

24.09 Minds and Machines

Fall 11 HASS-D CI

externalism

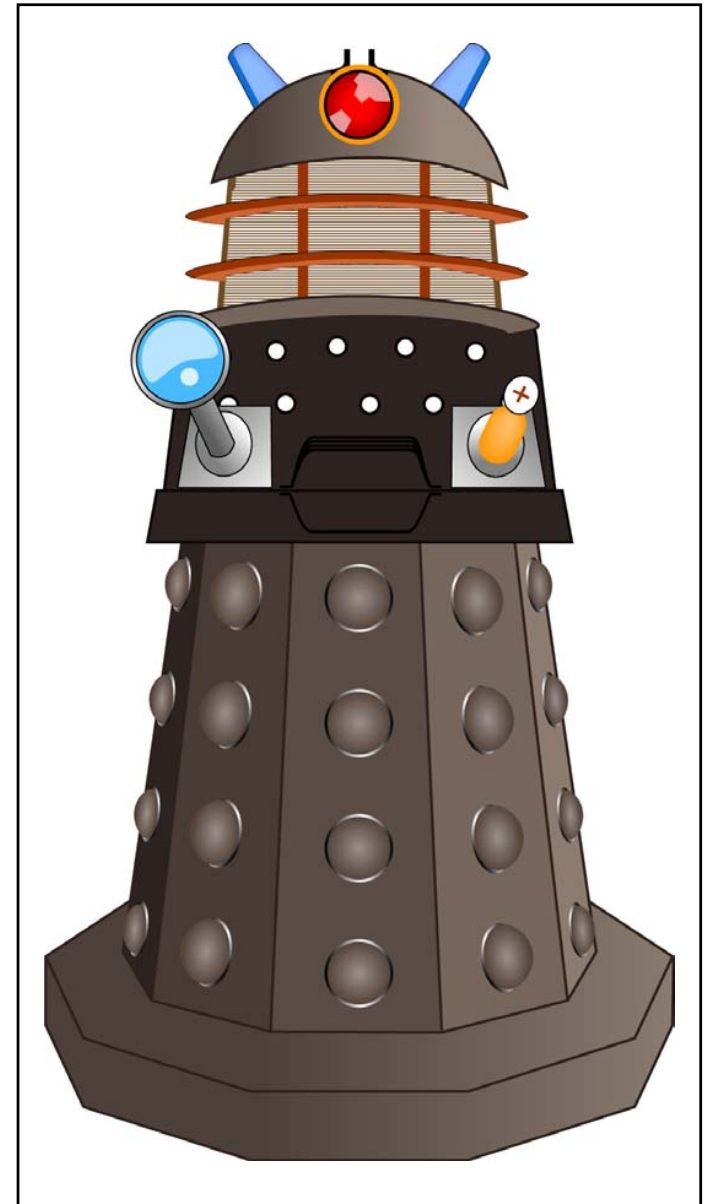


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the meaning of 'meaning'

this contains the original presentation of the 'twin earth' thought experiment

Putnam drew the conclusion that meanings aren't 'in the head' (i.e. that the property of meaning such-and-such by word w is extrinsic), not that thoughts aren't in the head

this paper is quite difficult, and we won't discuss everything in it

we will concentrate on a simplified presentation of the famous 'twin earth' example

intension and extension

the extension of a term (e.g. 'rabbit', 'creature with a kidney') is 'the set of things the term is true of'

so 'creature with a kidney' and 'creature with a heart' have the same extension

the intension of a term is its meaning, in the ordinary sense of 'meaning'

so 'creature with a kidney' and 'creature with a heart' have different intensions

extra slide not shown in class

'two unchallenged assumptions'

1. knowing the meaning (intension) of a term is just a matter of being in a certain psychological state
2. the intension of a term determines its extension (in the sense that sameness of intension entails sameness of extension)

extra slide not shown in class

Putnam's challenge

'I shall argue that these two assumptions are not jointly satisfied by any notion, let alone any notion of meaning. The traditional concept of meaning is a concept which rests on a false theory.'

extra slide not shown in class

methodological solipsism

‘no psychological state, properly so-called, presupposes the existence of any individual other than the subject to whom that state is ascribed’

if this is right, then:

being jealous of Smith

seeing Jones

knowing that the cat is on the mat

remembering last night’s party

are not psychological states, properly so-called

psychological states, according to m.s., are ‘narrow’

extra slide not shown in class

consequences of (1) and (2)

suppose $Oscar_1$ and $Oscar_2$ are in the same narrow psychological states, and that $Oscar_1$ knows that intension I is the meaning of term A

by (1), if $Oscar_1$ knows that I is the meaning of A , then $Oscar_2$ knows that I is the meaning of A

if $Oscar_1$ and $Oscar_2$ both know that I is the meaning of A then $Oscar_1$ and $Oscar_2$ both use A with the same meaning or intension

by (2), A as used by $Oscar_1$ has the same extension as A as used by $Oscar_2$

extra slide not shown in class

what Putnam takes the twin earth example to show

‘We claim that it is possible for two speakers to be in exactly the same psychological state (in the narrow sense), even though the extension of the term *A* in the idiolect of the one is different from the extension of the term *A* in the idiolect of the other. Extension is not determined by psychological state.’

extra slide not shown in class

twin earth



Image by MIT OpenCourseWare.

earth



Image by MIT OpenCourseWare.

twin earth

a perfect duplicate of earth,
except...

XYZ instead of H₂O



Image by MIT OpenCourseWare.

earth



Image by MIT OpenCourseWare.

twin earth

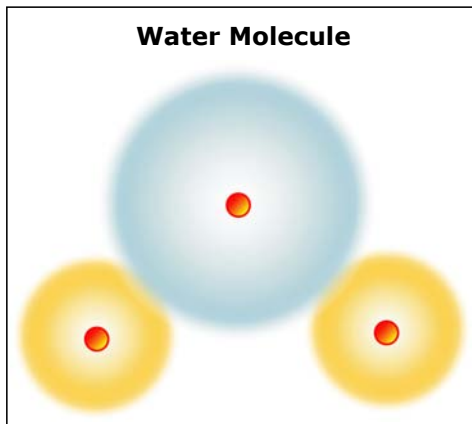


Image by MIT OpenCourseWare.

...the oceans and lakes contain 'XYZ', which is a very different chemical kind from H₂O, although superficially like it at normal temperatures and pressures



Image by MIT OpenCourseWare.

Image removed due to copyright restrictions.
Singin' In The Rain film poster.

let us ignore the complication
that our bodies contain lots of
 H_2O

further, let's pretend that no
one (on earth or twin earth)
knows any chemistry
(accomplished in Putnam's
example by 'rolling the time
back to about 1750')

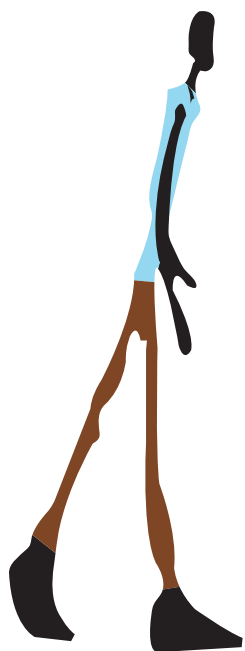
the two Oscars speculate about chemistry



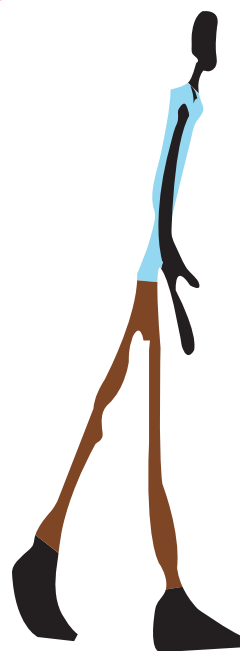
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'water
contains hydrogen'

'water
contains hydrogen'



true just in
case H₂O
contains
hydrogen



true just in
case XYZ
contains
hydrogen

Images by MIT OpenCourseWare.

Oscar₁ (on earth)

Oscar₂ (on twin earth)

conclusion

Oscar₁ and Oscar₂ are making different claims
(Oscar₁'s is true and Oscar₂'s is false)

it would seem to follow that 'water' has different
meanings on earth and twin earth

just as 'chicory' has different meanings in US and
British English

'Cut the pie any way you like,
'meanings' just ain't in the head!



beliefs ain't in the head either

but doesn't Putnam's example also show that thoughts aren't in the head? Oscar₁ has beliefs about water, Oscar₂ has beliefs about twater

it was soon realized that Putnam's example, if it shows anything at all, shows that some mental properties (like the property of believing that water is wet) are not intrinsic

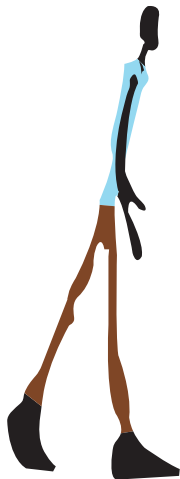


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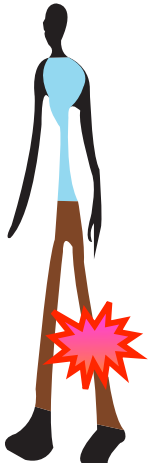
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Putnam and Burge

Putnam's example arguably shows that differences in the subject's environment (e.g. H₂O vs. XYZ) can by themselves make a mental difference

Burge's examples purport to show that differences in the subject's linguistic community can by themselves make a mental difference

Image by MIT OpenCourseWare.

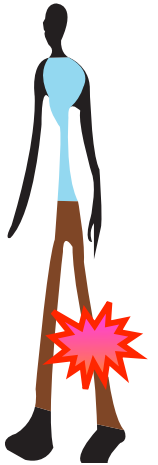


Alfred has various beliefs about arthritis: that he has had arthritis for years, that stiffening joints are a symptom of arthritis... (all true)

and:

that he has arthritis in his thigh (false, because arthritis is an inflammation of the joints)

Image by MIT OpenCourseWare.

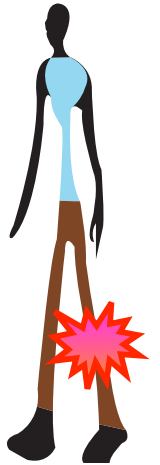


a ‘counterfactual situation’ (a non-actual possible world) in which Alfred is exactly the same in all intrinsic respects, but lives in a slightly different linguistic community

in this community, ‘arthritis’ applies ‘not only to arthritis, but to various other rheumatoid ailments’

in the language of this community, ‘Alfred has arthritis in his thigh’ is true

Image by MIT OpenCourseWare.



an ‘interpretation of the counterfactual case’

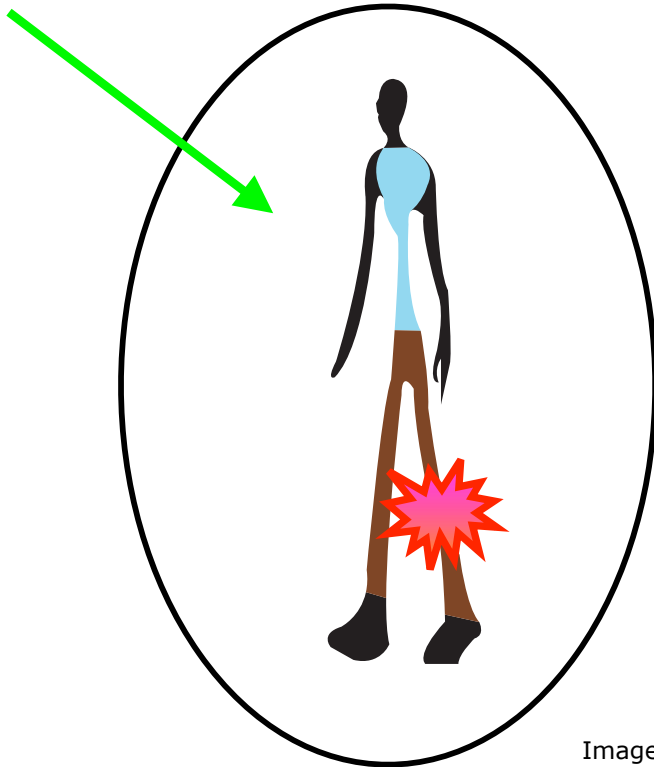
Alfred has no beliefs about arthritis (in particular, he doesn’t believe that he has arthritis in his thigh)

instead, he has beliefs about the sort of general rheumatoid ailment that is labeled in his community by the word ‘arthritis’

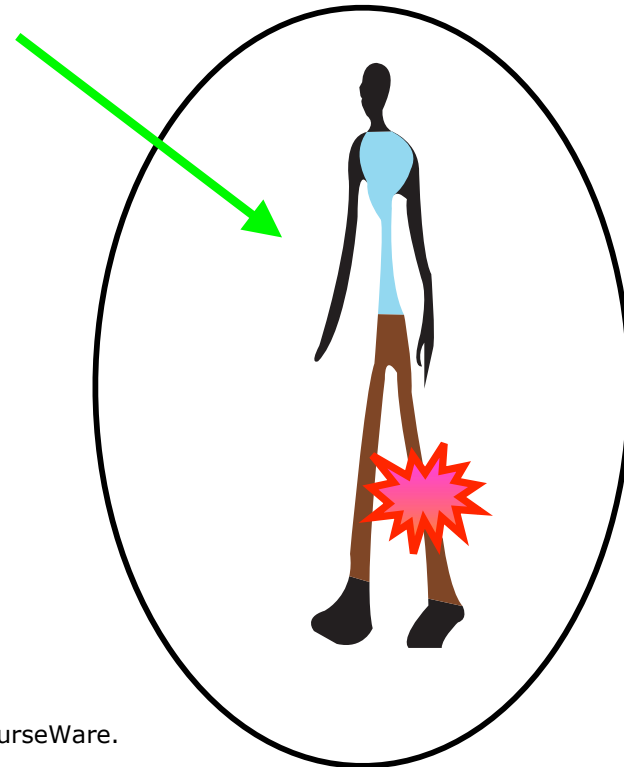
if we call that ailment ‘tharthritis’, then Alfred believes that he has tharthritis in his thigh

the three stages pictured

Alfred with
arthritis beliefs



Alfred (a duplicate of Alfred as he
is in @) without arthritis beliefs



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@ (the actual world)

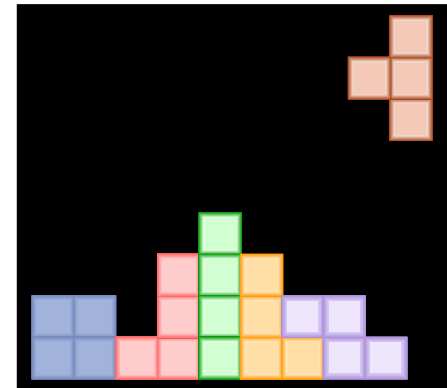
w_1 (the counterfactual
situation)

three positions:

1. internalism
2. externalism (of the Putnam and Burge sort)
3. 'we propose to pursue a third position...an active externalism, based on the active role of the environment in driving cognitive processes'

the tetris example

1. mental rotation to assess fit into ‘socket’
 2. physical rotation (actual tetris)
 3. ‘a neural implant which can perform the rotation as fast as the computer in [2]’
- ‘...all three cases are similar’
- ‘cognitive processes ain’t (all) in the head!’



scrabble

‘one can explain my choice of words in scrabble...as the outcome of an extended cognitive process involving the rearrangement of tiles on my tray...the rearrangement is part of thought’

Image removed due to copyright restrictions. A Scrabble game in progress.

whether there's water or twater in the rivers and streams, that 'plays no role in driving the cognitive processes in the here-and-now'

in the C&C examples, 'if we remove the external component the system's behavioral competence will drop, just as it would if we removed part of its brain'

from mental processing to belief

‘perhaps some processing takes place in the environment, but what of mind?’

perhaps ‘truly mental states—experiences, beliefs, desires, emotions, and so on—are all determined by states of the brain’

C&C seem to concede at this point that the rearrangement of the scrabble tiles (etc.) may not be ‘part of thought’

the next step of C&C’s argument attempts to show that beliefs, in particular, ‘extend into the world’

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Photograph of MoMA.

Inga wants to go to MoMA; she recalls that it's on 53rd, and that's where she walks

Inga believed that MoMA is on 53rd before she consulted her memory

this 'standing belief' of Inga's is part of the explanation of how she successfully arrives at MoMA

Image removed due to copyright restrictions.
Photograph of MoMA.

Otto (with damaged biological memory) wants to go to MoMA; he recalls that it's on 53rd by consulting his notebook, and that's where he walks

Otto believed that MoMA is on 53rd before he consulted his notebook

'for in relevant respects the cases are entirely analogous: the notebook plays for Otto the same role that memory plays for Inga'

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but don't Otto's beliefs disappear when he's not actually consulting his notebook?

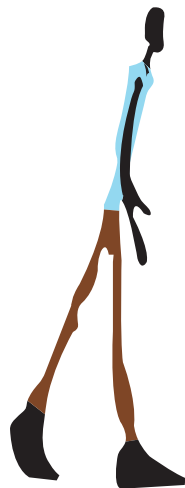
that 'seems to miss the big picture'

'in both cases the information is reliably there when needed...in just the way we expect a belief to be'

Otto and twin earth



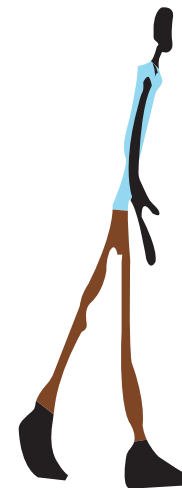
Image by MIT OpenCourseWare.



believes that
MoMA is on
53rd

Image by MIT OpenCourseWare.

Otto₁ (on earth)



believes that
MoMA is on
51st

Image by MIT OpenCourseWare.

Otto₂ (on twin earth)

reductio ad absurdum?

doesn't this mean that our beliefs are 'spread out across the internet'!?

Image removed due to copyright restrictions. A page of Google search results for Clark and Chalmers.

upcoming sessions

new topic: perception

reading: Searle
and Valberg

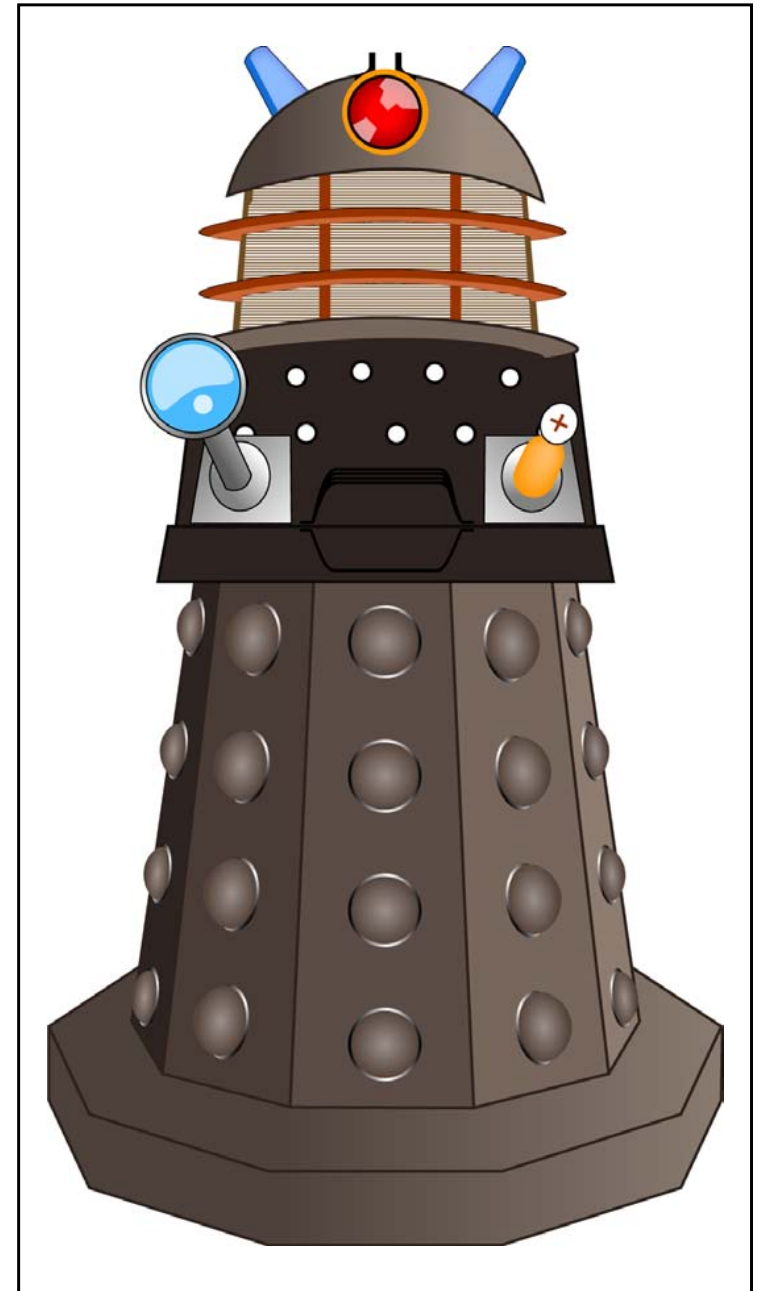


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