

# A Phenomenal Confusion about Access and Consciousness

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# On a confusion about the function of consciousness.

Block, N. (1995) *Behav. Brain Sci.* 18, 227–  
287



# The Distinction

A[ccess]-consciousness is the phenomenon where information gets into functional position to be noticed, reasoned about, reported **by a subject**.

P[henomenal] consciousness is . . .  
not A-consciousness and involves . . .  
**phenomenality**

# The Distinction

A- without P-

P- without A-

A- is “easy”

P- is “Hard”

Isn't phenomenal consciousness a kind of access consciousness?

"There is a 'me'-ness to phenomenal consciousness." Block, 1994

Isn't this a way of saying p-consciousness requires my access to the phenomenal properties?

# Among my responses . . .

1995, “The Path Not Taken,” *BBS*

1994, “Get Real,” *Philosophical Topics*

# TICS, 2011

Opinion

Cell  
PRESS

## Consciousness cannot be separated from function

Michael A. Cohen<sup>1</sup> and Daniel C. Dennett<sup>2</sup>



# Wednesday at ASSC Brighton

“A multi-access model of consciousness”





# Trying for a new bird's eye view

What is phenomenal consciousness supposed to be?

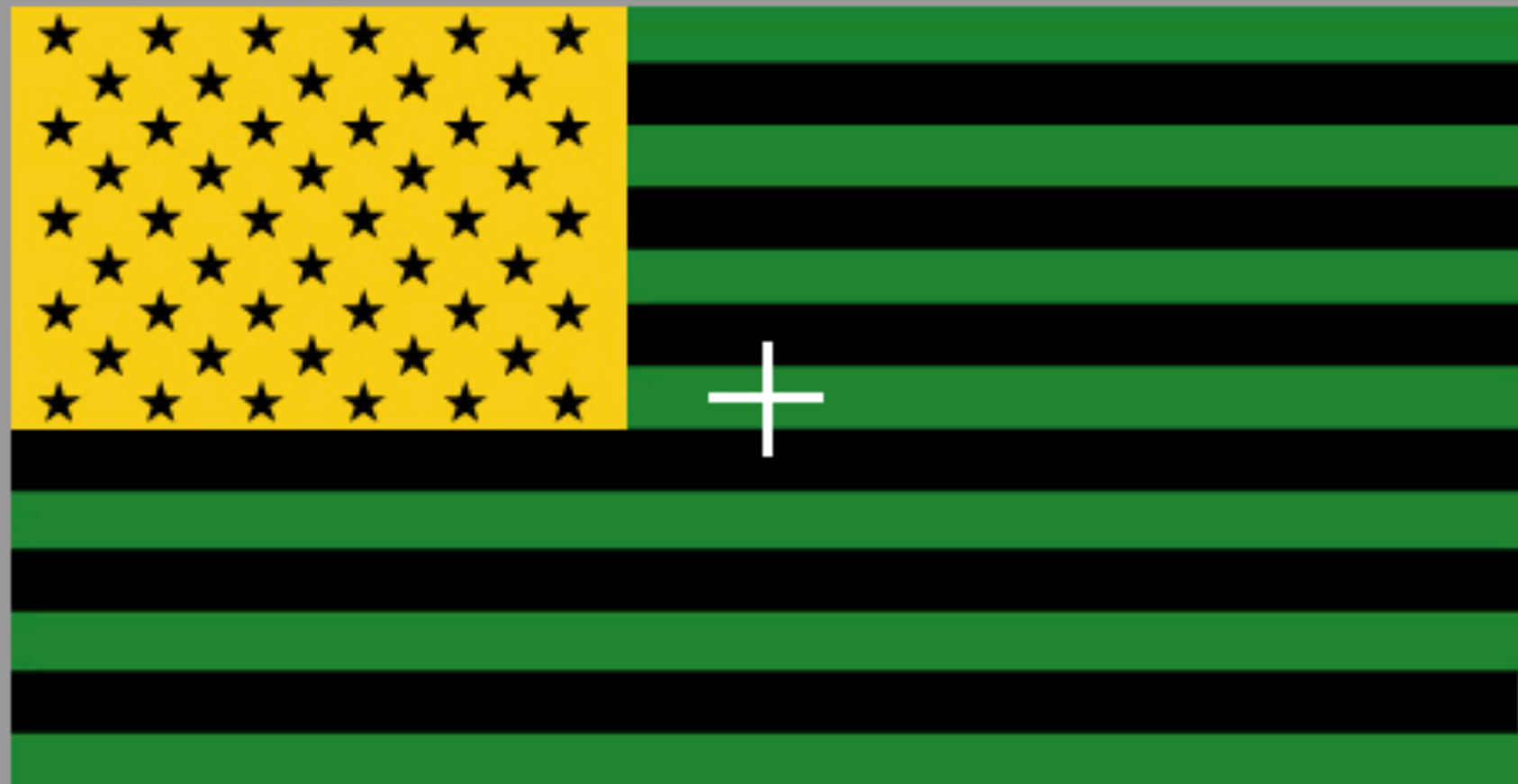
Why does it seem to some people to be a good idea?

Is the idea of phenomenal consciousness without access consciousness coherent?

Begin with a (putative) example of phenomenal consciousness





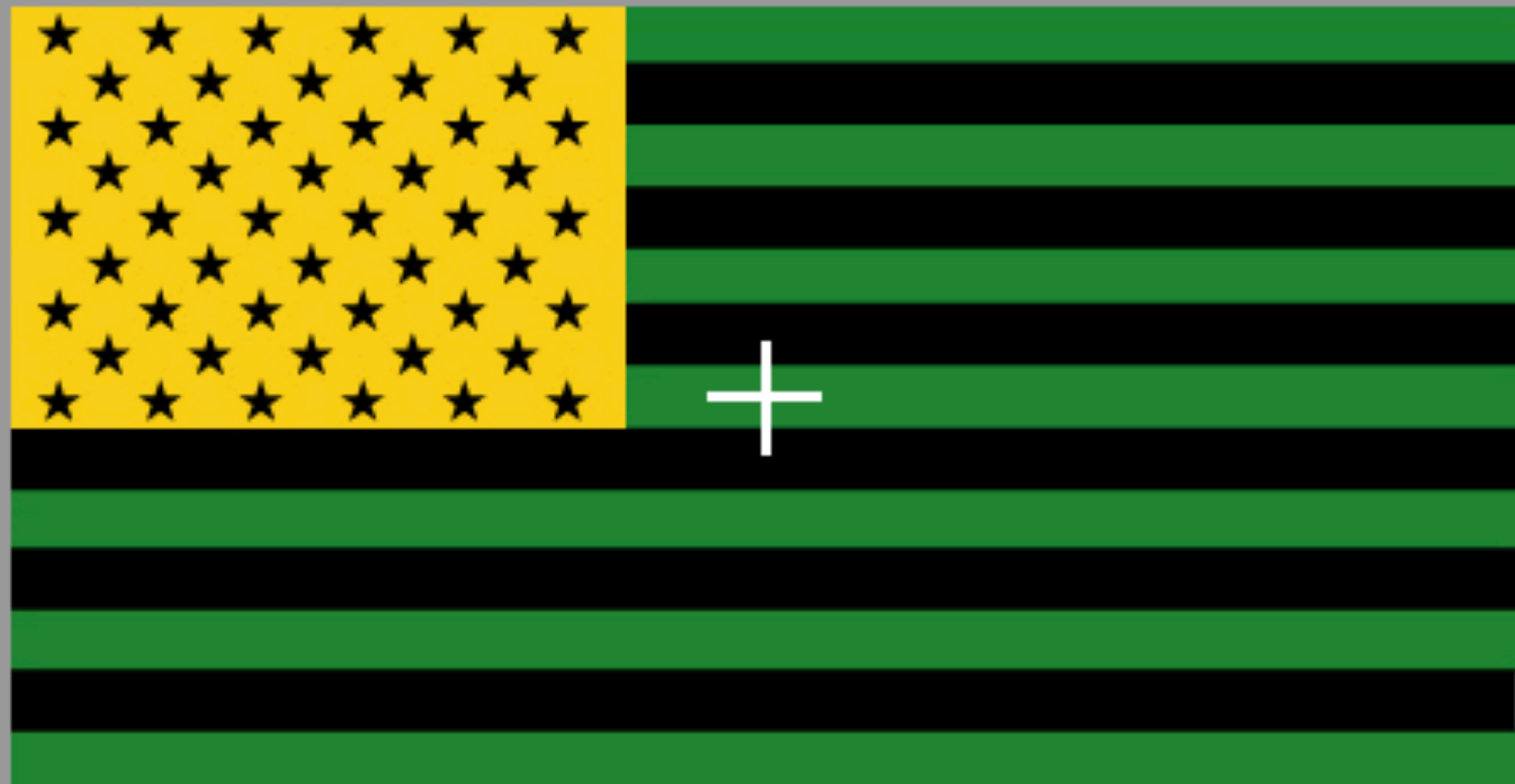




“I am having a flag after-image.”

“The stripes and stars are quite blurry.”

“The lowest short **red** stripe is intersecting the black cross.”







“The lowest short **red** stripe is intersecting the black cross.”

What are you talking about?

Something real.

Something **red**.

Where is it?

In the brain?

NO.

# “Leibniz’ s Law” of identity

If  $A = B$

Then whatever is true about A is true about B.

If A is a red stripe, and nothing in the brain is a red stripe, then nothing in the brain is identical to A

which has to be somewhere else!

Dualism follows. . . .

Unless we materialists bite the  
bullet:

You are “experiencing a red stripe”  
but there is no red stripe you are  
experiencing!

It only seems to you that there is a red  
stripe that you are experiencing!

# Quine to the rescue?

Quinian 'fusion'?

You are experiencing a red stripe.

*(cf kicking the bucket, catching a crab)*

*Quining* the red stripe

Is not satisfying, but is available

# Brentano to the rescue?

The red stripe is an **intentional object**, which doesn't have to exist!

Sherlock Holmes lived on Baker Street.

Ponce de Leon was searching for the Fountain of Youth

The red stripe, like the Fountain of Youth, has

“intentional inexistence”

Complementary color after-images are well understood.

**The causation** of complementary color after-images is well understood;  
their (metaphysical) status is still unsettled.

# An example since 1963

J. J. C. Smart, 1963, “Sensations and Brain Processes”

“what is going on in me is like what goes on in me when I see . . . a red stripe”

noncommittal, “topic-neutral”

(I’d swear I was seeing a real red stripe if I didn’t know better. . . .

That’s how much it is like seeing a red stripe.)



We can talk about 'that red stripe'

It is a thing for us, as good as any other thing in our experienced world.

And yet, it does not exist.

It only seems to us that it exists.

We need to explain this seeming.

# “real seeming” --a review

“There seems to be a red stripe.”

Yes, but there isn't.

But there *seems* to be one.

“real seeming”?

Not just a felt tendency to believe, say, or  
suppose there is a red stripe . . . .

but something . . . . made of . . . .

figment!

Phenomenal consciousness

Made of pigment?

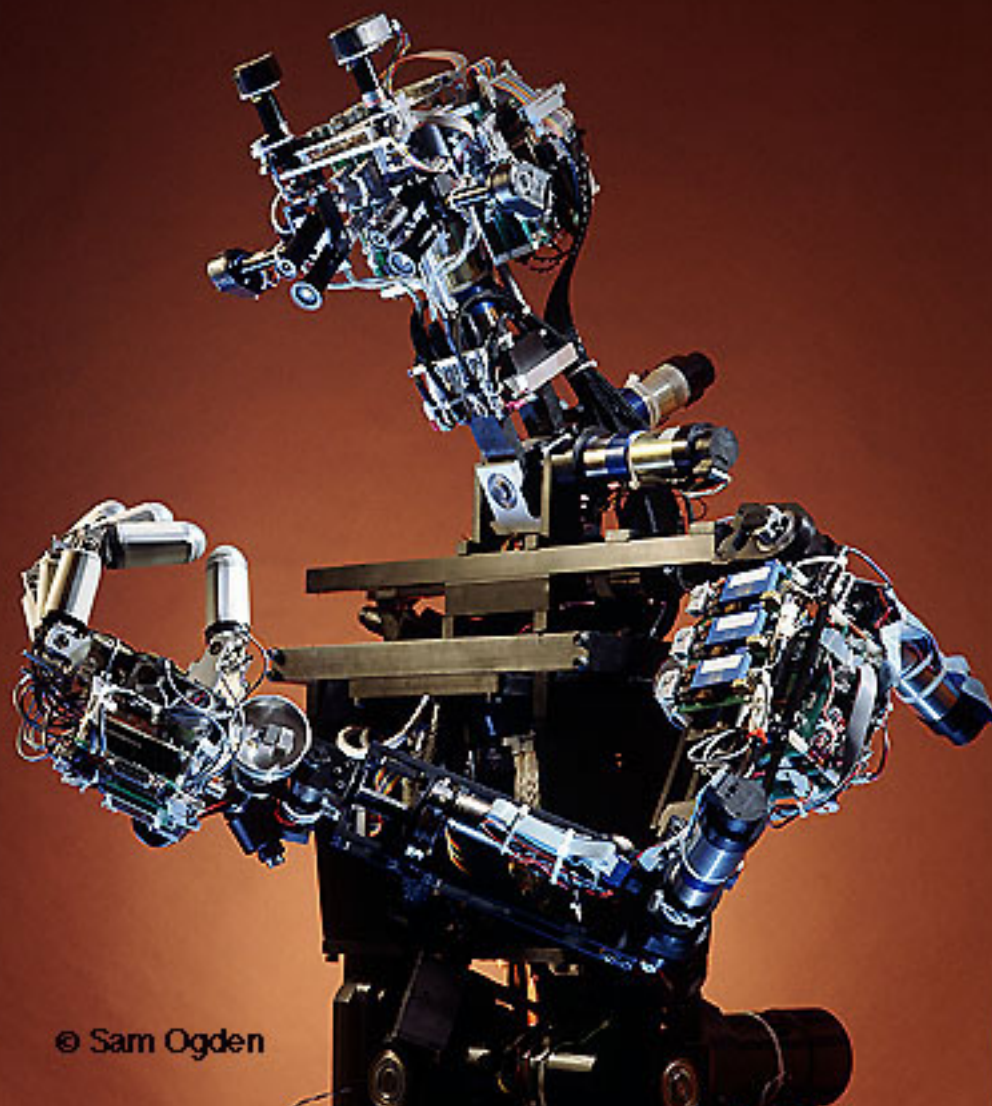
Surely not!

What then is it?

Let's try synthesis, not analysis

(cf Braitenberg)

# Cog



© Sam Ogden

System software (0th)

System software (commercial processor)

Peripheral Motion  
Saccades  
VOR

Vergence  
based stereo

Ullman-esque  
visual routines

Physical schema  
based obj. recog.

Smooth pursuit

Face pop-outs

Face remembering

Face recognition

Head/eye coord

Head/body/eye/coord

Gesture recognition

Facial gesture recog.

Body motion recog.

Own hand tracking

Specific obj. recog.

Generic object recog.

Bring hands  
midline

Hand  
linking

Grasping,  
& transfer

Body-based metaphors

Batting static  
objects

DOF reduction  
(specific coords)

DOF reduction  
(generic coords)

Body stability,  
leaning, resting

Body+arm reaching

Body mimicry

Manipulation turn taking

Sound localization

Sound-based manip.

Voice/face assoc

Sound/motion correl

Human voice extraction

Proto language

Tone identification

Voice turn taking

Visual imagery

Symbolization

Mental rehearsal

Imagination

Multiple-drafts emergence



Make sure the vision system was susceptible to complementary color afterimages. . . .

Build in opponency in the color system, fatigue, refractory period, etc. . . .

Test Cog:

“I am having a flag after-image.”

“The stripes and stars are quite blurry.”

“The lowest short **red** stripe is intersecting the black cross.”

Oh what a cheat!

There's no *phenomenal* consciousness in  
Cog!

Why not?

There's *access* consciousness . . . . (?)

There is a representational state caused in  
the way its counterpart is in us, and it is  
the source/cause of the conviction or  
judgment that there's a red stripe . . . .



No protein?

No pigment?

No feeling?

Am I leaving out “the juice” (Rod Brooks)?

The SAUCE: Subjective Aspect Unique to  
Conscious Experience (Gabriel Love)

Let's suppose I am leaving out . . . .whatever  
you want to call it.

I'll call it feeling, in honor of our host.

# Titles suggested by Stevan

**Two "Consciousnesses" -- Feeling vs. Knowing?**

**"Knowing": Felt vs. Unfelt?**

**Accessing Knowledge vs. Experiencing Knowledge?**

**Accessing Experiences vs. Experiencing Experiences?**

**Accessing Data vs. Experiencing Data?**

Feelings

must be felt . . . . .

by someone(?)

. . . . . appreciated?

Why isn't appreciation a kind of access?

Can phenomenal consciousness consist of  
feelings that are felt but aren't accessed?

# Block and Lamme

Block doesn't tell us what is necessary to turn unconscious states into phenomenally conscious states

But Victor Lamme does:

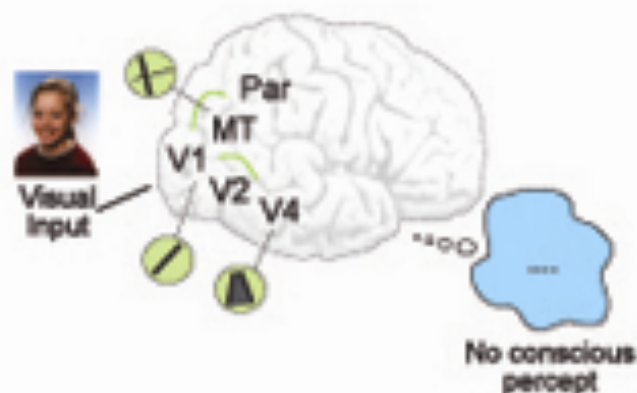
Recurrent processes.

# Inattended

# Attended

Feedforward

## Stage 1: Shallow Feedforward Processing

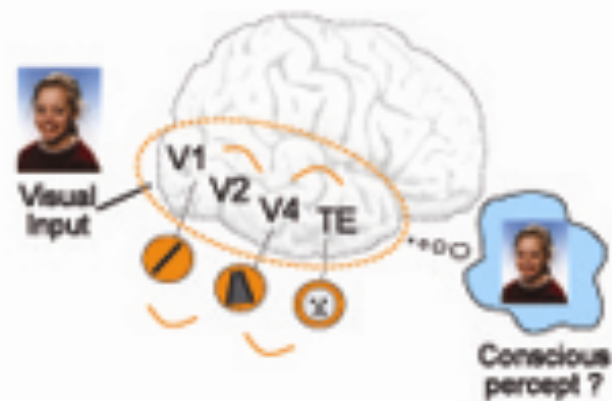


## Stage 2: Deep Feedforward Processing

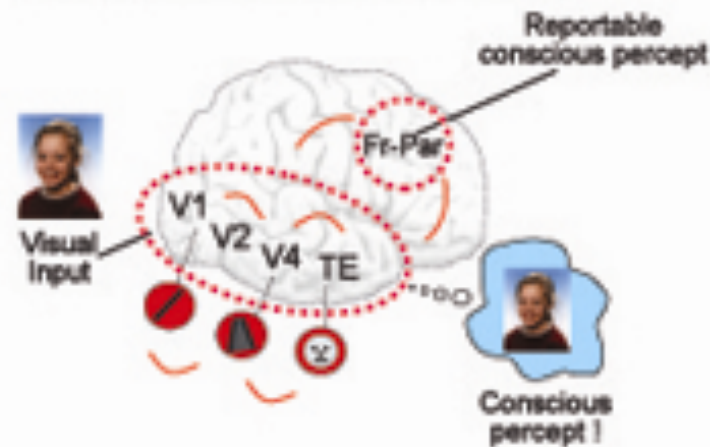


Recurrent

## Stage 3: Localized Recurrent Processing



## Stage 4: Widespread Recurrent Processing



# Recurrent processes

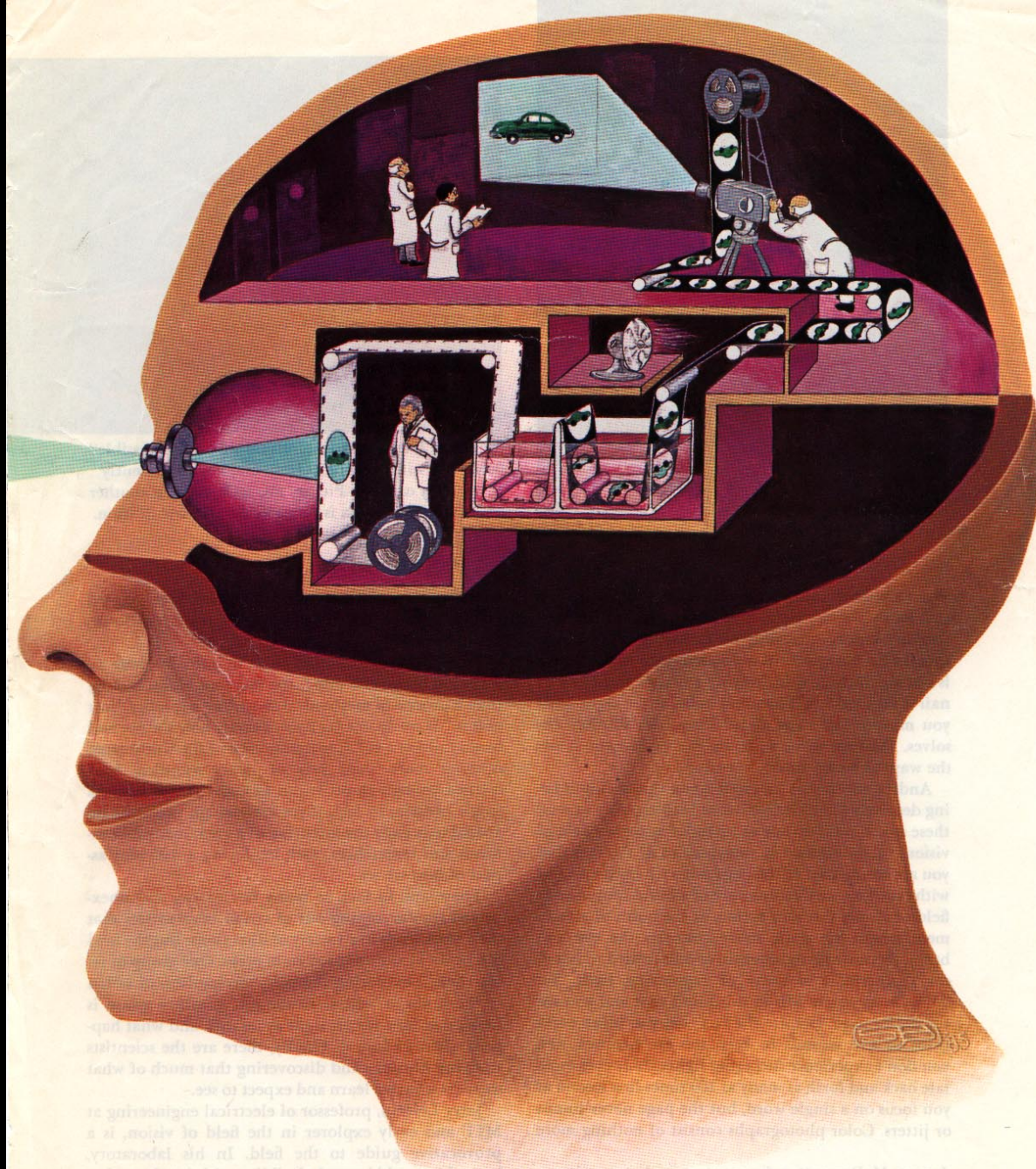
2 questions:

1. How does this recurrence make a big difference?
2. Why isn't it a type of access?

But in any case, AN effect of feeling a feeling is believing you've felt a feeling, and having that belief can have all manner of effects in the world.

Now just divide through by the feeling





In simplistic account, eye works like camera, records image on film which is then projected into the brain.

Illustration, adapted from an outdated book, begs questions of how the little men in brain can see image.

There is no Cartesian Theater.

Is this an empirical claim

Or an *a priori* (conceptual) claim?

Both.

# The Cartesian Theater

The Cartesian Theater is not what we find  
when we look inside.

So . . . .

# THE MORAL

the work done by the homunculus in the Cartesian Theater must be distributed *in both space and time* within the brain.

But then we must abandon the familiar vision of inbound processes starting off unconscious, becoming phenomenally conscious **and then** achieving access consciousness.

Phenomenality as an effect of access, not a cause.

# Strange inversions

Darwin

Turing

Hume



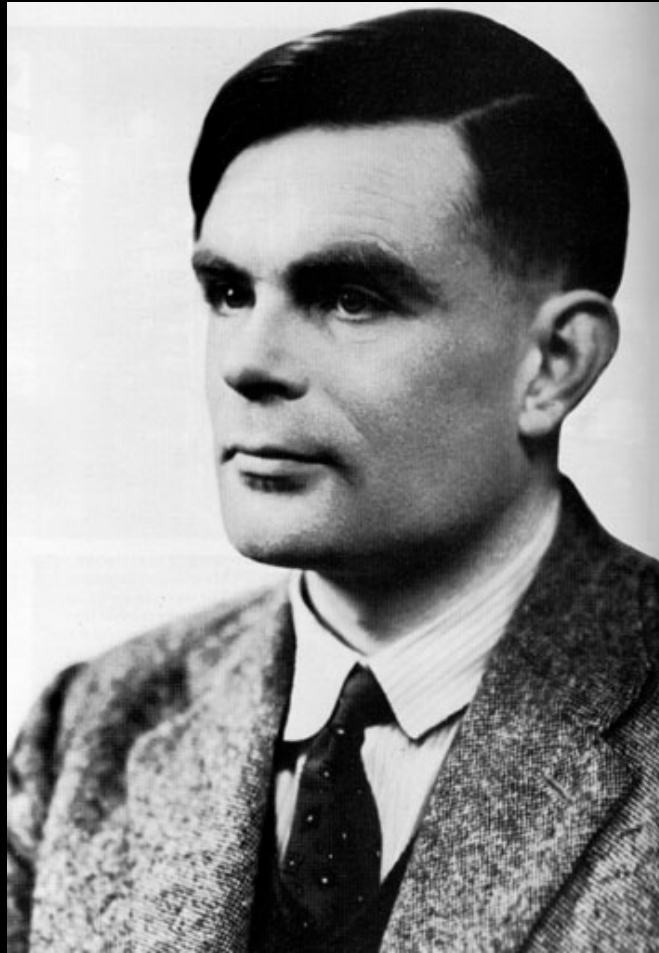
In the theory with which we have to deal, Absolute Ignorance is the artificer; so that we may enunciate as the fundamental principle of the whole system, that, IN ORDER TO MAKE A PERFECT AND BEAUTIFUL MACHINE, IT IS NOT REQUISITE TO KNOW HOW TO MAKE IT. This proposition will be found, on careful examination, to express, in condensed form, the essential purport of the Theory, and to express in a few words all Mr. Darwin's meaning; who, by a strange inversion of reasoning, seems to think Absolute Ignorance fully qualified to take the place of Absolute Wisdom in all the achievements of creative skill.

--Robert Beverley MacKenzie, 1868

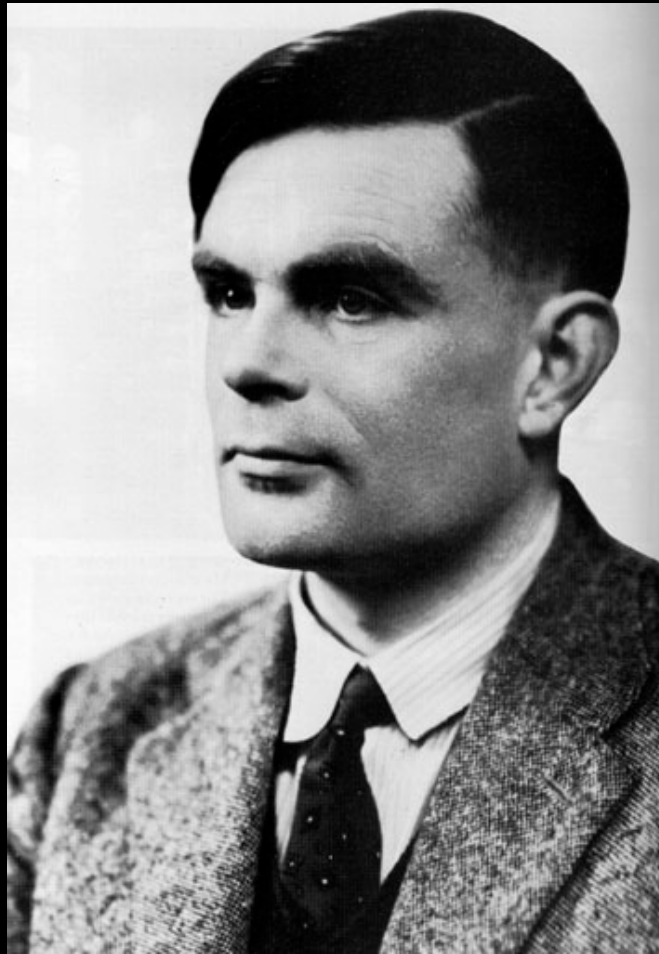
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--Robert Beverley MacKenzie, 1868

# Alan Turing



# Turing's strange inversion of reasoning



# Pre-Turing computers



Dryden Flight Research Center E49-0053 Photographed 10/49  
Early "computers" at work. NASA photo



In the old days, computers had to  
*understand arithmetic,*  
Had to appreciate the *reasons.*  
Turing recognized that this was not  
necessary.

# Darwin

IN ORDER TO MAKE A PERFECT AND BEAUTIFUL MACHINE, IT IS NOT REQUISITE TO KNOW HOW TO MAKE IT.

# Turing . . .

IN ORDER TO **BE** A PERFECT AND  
BEAUTIFUL



# Turing . . .

IN ORDER TO **BE** A PERFECT AND  
BEAUTIFUL **COMPUTING** MACHINE,

# Turing . . .

IN ORDER TO **BE** A PERFECT AND  
BEAUTIFUL **COMPUTING** MACHINE, IT  
IS NOT REQUISITE TO KNOW **WHAT**  
**ARITHMETIC IS.**

# Darwin and Turing

**Competence without comprehension!**

Understanding (mind, consciousness, intention) is the **effect**, not the **cause**.



# Hume's strange inversion

Our experience of causation

A's **followed by** B's (constant conjunction)

Causes a feeling of expectation

Which we (**mis-**)interpret as an impression of causation caused by a perceptible property of the external world.

Turning judgment and phenomenology

**inside out**

A,B

A,B

A,B . . . .



A→B

A→B

A→B

# An irresistible metaphor

We ‘**project**’ the feeling out and “attach” it to the object!

We seem to see causation “right before our eyes”

This is an illusion, but a benign one.

# Hume

the mind's "great propensity to spread itself  
on external objects"

*(Treatise of Human Nature, 1739, I, xiv)*

Some other examples. . . .



# A strange inversion. . . .

Not

We like honey because it is sweet.

Honey is sweet because we like it.

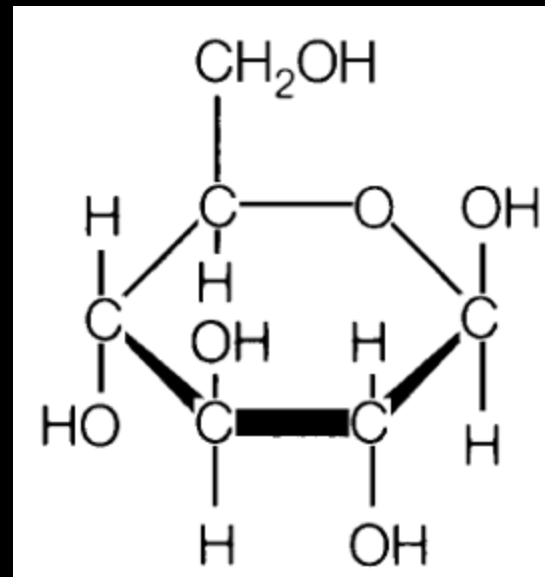
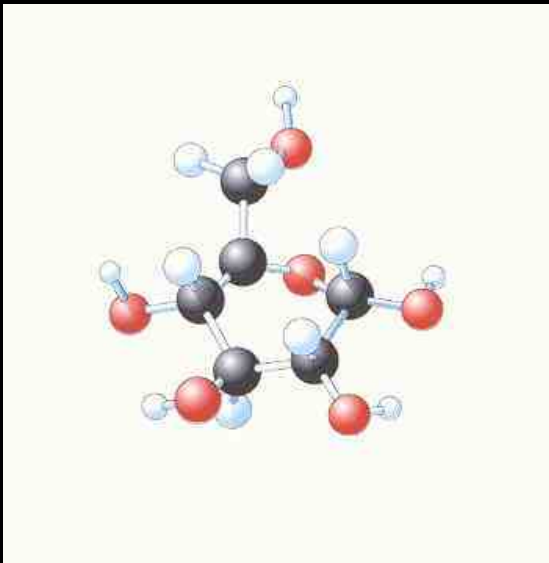
First there was sweetness,  
and then we evolved to like sweetness.

~~First there was sweetness,  
and then we evolved to like sweetness.~~

~~First there was sweetness,  
and then we evolved to like sweetness.~~

Sweetness was born with the evolved  
wiring!

theorizing about sweetness by looking *very carefully* at the structure of glucose



Is hopeless.

You won't find sweetness out there.

You need to study the brain, and evolution,  
to understand the existence of sweetness.

# The pre-inverted theory . . . .

God sees we should adore glucose  
So he sprays glucose with sweetness fog,  
Which causes people to experience  
sweetness,  
Which causes them to decide they love  
these sweet things (with all the glucose in  
them)  
And that's how God made sugar sweet!

One cause too many!

God cut to the chase:

He simply arranged for glucose to trigger a  
labeled desire (the sweet/yummy label)

Which was wired up to initiate, provoke,  
intensify *getting* behavior!

And as Hume said re causation

We project the experience.

A benign user illusion



We know . . .

what *sexy* is for.



# We know . . .

what *sexy* is for.



It rewards us for time and effort spent mating.

There is nothing 'intrinsically sexy' about



There is nothing ‘intrinsically sexy’ about



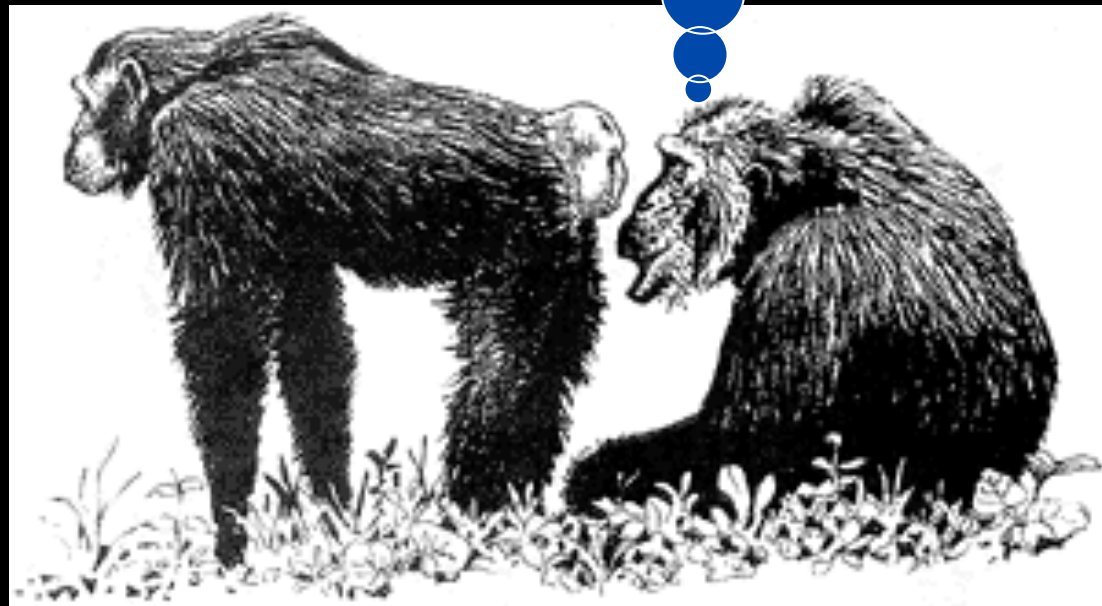
If there were,

evolution  
would have a  
problem.

# How to get chimps to mate



Hallucination!



Just wire up chimps to love *that look!*

“it stands to reason . . . .”

We adore babies . . . .





“it stands to reason . . .”

We adore babies . . .



*because they are  
cute!*

And *because* we find them cute, we want to  
cuddle them, and care for them . . .  
Just about backwards.

# Strange inversions

Darwin

Turing

Hume

# Strange inversions

Darwin

Turing

Hume

These inversions all mistake effects for causes.

# Strange inversions

Darwin

Turing

Hume

These inversions all mistake effects for causes.

How and why do we get it so wrong?

# Manifest and scientific images



“Philosophy and the  
Scientific Image of  
Man,” 1962

Wilfrid Sellars

*The Ecological Approach  
to Visual Perception*  
1979

J. J. Gibson



# The Manifest Image

Includes:

**affordances** of all kinds

sweet, sexy, cute, funny

colors

solidity

causation

free will

other minds



# The Manifest image

In almost every case, there is “projection” of  
a property that is

“affective,” a “feeling”

and hence an action tendency

Hume’s strange inversion: we misinterpret  
an inner reaction as an outer cause.

We **project** it into the (manifest) world

“projecting”

The most natural metaphor!

It **cannot** be literal!

WHAT DOES IT LITERALLY MEAN?



Bayesian predictive coding

Every affordance yields a predictive action tendency

Sets up a sort of 'forward model'

Which we then read backwards (more or less)!

When we see the front of a cup, we expect  
to see its back if we walk around it.

We expect it to afford carrying liquid.

We expect it to afford grasping and lifting

If a hottie is sexy,

and a baby is cuddly,

a cup is holdy.

We are designed by evolution  
to perceive as many affordances as  
possible.

We should have anticipations about  
everything that matters to us.

Among the things that matter to us  
Is . . . . ourselves!

In addition to our expectations

We have expectations about our expectations.

When we see a baby, we not only feel the urge to reach out to cuddle, etc.

We expect to feel that urge.

Our satisfaction of that expectation 'confirms' our 'perception' of cuteness in the baby.

The satisfied expectation of our expectations is the "projection"

# Hume

the mind's "great propensity to spread itself  
on external objects"

*(Treatise of Human Nature, 1739, I, xiv)*

# Hume, updated

the mind's "great propensity to spread itself  
on **internal** objects"



The “familiarity” of an object in your perceptual field is constituted by the *lack* of prediction error in response to the hierarchical layers of outbound signal, and this tacit “confirmation” is what licenses entry of a new object to be considered, thought about, talked about.

So what about the red stripe?

Thanks to Bayesian predictive coding, a representation of a ‘red stripe’ is “confirmed” by silence, but not for long. . . .

This creates a temporary “real” object, a notional object (like Sherlock Holmes) that we can think about, talk about, and that influences our behavior in many ways.

# Ned's experience



Laterality test:

Block: “the words on the left appeared blurry”

Which is it: you had trouble seeing the words because they were blurry, or

They appeared blurry because you (noticed that) you were having trouble seeing them?

# Block's **uninverted** reasoning

He has a pre-Darwinian, pre-Humean, pre-Turingian view of the causation in the mind.

He thinks 'phenomenal' consciousness is the causal basis of 'access' consciousness, while in fact it is an effect of access consciousness, not a cause!

What is real is

“Ah, just what I expected”

And just what I expected to expect.

An effect of judgment, not a cause.

And hence not prior to, or independent of,  
“access consciousness”

Thanks for your attention