Characterising Developmental Prosopagnosia: What can subtypes tell us?

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Developmental prosopagnosia (DP) is a heterogeneous condition. Some people fail to recognise faces due to problems with face perception (apperceptive subtype), whereas others show normal perception, but poor memory for faces (associative subtype). Furthermore, some (but not all) DPs report difficulties with other cognitive tasks, such as judging emotional expressions, navigation, and within-class object recognition. This study examined whether different subtypes of DP present with different cognitive profiles. We recruited a large group of DPs (N = 36) and control participants, and examined their performance on a range of cognitive and face-processing tasks. The DP group was split into subtypes using the Cambridge Face Perception Test (Duchaine, Germine, & Nakayama, 2007). Overall, differences between subtypes were minimal: both reported similar rates of problems with navigation and within-class object discrimination; both showed smaller inversion effects for faces than controls; neither showed a composite effect for faces; and neither showed impairments when asked to discriminate facial expression, age, and gender. However, the groups diverged when discriminating changes in facial features, spacing, and contours. Overall, our results suggest that different subtypes of DP may manifest in subtle ways. We will discuss how these differences may inform future research and training programmes for DPs.