

Exploring a Linguistic System in the light of Electroencephalogram

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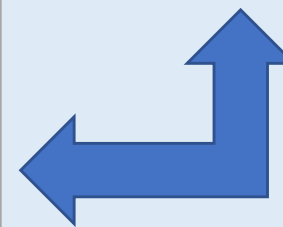
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Studies accumulated in the field of Linguistics

- Syntax
e.g. Scopes in sentences (multiple interpretations available)
She didn't get married to him because he was rich. (Married? Not Married?)
- Semantics
e.g. Figure-Ground Alternation in languages
John wiped *the table* off of *dust*
John wiped *the dust* off of *the table*
e.g. m'ings & word orders in Eng. particles
John threw {up} the ball {up}. *The red order is preferred.*
John threw {up} the food {up}.

Studies accumulated in the field of the Cognitive Science

- Figure-Ground Differentiation
e.g. Rubin's face-vase reversal
- Blood flow changes in the brain
e.g. bmo MRA



Interface bwn language and cognition is not well discovered

IN THIS RESEARCH UNIT, BY USING THE METHOD OF EEG, WE ARE GOING TO

- (1) discover the way how human beings interpret the multiple scopes in language.
- (2) discover the place where in the brain we store the grammar of language for cognition.
- (3) explore the theory in which cognition by human beings is commanded solely by language.

OUTCOME FROM THIS RESEARCH UNIT WILL POSSIBLY PROMOTE R&D IN THE AREA OF

- (1) language processing bmo AI, (2) better mechanism for machine translation, (3) medicine for language and communication, and many more :)