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The neural systems sustaining face and proper-name processing.

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Erratum in

Brain 1998 Dec;121(Pt 12):2402. Tempini ML [corrected to Gorno-Tempini ML].

Abstract

This PET study has revealed the neural system involved in implicit face, proper-name and object name processing during an explicit visual 'same' versus 'different' matching task. Within the identified system, some areas were equally active irrespective of modality (faces or names) or type of stimuli (famous and non-famous) while other areas exhibited differential effects. Our findings support the hypothesis that faces and names involve differential pre-semantic processing prior to accessing a common neural system of stored knowledge of personal identity which overlaps with the one associated with object knowledge. The areas specialized for the perceptual analysis of faces (irrespective of whether they are famous or non-famous) are the right lingual and bilateral fusiform gyri, while the areas specialized for famous stimuli (irrespective of whether they are faces or names) spread from the left anterior temporal to the left temporoparietal regions. One specific area, the more lateral portion of the left anterior middle temporal gyrus, showed increased activation for famous faces relative to famous proper names and for famous proper names relative to common names. The differential responsiveness of this region when processing familiar people suggests functional segregation of either personal attributes or, more likely, the demands placed on processes that retrieve stored knowledge when stimuli have highly similar visual features but unique semantic associations.

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**Publication type, MeSH terms, Grant support****LinkOut - more resources**