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Language processing inside the human brain

Current neurolinguistics models

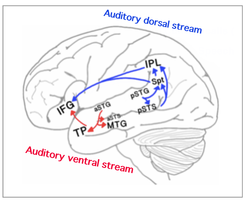


Diagram 1

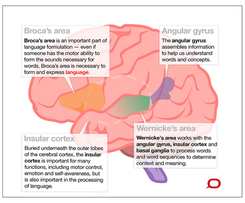


Diagram 2

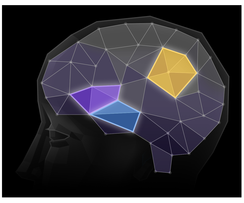


Diagram 3

Middle Temporal Gyrus - MTG (Diagram 1) works with the **Insular Gyrus** (Diagram 2).

They correspond to the **Blue Area** (Diagram 3).

This area of the brain is responsible for language processing - phonetic detection concept merging, semantic analysis - it helps the user **receive/asimilate** the content in the target language.

Readback is adressed to this area of the brain but it also improoves the processes in the other areas involved in language processing.

Inferior Frontal Gyrus - IFG (Diagram 1) is roughly the same as **Broca's Area** (Diagram 2).

They correspond to the **Purple Area** (Diagram 3).

This area of the brain is responsible for language formulation - it helps the user **speak** the words or phrases in the target language.

Recall stimulates this area in order for it to formulate the required word or phrase in the target language.

Inferior Parietal Lobe - IPL (Diagram 1) works with the **Angular Gyrus** (Diagram 2).

They correspond to the **Yellow Area** (Diagram 3)

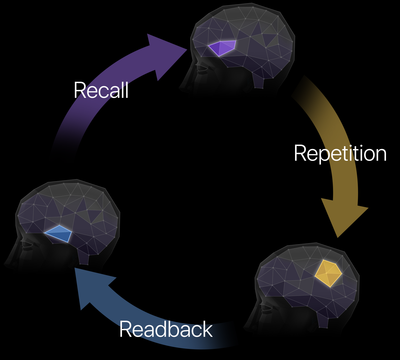
IPL - is the area of the brain responsible for managing multiple phonetic representations for the same semantic/concept (corelates with rich vocabulary or **multilingualism**) - it helps the user **cement** the knowledge of the target language.

Angular Gyrus - is the area of the brain responsible for concept understanding.

Repetition stimulates this area in order for it to better manage the new phonetic representations.

Conclusion

The diagram should look like this:



References:

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