Category selectivity in human visual cortex: Beyond visual object recognition

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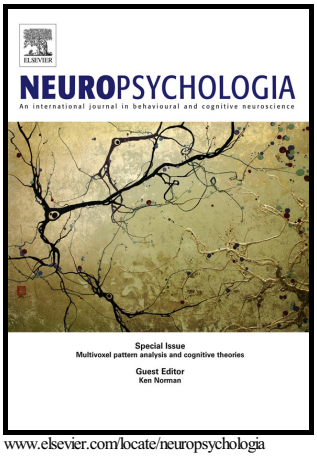

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Category selectivity in human visual cortex: beyond visual object recognition

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Abstract

Human ventral temporal cortex shows a categorical organization, with regions responding selectively to faces, bodies, tools, scenes, words, and other categories. Why is this? Traditional accounts explain category selectivity as arising within a hierarchical system dedicated to visual object recognition. For example, it has been proposed that category selectivity reflects the clustering of category-associated visual feature representations, or that it reflects category-specific computational algorithms needed to achieve view invariance. This visual object recognition framework has gained renewed interest with the success of deep neural network models trained to “recognize” objects: