



Dr Charlotte Russell

Module:

Psychological Foundations of Mental Health

Week 2:

Cognitive Processes and Representations

Topic 1:

Perception

Part 1 of 2

Topic list



This week, we will be looking at the following topics:

- **Topic 1: Perception**
- Topic 2: Attention
- Topic 3: Memory
- Topic in Action 1: Control Processes

Click **Next** to continue

Challenges for Perception

Challenges for perception



Sensory info must be interpreted



Why?



1. Information is incomplete



2. Too much raw information



3. Must extract what is important or dangerous

Vision

We focus on vision

→ *because*



1. Large part of brain is dedicated to vision



2. Seeing is a difficult task and demands interpretation



3. Good source of environment information

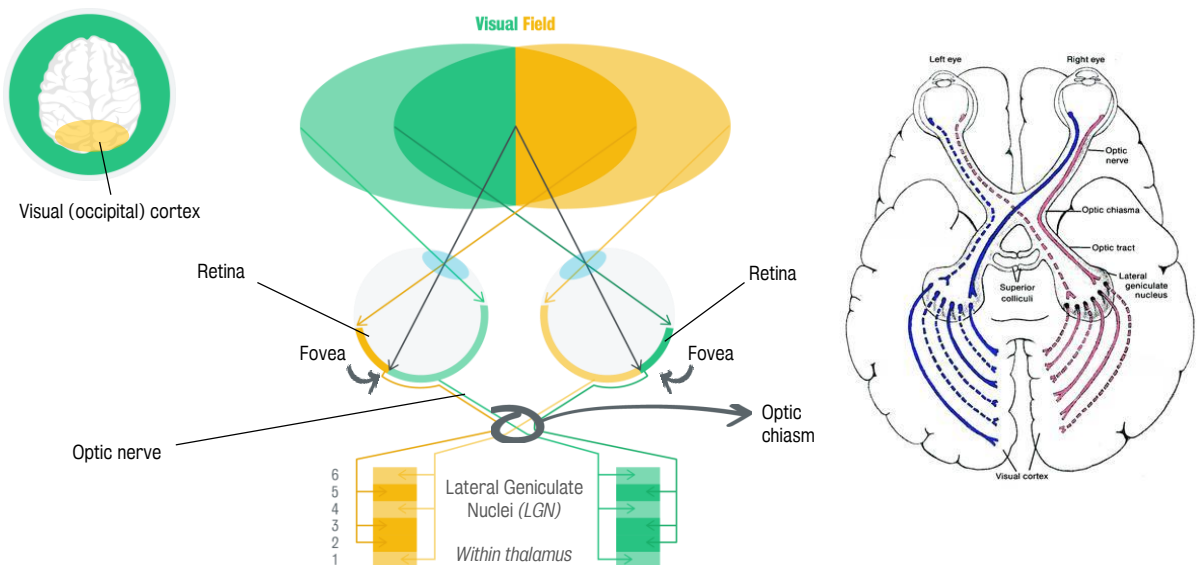
Misconceptions about Vision

Misconceptions about visual perception

1. Automatic and effortless
2. Provides an exact copy of the world
3. Provides a rich and continuous visual environment

ALL FALSE!

Vision in the brain



Visual cortex: The occipital lobes

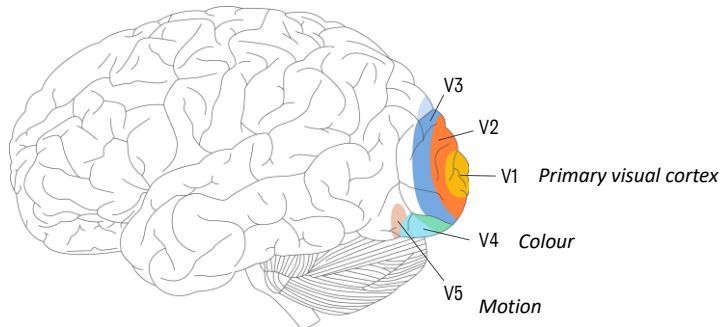
2 principles of vision

1. Vision is **hierarchical**

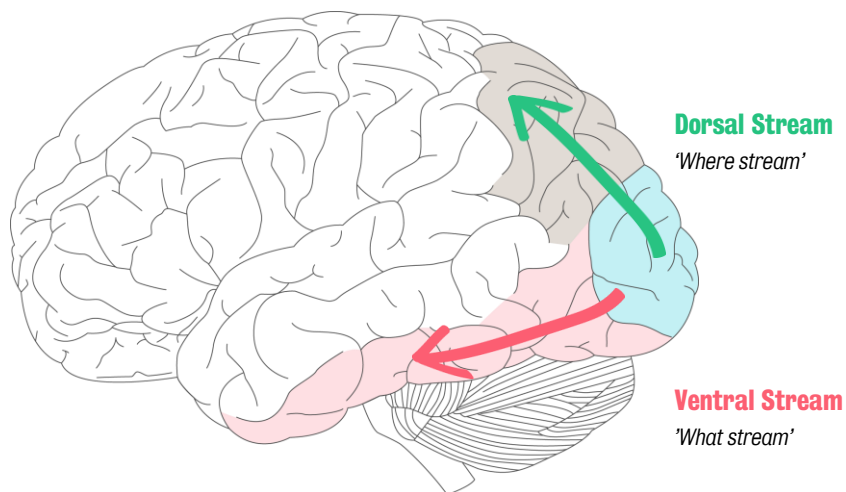
2. Vision is **modular**

Simple properties → More complex

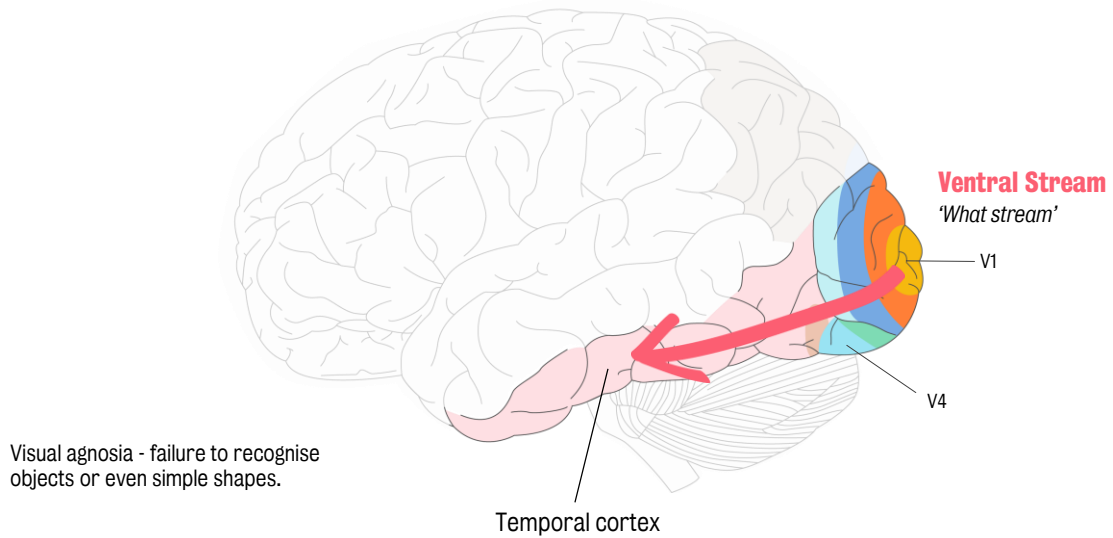
Specific parts are dedicated to particular types of information



Visual pathways: Beyond V1

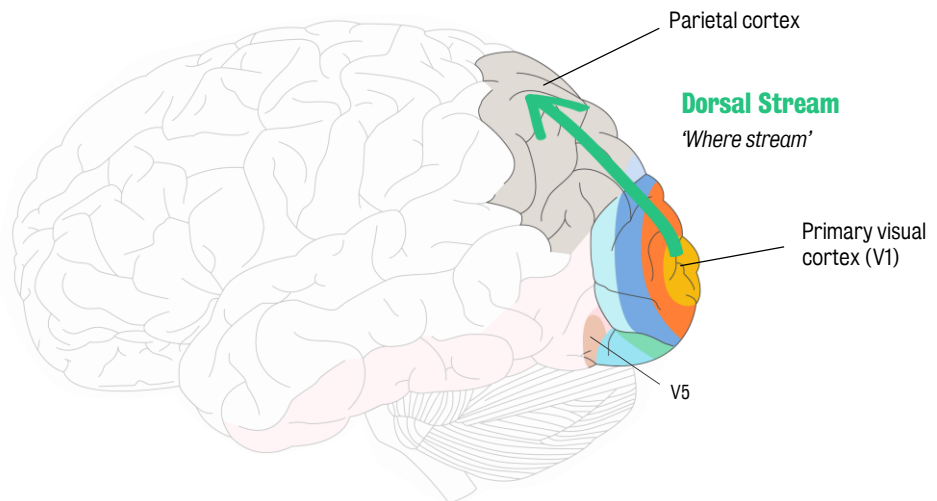


Ventral 'What' pathway



Karnath, Rüter, Mandler & Himmelbach (2009)

Dorsal 'Where' pathway



Haxby et al (1994)