

Reality or Hallucination?

David Bodrell

IW Humanists

Introduction

There are big Qs that trouble me...

- How did the Universe begin?
- How did life evolve from inanimate matter to become self-aware (the so-called '*hard problem*' of consciousness)

Whilst searching for information on consciousness I discovered Anil Seth. He caught my attention because his approach was scientific, as opposed to philosophical, and his thinking on hallucination resonated with my own thinking on the brain as a simulator.

I am going to present a quick overview of Anil's take on consciousness, drawing upon popular (non-academic) YouTube talks.

Most particularly this one: [Anil Seth Wired Live Video](#)



The Hard Problem

Until recently it seemed inconceivable that a collection of biological processes could generate life without some additional life-force or 'elan vital'.

Today, our understanding of biology and evolution removes the need to include a special life force. As biologists got on with the job of explaining the physical systems of life – metabolism/reproduction/homeostasis - the mystery of life itself has started to fade away.

Anil Seth believes that by adopting the same approach for consciousness, i.e. by studying the properties of the brain and body, then the mystery of consciousness should also fade away.

Time will tell!

So, **what should the science of consciousness try to explain?**

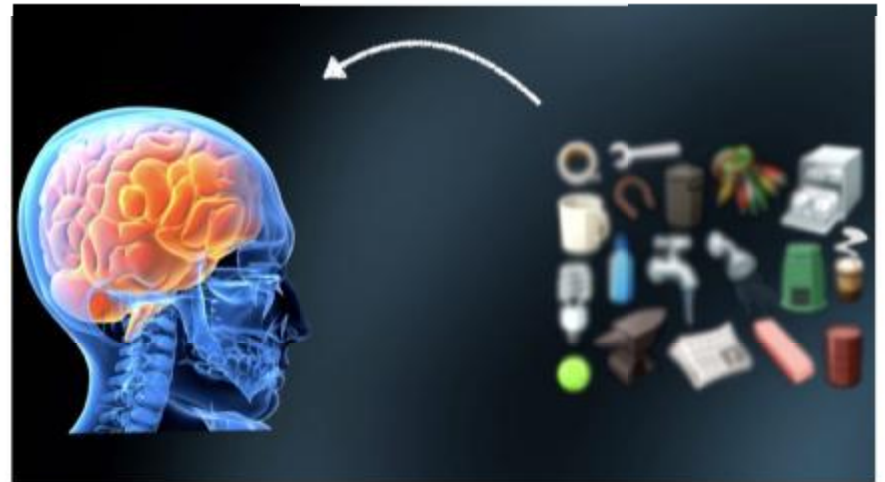
For starters...

- **perception of the outside world**
- **perception of self**

Perception of the World

Outside In

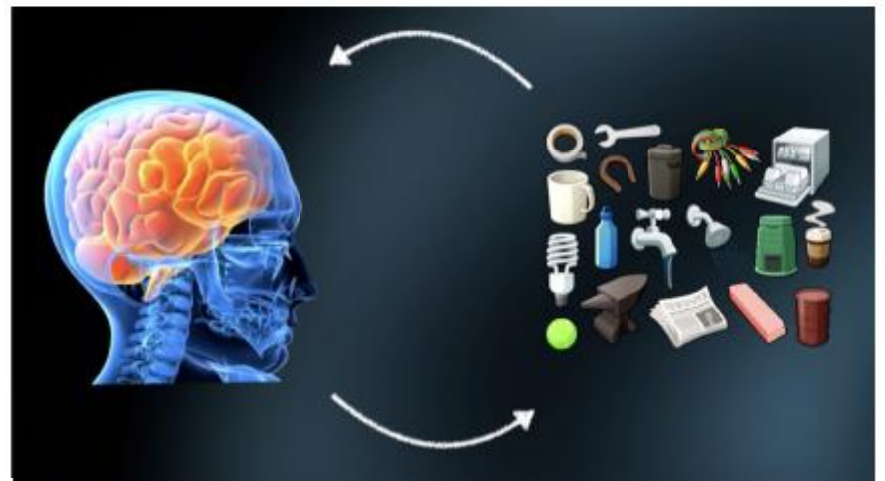
The brain is inside a bony skull. There is no light, no smell. All the brain receives are noisy, confusing electrical signals from sensory organs.



Inside Out

The power of the brain is that it draws on experience to predict what is out there.

Perception is the combination of the brain's best guess + the noisy sensory input signals.



Hallucination & Perception

[Anil Seth Wired Live Video](#) (5m 38s → 7m 50s)

The video simulates hallucinations people can experience in altered states. It's a VR video simulating an inside-to-out brain prediction with a bias towards predicting the presence of dogs.

Hallucination = uncontrolled Perception

(normal) **Perception = controlled Hallucination**

that reality



Experience of Self

Bodily Self

Perception of our body is also a hallucination that can be broken.

[Anil Seth Wired Live Video](#) (9 m 41s → 10m 52s)

Does this help to explain ‘out of body’ experiences when the body and mind are in extreme stress? (This is a Dave thought, nothing to do with Anil Seth)

Experience of Self

Interoception

Perceiving and controlling the internal state and condition of the body. This is thought to be the real evolutionary incentive for having a brain at all. This is what keeps us alive.

Regulating body temperature

Am I dehydrated?

Is my blood pressure ok?

A great deal of our neuronal 'real estate' is devoted to processing sensory signals from within.

Interestingly we don't consciously experience much of our internal body unless something is going wrong. This is because it's not about figuring out what is there. It's about regulation. The brain *is* still predicting – but it's predicting how well, or not, the regulation is working.

[Anil Seth Wired Live Video](#) (12 m 36s → 13m 15s, 14m 57s)

Implications



1. If we can misconceive the world, we can also misconceive ourselves when our perceptions go wrong.

With better understanding of the mechanisms of perception we are better placed to diagnose and treat psychiatric disorders.



2. Conscious experience is so tightly bound to evolution and the need to stay alive that the notion that a machine could gain consciousness makes little sense. Or, that somehow we could download our minds to a computer or robot and live on within a machine seems unlikely. Despite popular speculation. Intelligence and awareness are *not* the same.



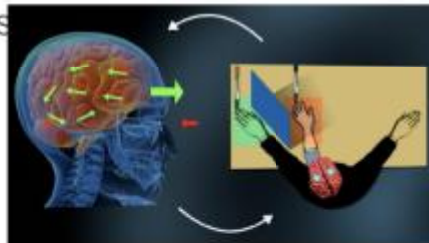
3. Our human way of being conscious is only one of an enormous range of possible ways that life can be conscious.

Summary

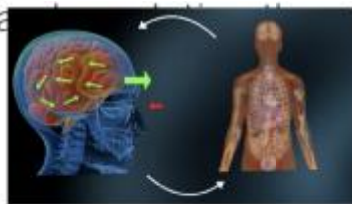
- What we consciously perceive to be the world around us is just the brain's best guess at the causes of sensory signals.



- The rubber hand experiment tells us that what is / what is not part of our body is just another kind of the brain's best guess.



- Self-related predictions depend critically on signals coming from deep inside the body, and our basic background of being a conscious self is deeply connected with the need to stay alive: more to do with control and prediction than with figuring out what is beyond our bodies.



- Our experience of world and self are the result of controlled hallucinations that have evolved over millenia to keep us alive in a world full of danger and opportunity.

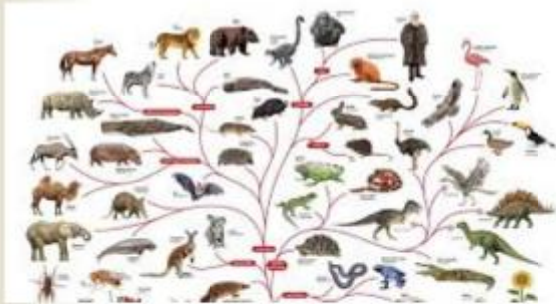
Thoughts for the Evening

Our growing understanding of the human brain and consciousness is exciting and humbling.

Religions would have us believe that we have a special place and role in the universe. But...

Copernicus explained that we are *not* at the centre of the universe.

Darwin explained that we have evolved, as have all other animals, on the tree of life.



We are beginning to understand that despite being conscious beings, we are part of nature, not special within it and not separate from it.

Religions would have us believe that there is life after death, which in effect is an assertion that somehow consciousness lives on despite the demise of our physical bodies. There is no evidence for this. So, as the author Julian Barnes eloquently put it...

“When the end of consciousness comes, there is nothing to be afraid of. Nothing at all!”



The End & Discussion