

Reference frames for orientation anisotropies in face recognition and biological-motion perception.

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Both face recognition and biological-motion perception are strongly orientation-dependent. Recognition performance decreases if the stimuli are rotated with respect to their normal upright orientation. Here, the question whether this effect operates in egocentric coordinates or in environmental coordinates is examined. In addition to the use of rotated stimuli the observers were also rotated and tested both with a same ^ different face-recognition task and with a biological-motion detection task. A strong orientation effect was found that depended only on the stimulus orientation relative to the observer. This result clearly indicates that orientation effects in both stimulus domains operate in an egocentric frame of reference. This finding is discussed in terms of the particular requirement of extracting sophisticated information for social recognition and communication from faces and biological motion.