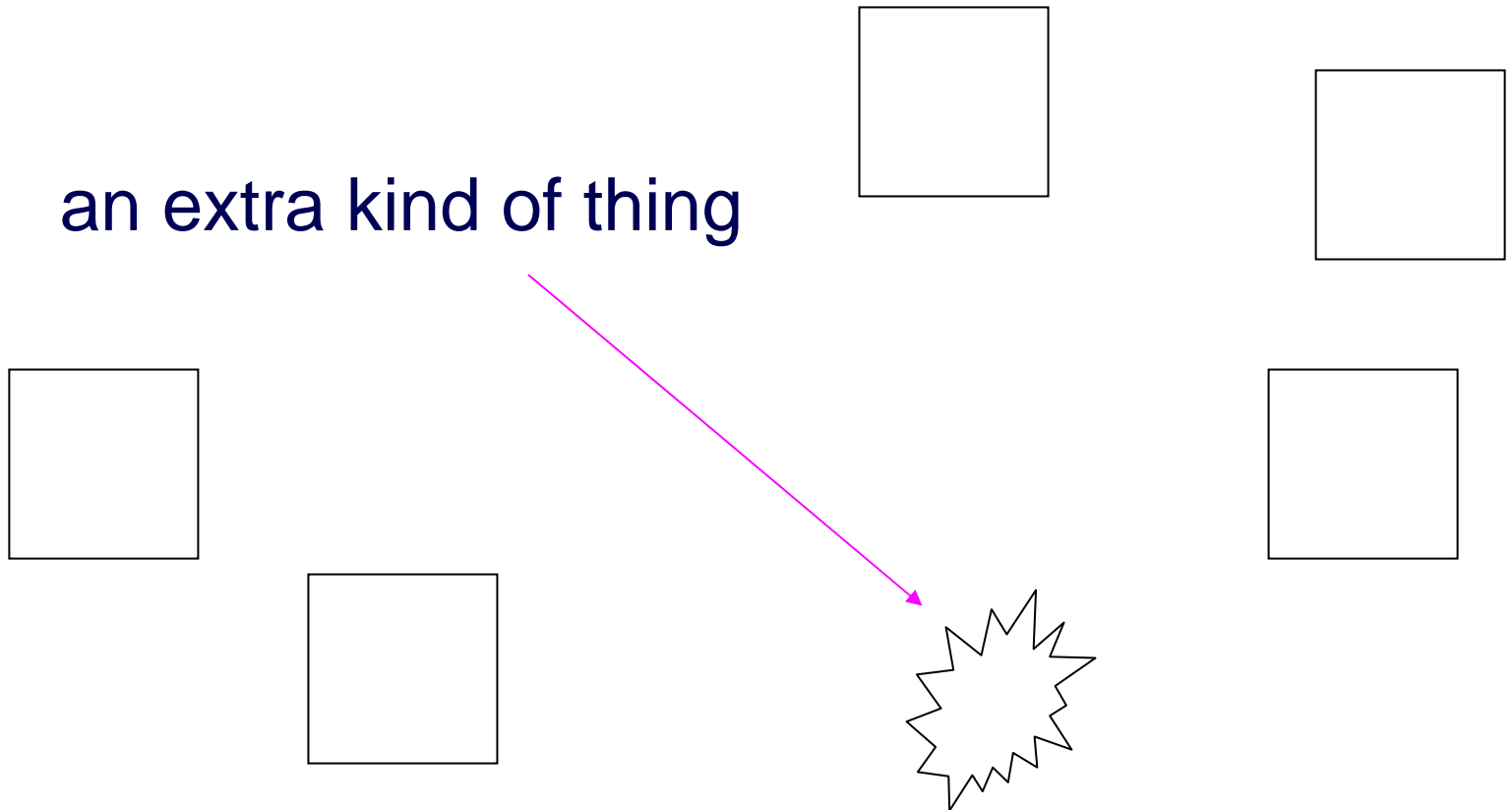
from the philosophical toolkit:

- properties and particulars



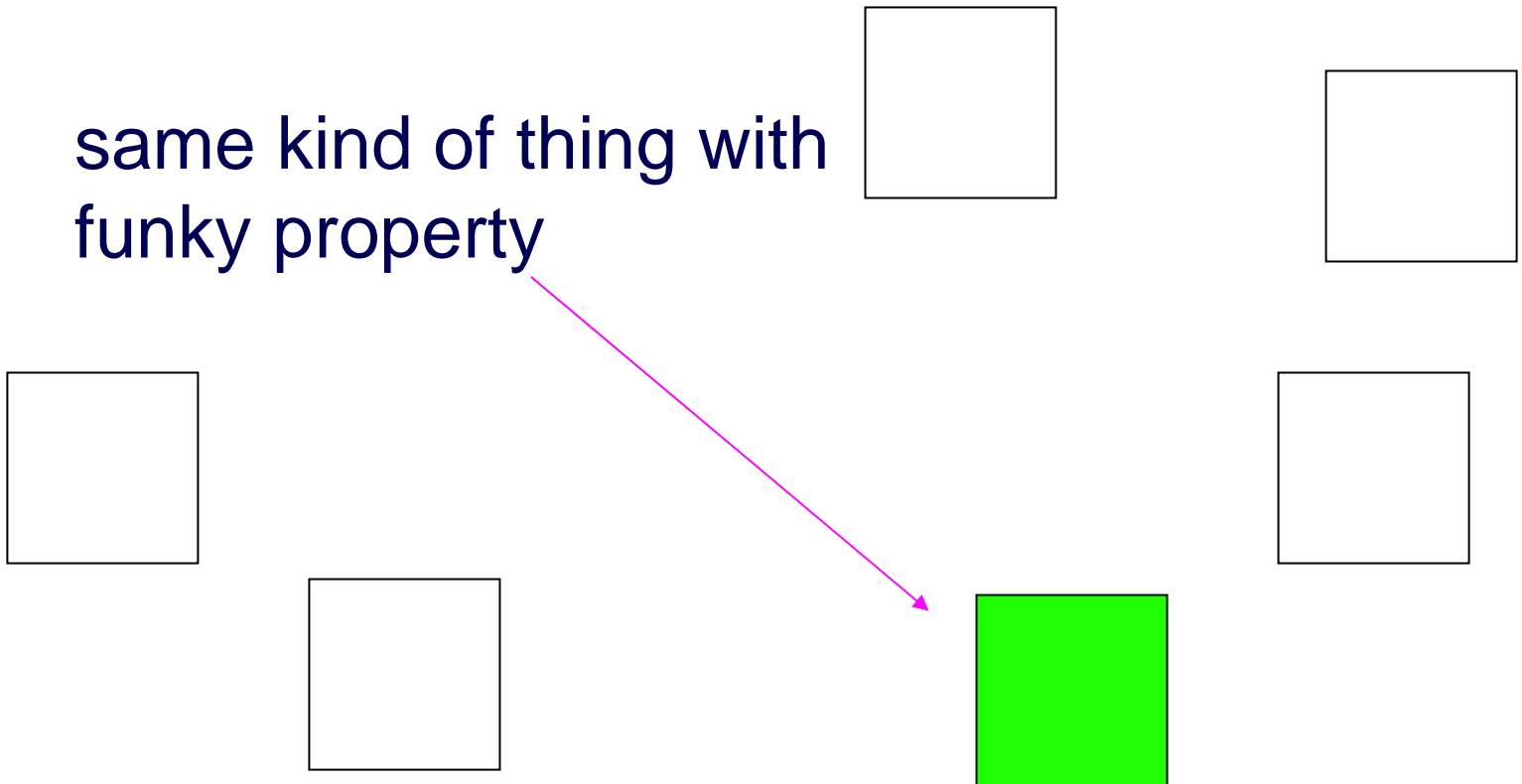
substance dualism

an extra kind of thing



property/attribute dualism

same kind of thing with
funky property



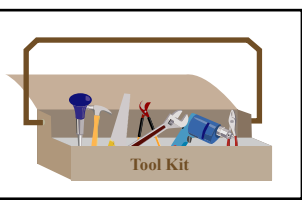


Figure by MIT OCW.

from the philosophical toolkit:

- propositions—the things believed (desired, etc.) and asserted: that snow is white, that Cambridge is a city, that the earth is flat,...
- propositions can be true or false
- propositions are pieces of information (or misinformation)

argument A

1. I cannot doubt that my mind exists
2. I can doubt that my brain exists
[or that anything physical exists, come to that]

therefore:

3. my mind is not my brain

an argument like this is suggested in the passage on p. 11 that begins “I am not that structure of limbs...” and ends “for all that I am still something”

but the next few sentences seem to take it back

argument B

1. I cannot doubt that the masked man is before me
2. I can doubt that my father is before me

therefore:

3. the masked man is not my father

Image removed due to copyright restrictions.
Darth Vader from Star Wars.

- the problem is that expressions like ‘I cannot doubt that____’ create intensional contexts
- an intensional context is a sentence S containing a referring expression N such that replacing N with a co-referring expression M does not necessarily yield a sentence that has the same truth value as S
- so even if ‘my mind is my brain’ is true, and ‘I cannot doubt that my mind exists’ is true, it does not follow that ‘I cannot doubt that my brain exists’ is true

- nb: do not confuse ‘intensional’/‘intensionality’ with ‘intentional’/‘intentionality’
- verbs for “propositional attitudes”, like ‘believes’, ‘hopes’, and so on, create intensional contexts, and of course the propositional attitudes are representational mental states and so are intentional
- but there are intensional contexts that have nothing to do with intentionality—as in the second example to follow

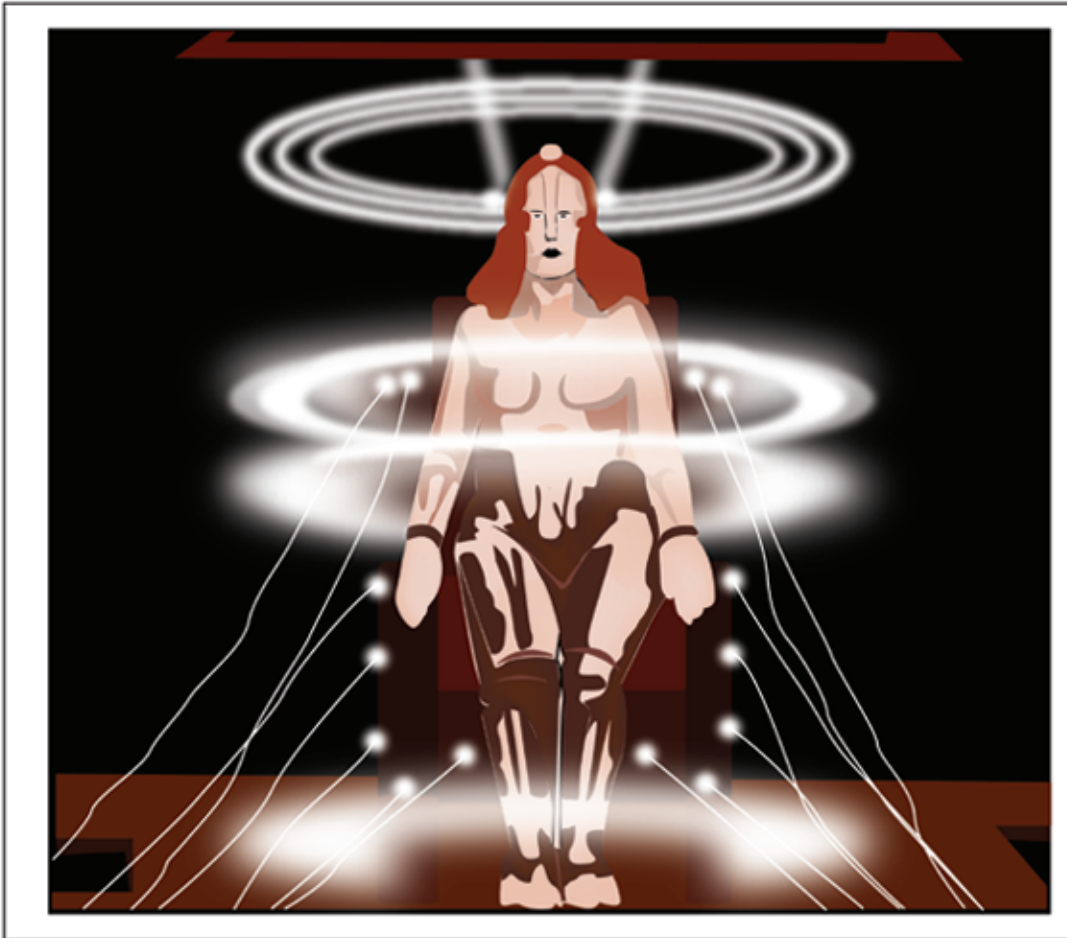
- example 1: ‘Lois believes Superman will save the world’ is an intensional context, because replacing ‘Superman’ with ‘the bespectacled Daily Planet reporter’ takes a truth to a falsehood

Image removed due to copyright restrictions.
Superman from Marvel Comics.

- example 2: ‘It is necessary that eight is eight’ is an intensional context, because replacing the first occurrence of ‘eight’ with ‘the number of planets’ takes a truth to a falsehood (the number of planets might have been seven)

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- tomorrow: dualism and behaviorism

Figure by MIT OCW.