Visual search as active inference
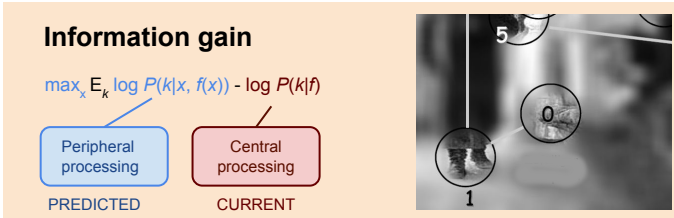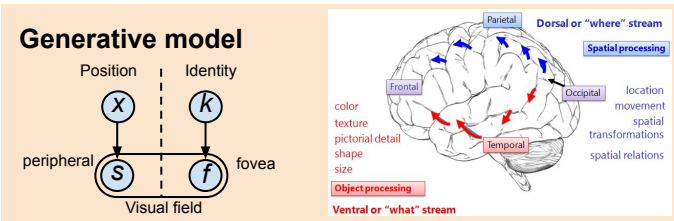
Emmanuel Daucé & Laurent Perrinet
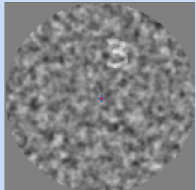
SCENE

OBSERVER

Generative model

Position   Identity

x k

peripheral s f fovea

Visual field

Dorsal or "where" stream

Parietal — Spatial processing

Frontal — Occipital — location, movement, spatial transformations, spatial relations

color, texture, pictorial detail, shape, size

Object processing

Temporal

Ventral or "what" stream

Information gain

$$\max_x E_k \log P(k|x, f(x)) - \log P(k|f)$$

Peripheral processing	Central processing
PREDICTED	CURRENT

Display

Results

DIS   Predicted   SAC