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ACCEPTED MANUSCRIPT

NEURAL REUSE OF ACTION PERCEPTION CIRCUITS FOR LANGUAGE, CONCEPTS AND COMMUNICATION

running head: ACTION PERCEPTION CIRCUITS FOR LANGUAGE, CONCEPTS AND COMMUNICATION

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Highlights

Neuroanatomical structure specific to humans and neural plasticity driven by correlation predicts the formation of circuits binding together information about actions and perceptions.

These action perception circuits provide mechanisms for working memory, intention and prediction, attention, and combination, including abstract rule formation.

The review discusses results indicating that

(1) Action perception circuits for language sounds and spoken word forms differ in their cortical distribution depending on phonological properties (e.g., place of articulation).

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