

---

# HOW THE OUTSIDE GETS IN

---

THE INCREDIBLE SCIENCE BEHIND LEARNING, WISDOM AND PREJUDICE.

by Richard Epworth\*, FIET

Learning is an intrinsic part of every human life, yet we understand surprisingly little about the process itself. If we dare to examine the scientific evidence, we discover that the rate we can learn anything that is new to us, is shockingly limited. Although the world we inhabit and experience through our senses appears incredibly detailed and rich in information, it is mostly a construct of our imagination. Our mind relies on predictions from our past experiences to create the detail we experience in the present moment, and we concoct stories to make sense of our past, and of our present.

**Stansted U3A, November 29th 2014**  
**Symposium programme of the day**

## **Introduction**

- What the symposium is about
- What is in our head
  - And what the symposium is not about

## **What limits our ability to learn from the world out there**

- The difference between learning and introspection
- How our physiology limits our learning
  - Our Senses and their limitations
  - What our eyes do when we read
  - Our Blind Spot
- Mind Blindness
- A Science of Learning
  - How we might measure the rate we learn
- A bit about Bits

## **The evidence for our learning bottleneck**

- What's New
  - The need to distinguish
- Quantifiable evidence
  - From Language
  - From mind athletes
  - From things we do

## **The implications**

- For Education
- What it tells us about seeing
- Learning versus recognition
- Familiar words and music
- The Subjective Implications
  - Seeing what we can imagine
- We are the great predictors
  - Rules and explanations
  - Unconscious predictions
- Now it gets personal
  - Alone in our personal “Youniverse”
  - Memories and recollections
  - Creating the world we inhabit
- The science of Prejudice
  - Predictions from experience
  - Puppets in our head
  - Polarised opinions

## **The Future**

- Could we widen our learning bottleneck?
- 

## **Conclusions**



See [www.humanbottleneck.com/index/U3A](http://www.humanbottleneck.com/index/U3A) for more information

\* Author of “Bottleneck - Our human interface with reality”