



Newborn infants demonstrate an extraordinary affinity toward faces. This is believed to be driven by a subcortical primitive mechanism tuned to the 'protface' stimulus: a face-like configuration of three dark blobs on a white background. This heavily biases input into their visual system, thereby supporting the development of cortical brain circuitry required for face processing, and related social cognitive functions.

This humble yet powerful 'three-dot' stimulus has therefore been the mainstay of investigations into newborns' face perception, pioneered by Professors John Morton and Mark Johnson. It continues to reveal numerous insights about typical and atypical face perception in adulthood, and forms the basis of my research at the MRC Social, Genetic and Developmental Psychiatry (SGDP) Research Centre at the Institute of

A baby's view of the protface

Image and words from Punit Shah, winner of this year's 'Big Picture' competition

Psychiatry, Psychology and Neuroscience.

What remains unclear, however, is whether orienting to the protface is present right throughout early development and/or whether it declines later in life. Equally, it remains to be seen whether a failure to attend to the protface leads to conditions such as developmental prosopagnosia ('face-blindness'). Well, I guess I have my work cut out for my PhD then...