UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Biological Motion Perception under Attentional Load

Permalink

https://escholarship.org/uc/item/28x2c3rb

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)

Authors

Nizamoglu, Hilal

Urgen, Burcu A.

Publication Date

2021

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at https://creativecommons.org/licenses/by/4.0/

Peer reviewed

eScholarship.org Powered by the California Digital Library
University of California

Biological Motion Perception under Attentional Load

Hilal Nizamoglu
Bilkent University, Ankara, Turkey

Burcu A. Urgen
Bilkent University, Ankara, Turkey

Abstract

Biological motion perception is supported by a network of regions in the occipito-temporal areas, primarily in superior temporal sulcus (STS), and premotor cortex (PMC). How biological motion is processed outside the focus of attention and whether it is modulated by attentional load remain unknown. We investigated the bottom-up processing of biological motion under different levels of attentional load (high vs. low) with functional magnetic resonance imaging (N=13). In line with previous work, we found that fronto-parietal attention regions were significantly more activated when the attentional load was high than when it was low. Importantly, biological motion under low attentional load yielded activity in STS and PMC, whereas biological motion under high load was restricted only to the low-level motion sensitive areas. These results show that biological motion is processed outside the focus of attention and it is modulated by attentional load.