Loss of Action-related Function in The Blind Extrastriate Body Area

Introduction

Retention of visual streams
Task Specific Sensory Independent
EBA responds to movements

Loss of Action-related Function in The Blind Extrastriate Body Area

Methods

Experiment 1
Active unilateral movements

Experiment 2
Resting state functional scan

Somatotopic preference
Connectivity ROIs

Results

EBA’s responds to movements in the sighted but not in the blind
EBA’s resting state connectivity is less expansive in the blind brain

Congenital blindness alters the EBA’s connectivity profile

Discussion

• Vision is crucial for the development of the action-related function of EBA
• From a predictive processing standpoint, EBA can be seen as an important site for generating predictions (models) and for calculating errors
• EBA could be superseded by other areas (presumably parietal cortices) in the blind that are closer to somatosensory inputs, and thus more computationally efficient

Feedforward connections
Predictive processing

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