

## Introduction

Sergent and Poncet (1990) provoked overt face recognition in AP patient P.V.. She viewed images of different politicians faces. When told they shared an occupation, she spontaneously recognised images she previously could not.

**Provoked Overt Face Recognition:** Ability of APs to recognise faces due to specific activated information.

### Present Research: Study of Prosopagnosic Patient (Herschel)

Adaptation of Sergent & Poncet (1990). Used multiple different images of the same PF. If face recognition can be elicited in Herschel, we can attribute this to the variation in image presentation.

## Results

**Familiarity Phase:** Herschel identified 4/10 PFs.  
**Recognition Phase:** Performance improved by 30%.

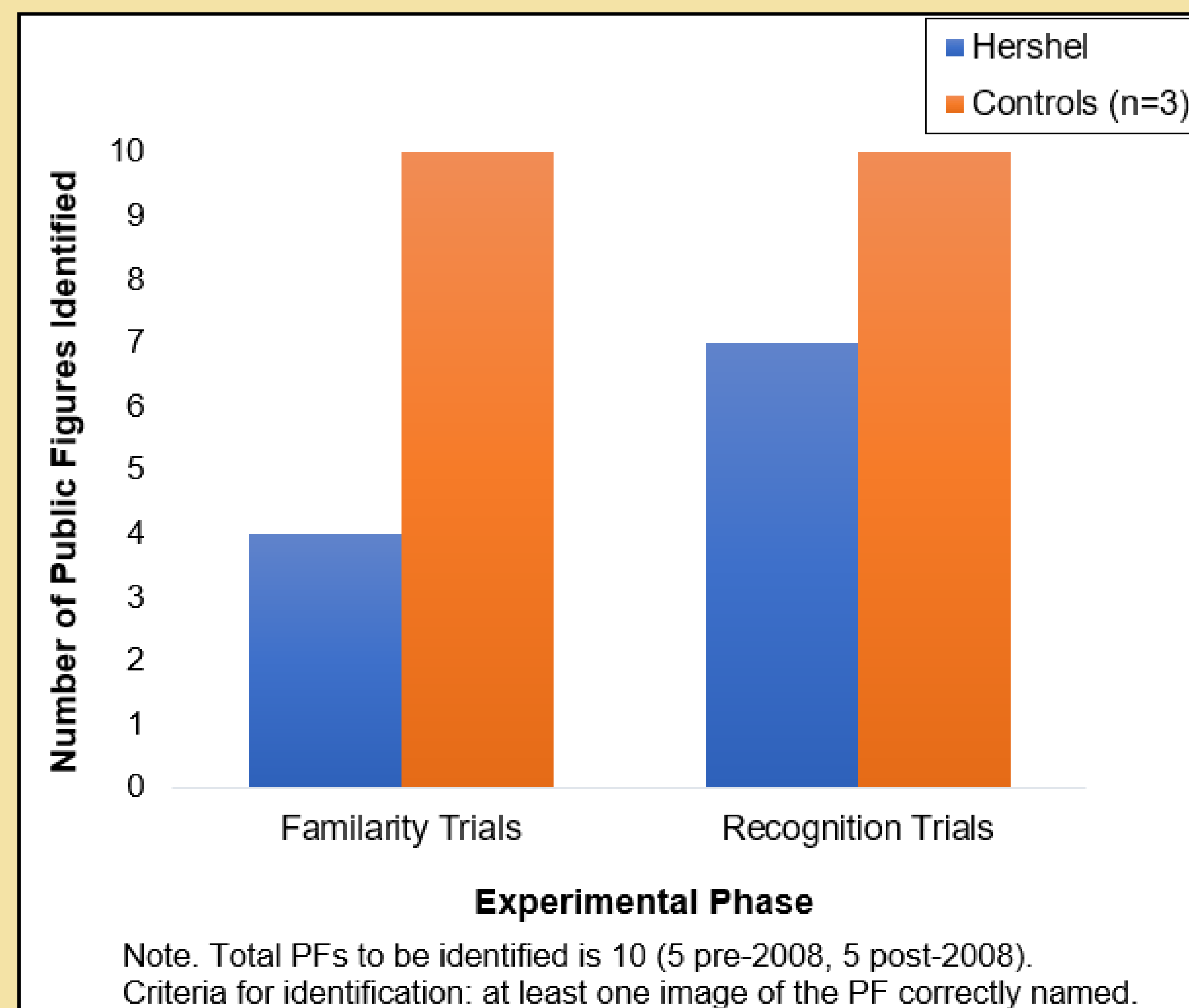
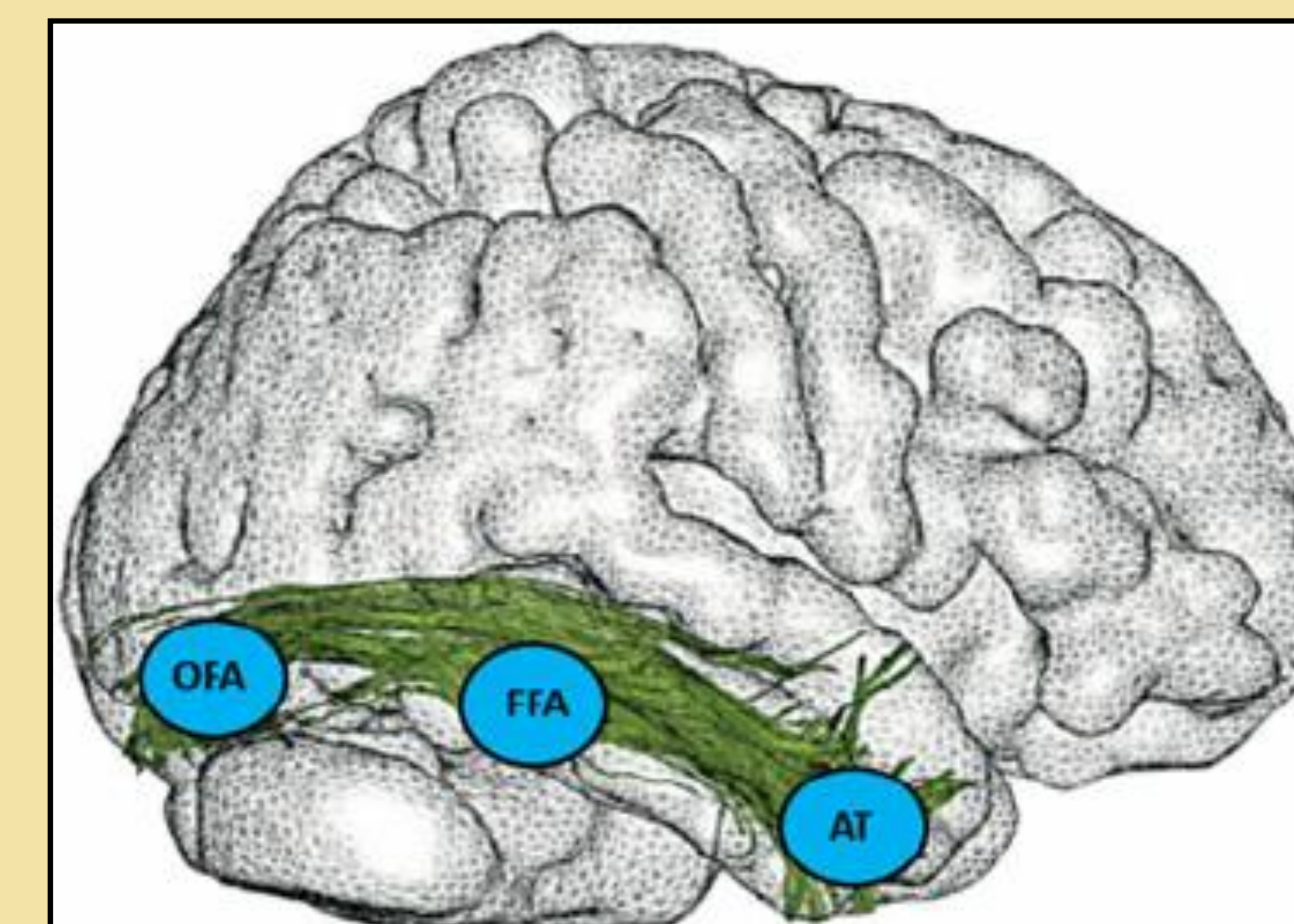


Figure 1. Bar chart comparing performance across trials.

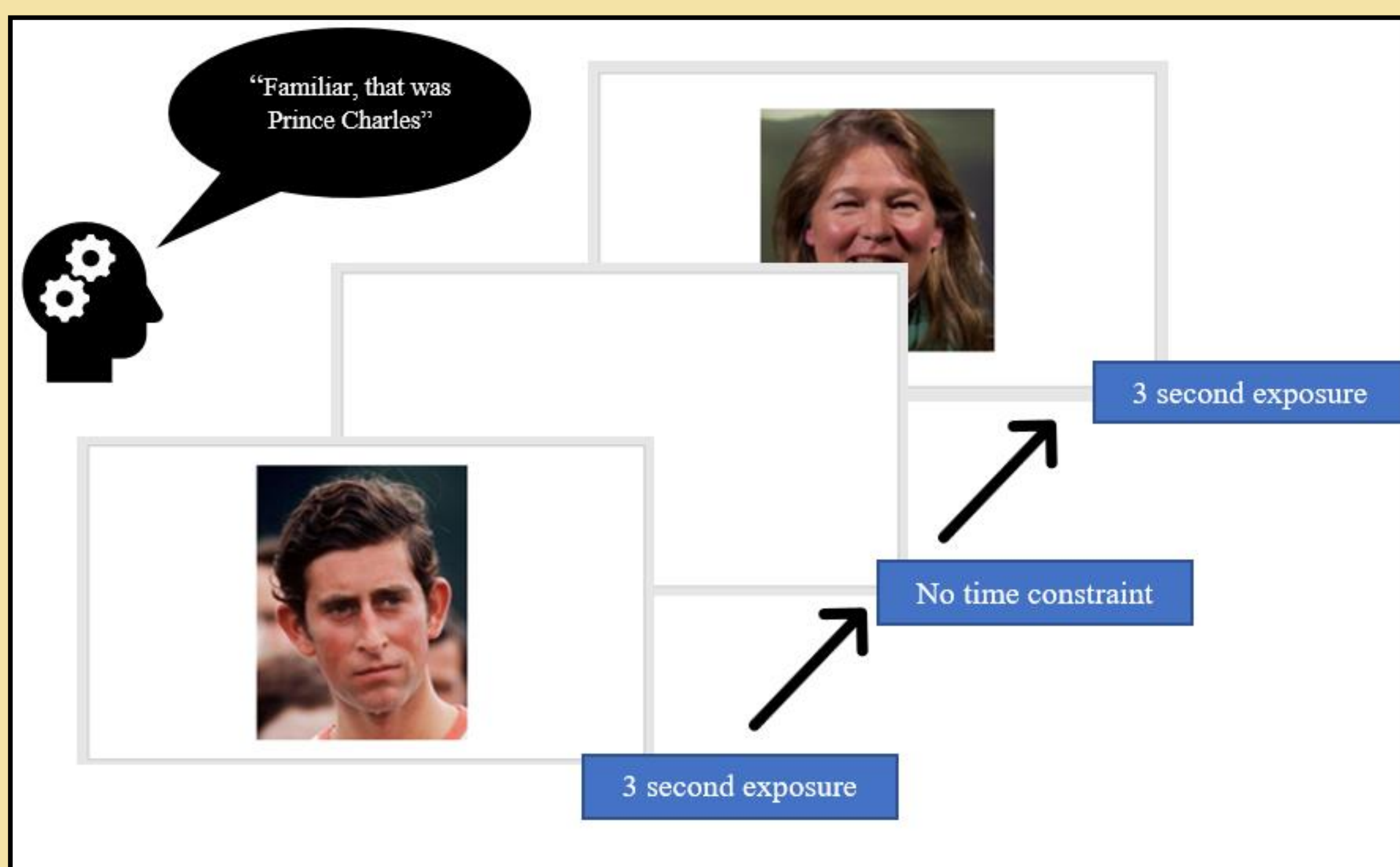
## Acquired Prosopagnosia (AP)

Manifests as inability to recognise faces. Commonly known as face blindness. Often caused by damage to face processing regions in the right side of the brain.



**Face-processing system:** Occipital Face Area (OFA), the Fusiform Face Area (FFA). Image credit (Rivolta et al., 2012)

## Methods



### Procedure (i) Familiarity phase

Face image followed by a blank screen. Faces were identified as familiar or not. This provided Herschel's baseline performance.



### Procedure (ii): Recognition Phase

Shown 6 images of each PF. Participants answered questions about each array, and indicated which images they recognised individually.

## Key Points

- (1) Herschel recognised images from after AP onset**  
Suggests face representations can be learnt independently of 'core' face processing areas.
- (2) Herschel recognised PFs when face images were presented simultaneously:**  
Varied face representations may reflect how we learn to recognise others.

### Acknowledgements:

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### References:

- De Haan, E. H., Young, A. W., & Newcombe, F. (1991). Covert and overt recognition in prosopagnosia. *Brain: A Journal of Neurology*, 114 (Pt 6), 2575-2591
- Sergent, J., & Poncet, M. (1990). From covert to overt recognition of faces in a prosopagnosic patient.
- Shallice, T. (1987) Impairments of semantic processing: multiple dissociations. *The Cognitive Neuropsychology of Language*, 111-127.
- Rivolta, D., Palermo, R., Schmalzl, L., & Coltheart, M. (2012). Covert face recognition in congenital prosopagnosia: a group study. *Cortex: a Journal Devoted to the Study of the Nervous System and Behavior*, 48(3), 344-352.