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Chapter Title	Pareidolic Faces	
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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
 11 external world to impose patterns where none
 12 exist. This can apply to any sensory modality but
 13 is most commonly applied to visual stimuli.
 14 Within this realm, the term is often used to refer
 15 to the common human tendency to see faces
 16 where no faces are present. Familiar instances
 17 would include faces in the clouds, images of sav-
 18 iors in burnt toast, and the Man in the Moon (Liu
 19 et al. 2014).

20 Faces are perhaps the most socially significant
 21 visual stimuli encountered in the human environ-
 22 ment (Palermo and Rhodes 2007). Autism spec-
 23 trum disorder (ASD) is characterized by deficits in
 24 response to social stimuli (APA 2013). Thus, it
 25 has been hypothesized that th 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

References and Reading 41

American Psychiatric Association. (2013). *Diagnostic and* 42
statistical manual of mental disorders (5th ed.). 43
 Washington, DC: Author. 44
 Guillon, Q., Rogé, B., Afzali, M. H., Baduel, S., Kruck, J., 45
 & Hadjikhani, N. (2016). Intact perception but abnormal 46
 orientation towards face-like objects in young chil- 47
 dren with ASD. *Scientific Reports*, 6, 22119, 1–9. 48
 Kikuchi, Y., Senju, A., Tojo, Y., Osanai, H., & Hasegawa, 49
 T. (2009). Faces do not capture special attention in 50
 children with autism spectrum disorder: A change 51
 blindness study. *Child Development*, 80(5), 52
 1421–1433. 53
 Liu, J., Li, J., Feng, L., Li, L., Tian, J., & Lee, K. (2014). 54
 Seeing Jesus in toast: Neural and behavioral correlates 55
 of face pareidolia. *Cortex*, 53, 60–77. 56

- 57 Palermo, R., & Rhodes, G. (2007). Are you always on my
58 mind? A review of how face perception and attention
59 interact. *Neuropsychologia*, *45*, 75–92. 62
- 60 Ryan, C., Stafford, M., & King, R. J. (2016). Brief report:
61 Seeing the man in the moon: Do children with autism
perceive Pareidolic faces? A pilot study. *Journal of* 62
Autism and Developmental Disorders, *46*(12), 63
3838–3843. 64

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