3-18-1998

The functionally defined "face area" is engaged by subordinate-level recognition

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Published In
JOURNAL OF COGNITIVE NEUROSCIENCE, 35.
THE FUNCTIONALLY DEFINED "FACE AREA" IS ENGAGED BY SUBORDINATE-LEVEL RECOGNITION
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We recently reported that activation for subordinate-level recognition of common objects falls in the group-averaged fusiform "face area". We replicated this finding with the face area defined functionally in individuals. Imaging parameters were identical to the original study. Subjects (11) performed two different tasks: 1-Passive viewing of faces vs. objects (F-O), to localize the face area and 2- Categorizing whether a picture of a familiar object matched a basic or subordinate label presented auditorily (S-B). 5x5 pixel regions of interest (ROI) were defined according to the average or each individual face area. Percent signal change was summed in each ROI. An ANOVA performed on the group-averaged ROI indicated greater activation in the face area for F-O than for S-B, as well as greater activation in the face area than surrounding ROIs, only for F-O. However, a similar analysis performed on individually-defined ROIs showed that the face area was more active than ROIs surrounding it for both tasks, with no difference between them in the face area. Even when the face area is defined functionally, categorization level can account for a significant part of the activation found when comparing faces to objects. Other recent findings indicate that expertise with non-face objects can also lead to the recruitment of the face area. Together, these two factors may explain most of the specialization in the middle fusiform area, widely considered to be selective for face processing.