

THE MIND'S EYE, PERSPECTIVES ON VISUAL IMAGERY

UNIVERSITY OF EXETER

In 1880, British psychologist Francis Gaulton conducted a piece of research that came to be known as The Breakfast Study. He asked participants to recall the image of their breakfast – laid out on the table (as would have been the case in the late 1880s). While most of the results were as he'd expected – the majority of people had some sort of mental image with varying vividness – he was surprised to discover the spectrum went beyond this mid-scale result at both extremes: hyper-vivid images on the one hand and no images at all on the other.

In 1973, the psychologist David Marks, developed a questionnaire called The Vividness Visual Imagery Quiz (VVIQ) as part of his team's research into human consciousness. He wanted to explore just how different our imaginative experience can be.

Nearly 40 years later Adam Zeman, professor of Cognitive and Behavioural science at Exeter university received a letter from a patient who had recently undergone cardiac surgery following a stroke. He complained of having totally lost the ability to visualise.

Zeman was intrigued and decided to put out a message on social media. The response from other people with a similar 'problem' was massive.

So the Exeter university project *The Eye's Mind* was born in 2015 and ever since, his team's work on delving into the human experience of the imagination has grown so much that they have now hosted an international conference on the subject for 3 consecutive years (2016 – 2019).

Zeman produced new questionnaires and scale from 0 – 10 to measure and record the results: A score of zero he named **aphantasia** and the highest score of 10, **hyperphantasia**.

The field is still relatively new but already there is a far greater wealth of information available online.

New research has identified 2 types of aphantasia:

- a) Congenital aphantasia – people who are born with a lack of visual images when awake but dream with images

b) Acquired aphantasia – after injury to the brain. Total brain ‘blindness’ even when dreaming.

FUN FACT: Aldous Huxley was aphantasic and writes about his experience of it in ‘The Doors of Perception’.

An update from the Eye’s Mind project at Exeter university, May 4th 2020

Our discovery, or rediscovery, that around 2-3% of the population, with *aphantasia*, lack a mind’s eye, and that a somewhat larger percentage, with *hyperphantasia*, have imagery that is ‘as vivid as real seeing’ has captured huge public interest, and led to a sustained surge of citizen science. We have been astonished – and delighted – to receive over 14,000 contacts from members of the public with extreme imagery since coining the terms in 2015. These continue. A widely used measure of public interest in scientific publications, The Altmetric Score, indicates that our initial description of aphantasia lies in the top 1%, reflecting, we think, a widely-shared fascination with what happens in one another’s minds.

The Eye’s Mind:

<http://medicine.exeter.ac.uk/research/neuroscience/theeyesmind/>

TEDx ‘Defining Aphantasia’ Tamara Alireza

Youtube: ‘Imagination Blindness – Aphantasia. The Ways your Brain can break’