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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Permalink

<https://escholarship.org/uc/item/510302t4>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 44(44)

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Publication Date

2022

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Peer reviewed

Face-preferring regions in FFA, STS, and MPFC have different functions.

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Abstract

Faces are an important source of perceptual and social information. Multiple cortical regions including the fusiform faces area (FFA), the superior temporal sulcus (STS), and medial prefrontal cortex (MPFC) respond more to dynamic faces than videos of toy objects, human bodies, and pastoral scenes. Do face-preferring regions in FFA, STS, and MPFC have different functions? To address this question, we re-analyzed functional magnetic resonance imaging (fMRI) data from seven different experiments that included a dynamic faces versus objects localizer. Each of the seven experiments tested different perceptual and social features using dynamic videos, point light displays, narratives, and animated cartoons. Using a functional region of interest approach, we observed a significant condition by region interaction in four of the seven experiments. Thus, although FFA, STS, and MPFC respond more to dynamic faces than objects, bodies, and scenes, these three regions differ from each other functionally.