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[AU1]

2 **Pareidolic Faces**

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6 **Synonyms**

7 ASD; Asperger's; Mind reading; Face blindness;
 8 Prosopagnosia

9 **Definition**

10 Pareidolia is the overinterpretation of stimuli in the external world to impose patterns where none exist. This can apply to any sensory modality but is most commonly applied to visual stimuli. Within this response, the term is often used to refer to the common human tendency to see faces where no faces are present. Familiar instances would include faces in the clouds, images of saviors in burnt toast, and the Man in the Moon (Liu et al. 2014).

20 Faces are perhaps the most socially significant visual stimuli encountered in the human environment (Palermo and Rhodes 2007). Autism spectrum disorder (ASD) is characterized by deficits in response to social stimuli (APA 2013). Thus, it has been hypothesized that the ASD may be less

susceptible to this illusion  neurotypical 26 humans. Furthermore, it has been suggested that 27 this feature may be used as a diagnostic tool to 28 identify ASD at a relatively early developmental 29 stage. Both of these hypotheses have received 30 some empirical support. 31

In respect of the former, there is evidence that 32 children with ASD do not pay particular attention 33 to real faces (Kikuchi et al. 2009), at least not 34 spontaneously (Guillon et al. 2016). 35

In respect of the latter, it has been found that 36 children with ASD are less sensitive to pareidolic 37 faces – that is, to objects that most people sponta- 38 neously report as possessing a face (Ryan 39 et al. 2016). 40

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