


A Simple Argument for an Intermediate- level Theory of Consciousness

Pete Mandik

Associate Professor

Chairman, Department of Philosophy

William Paterson University, New Jersey USA



The penultimate p-graph of Brook & Mandik (2007) “The Philosophy and Neuroscience Movement”

No matter what the scientific model, sceptics about a science of consciousness can always claim that the model is not a model of *consciousness*, that the researcher has changed the topic to something that can be understood neuroscientifically, is merely talking about correlates of consciousness (NCCs) or whatever. Moreover, it would appear that no amount of neuroscience could make this objection irrational. No matter what the scientific model of consciousness, the charge can always be levelled that the model is studying mere correlates, that it is not uncovering the nature of *consciousness*. Many now believe that the only approach with any hope of success so far as a science of consciousness is concerned is to beard the sceptics in their lair, to tackle the arguments that they advance and show that they just don't work or worse, are **incoherent**. To make consciousness safe for neuroscience, we would have to show one (or both) of two things. The first would be that the sceptics have given no good reason to believe that consciousness is not safe for neuroscience. The second, and perhaps stronger, would be to show that **consciousness is not and could not be unique in the way required by sceptics**. (p. 20. Emphasis added.)

How to Solve (Kill) the “Hard Problem”: 4 Principles



- n Explanations must be recognition-supporting (we recognize the *explanandum* in the *explanans*).
- n Explanations must be non-circular.
- n There is no theory-neutral way of saying what the data are such that someone lacking a theory can criticize a theory for failing to explain the data.
- n There is no pure pointing: all pointing is always pointing under a description and all description is always infected with theory.

A Simple Argument for an Intermediate-Level Theory of Consciousness

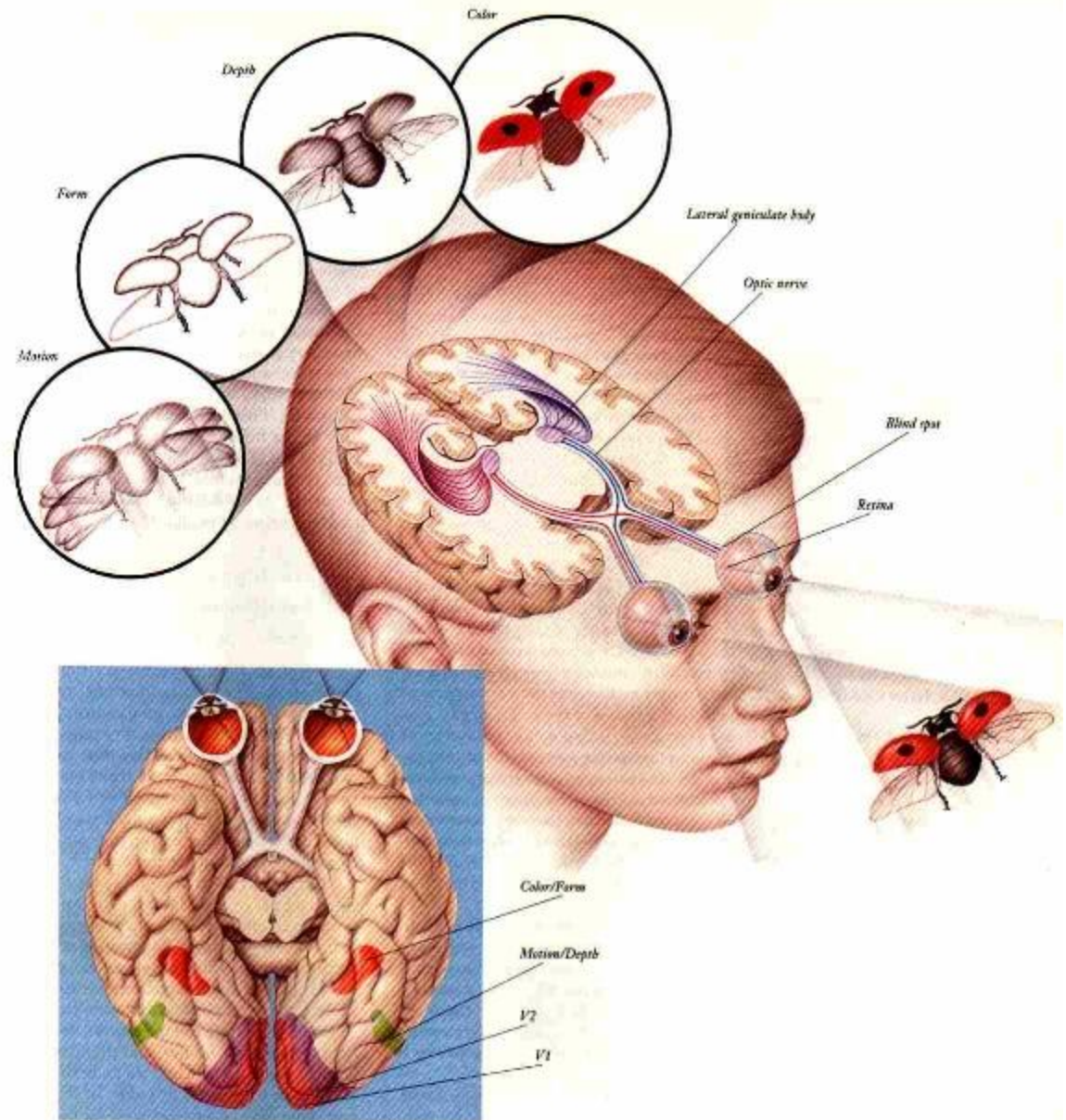


- (1) There is a hierarchy of mental states within which conscious experiences are located.
- (2) Conscious experiences are not at the top of the hierarchy.
- (3) Conscious experiences are not at the bottom of the hierarchy.

Therefore,

- (4) Conscious experiences are intermediate-level mental states

Levels of visual processing



What is the progression of levels?

Egocentric-to-Allocentric transformations

Low-level (LGN and V1)

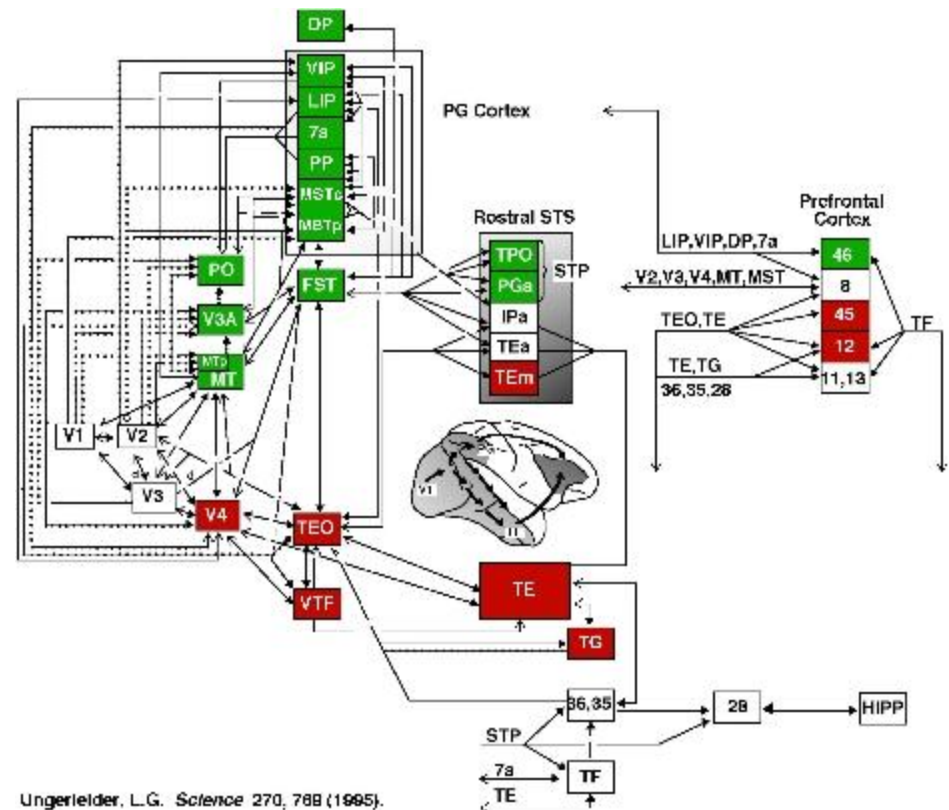
Egocentric reps

Intermediate-level (IT and PP)

Egocentric/Allocentric Hybrid reps

Highlevel (Frontal Cortex and Hippocampus)

Allocentric reps



What is the egocentric-allocentric distinction?

EGOCENTRIC

Self-specifying contents

Online
(sensorimotor)

Analog,
isomorphism

Info. encapsulation

ALLOCENTRIC

Non-self-specifying contents

Offline (memory and
planning)

Conceptual, categorical

Inferential promiscuity



So, where is consciousness?

Not at either end of the Egocentric-
Allocentric continuum



Pure Allocentric

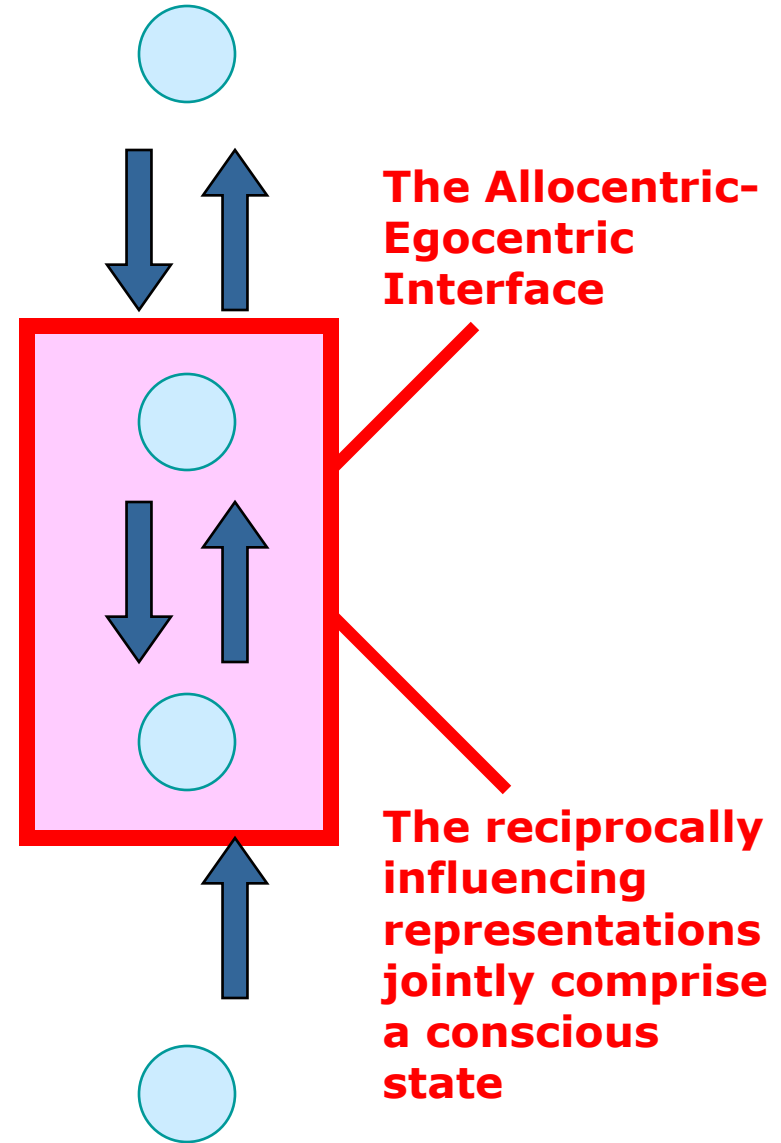
Amodal Category knowledge

Limited viewpoint invariance

Body-centered

Retinocentric

Pure Egocentric

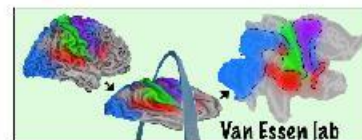
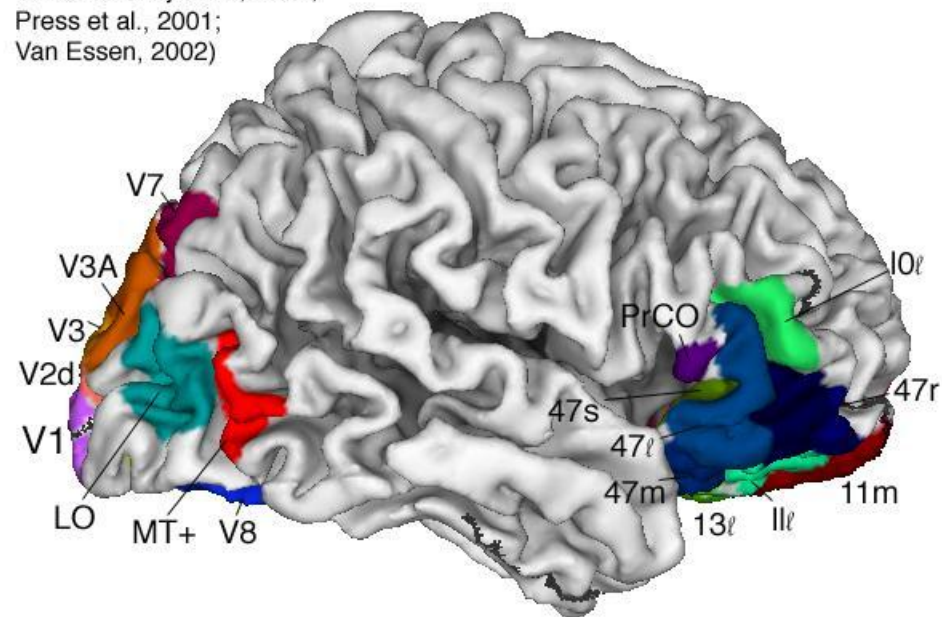


Consciousness is not purely egocentric

Patient DF's visual form agnosia (Milner and Goodale 1995)

Bilateral ventral stream damage to area LO

Visuotopic areas
(fMRI: Hadjikhani et al. 1998;
Tootell & Hadjikhani, 2001;
Press et al., 2001;
Van Essen, 2002)

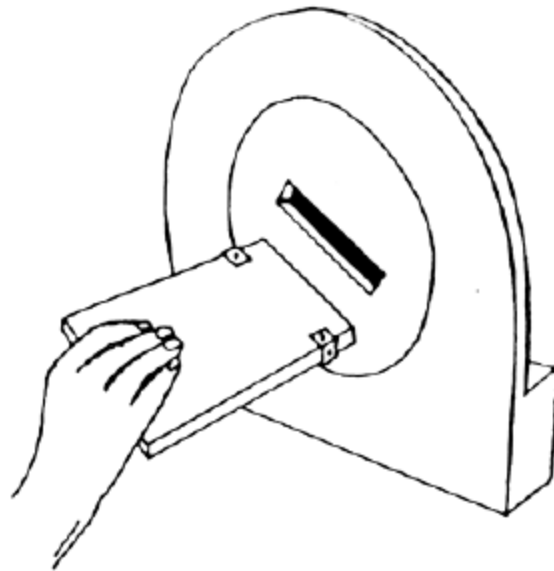


Orbito-frontal areas
(Architectonic: Ongur & Price, 2001;
Gusnard et al., 2002)

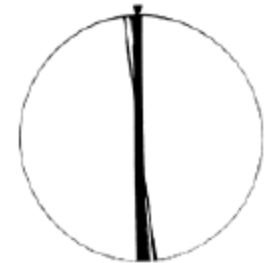
Consciousness is not purely egocentric

Patient DF's visual form agnosia

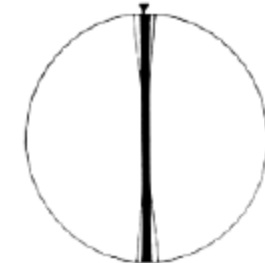
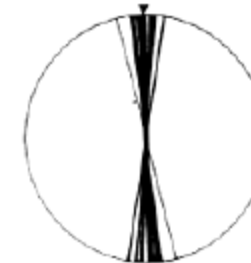
Perceptual consciousness of form and orientation destroyed, but sensorimotor skill intact



Perceptual
Orientation
Matching



Visuomotor
"Posting"



DF

Control

Consciousness is not purely egocentric

Visual consciousness is conceptually informed
Theory ladenness of perception



What is this a picture of?

Hints:

- Dog
- Dog sniffing ground
- Dog's butt facing you
- Did I mention the dog?

Consciousness is not purely allocentric

Thoughts alone have no phenomenal character:

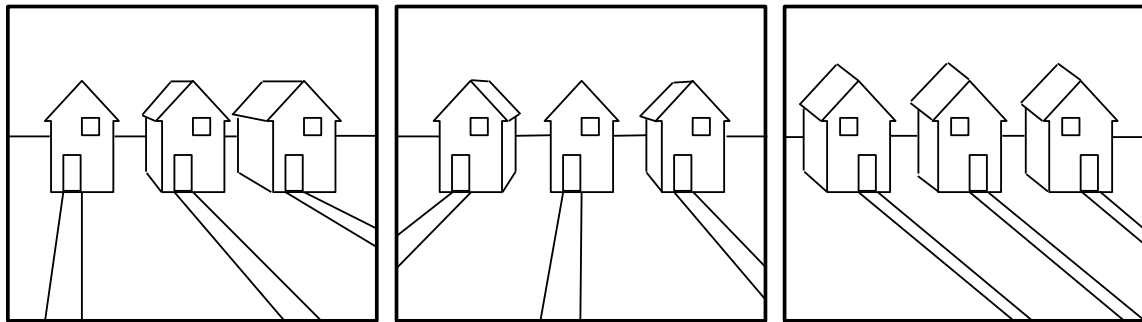
- “Pi is an irrational number”
- “Natural selection depends on the variable inheritance of fitness”
- “Democracy and capitalism are incompatible”

Apparent phenomenality of thought due to associated imagery (Jackendoff 1987)



Consciousness is not purely allocentric

Visual consciousness is never viewpoint independent. The contents are like. . .



. . .this . . . this, . . . or this . . .

THREE HOUSES

. . .but not this.



The need for recurrence:

- ◆ TMS: feedback from area MT+/V5 to V1 necessary for visual awareness (Pascual-Leone & Walsh 2001)
- ◆ Backward masking invokes feedforward activation but suppresses recurrence (Lamme 2004)
- ◆ Feedforward activation recorded in anesthetized animals (Lamme 2004)



Conscious States = ILRs

Conscious States are intermediate-level representations.

Qualia are the representational contents of intermediate-level representations.



Recall the 4 Principles

1. Explanations must be recognition-supporting (we recognize the *explanandum* in the *explanans*).
2. Explanations must be non-circular.
3. There is no theory-neutral way of saying what the data are such that someone lacking a theory can criticize a theory for failing to explain the data.
4. There is no pure pointing: all pointing is always pointing under a description and all description is always infected with theory.



1. Recognition support and ILRs

We recognize first-person phenomenology as having representational contents that are intermediate between maximal egocentricity and maximal allocentricity



2. Non-circularity and ILRs

Consciousness is explained via a combination of concepts such as *representation*, *egocentric*, and *allocentric* none of which individually just mean *consciousness*.



Principles 3 & 4 and classic anti-neuroscientific objections

Zombie Objection: A being could have ILRs and still be a zombie.

Mary Objection: Colorblind Mary could know all about ILRs and not know what it's like to see red.

Gap Objection: One can know all about ILRs and an explanatory gap remains between ILRs and qualia.





classic anti-neuroscientific objections restated with “pure pointing” (inward “*THIS*•”s)

Zombie Objection: A being could have ILRs and still lack *THIS*•.

Mary Objection: Colorblind Mary could know all about ILRs and not know *THIS*•.

Gap Objection: One can know all about ILRs and an explanatory gap remains between ILRs and *THIS*•.

The Pointlessness of Pointing

If what the objectors are doing with their *THIS*•'s is *not* supplying a description, then it's always open for the neuroscientist to accuse the objector of talking about nothing at all.

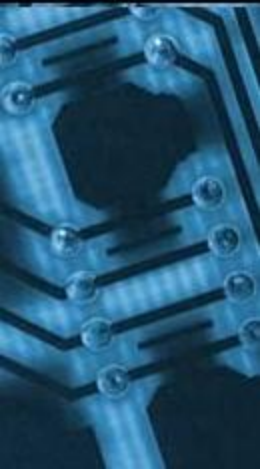
If, on the other hand, the objectors rise to the challenge of *saying* what it is they're talking about and *supplying a description*, aka "articulating a theory," then consciousness becomes vulnerable to functional reduction and the objector becomes vulnerable to accusations of *having a bad theory*.



A Challenge for Young People

State, in a way that doesn't simply beg the question for dualism and against neuroscience, what it could possibly be that the ILR explanation of consciousness is leaving out.





THE END

