

Face recognition is affected by similarity in spatial a spatial frequency range to a greater degree than within-category object recognition.

Charles A. Collin, Chang Hong Liu, Nikolaus F. Troje, Patricia A. McMullen and Avi Chaudhuri

Previous studies have suggested that face identification is more sensitive to variations in spatial frequency content than object recognition, but none have compared how sensitive the 2 processes are to variations in spatial frequency overlap (SFO). The authors tested face and object matching accuracy under varying SFO conditions. Their results showed that object recognition was more robust to SFO variations than face recognition and that the vulnerability of faces was not due to reliance on configural processing. They suggest that variations in sensitivity to SFO help explain the vulnerability of face recognition to changes in image format and the lack of a middle-frequency advantage in object recognition.