# Lateral occipital cortex and self-other processing

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**Abstract**

Because humans are a social species, we interact with others on every aspect of life. Much information on others identities, emotions and intentions can be gathered from visual processing of their faces. However, the rest of the body also carries substantial information. Body movements are an essential communication media, whether for identifying others intentions or actions or for learning from them. Over the last ten years, much attention has been given to an area in the lateral occipital cortex, named Extrastiate Body Area (EBA), that responds to vision of body parts when presented as photographs, line drawings, stick figures or silhouettes. However, responses in EBA have also been observed during imagined or executed movements. It is also more activated in response to images of body parts presented from an allocentric rather than an egocentric perspective. Taken together, these findings suggest that EBA is not only involved in the visual processing of static body representations, but could represent the body in a multisensory and dynamic manner. EBA is very likely involved in self processing as well as in disentangling self- from other bodies and actions. In the present talk we will present results from several experiments exploring the role of EBA in self-other discrimination and in understanding others actions. Taken together, our results suggest a strong implication of EBA in the processing of dynamic and socially relevant body and action representations.

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