IB Psychology: Biological Approach Vocab Support

**Topic: Localization of Function**

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| **Term** | **Definition** | **Other links** |
| Localization of function | Specific brain areas are associated with precise beh’s/emotions/cog’s |  |
| Broca’s Area | Paul Broca/’Tan’ – area of brain (left frontal cortex) associated w/speech production |  |
| Wernicke’s Area | Temporal lobe area associated w/language comprehension of written/spoken lang. |  |
| Brain hemisphere | Brain separated into 2 ‘halves’ – both in own way have localized areas |  |
| Arcuate fasciculus | Nerve fiber bundles that connect neural pathways between two areas |  |
| Norman Geschwind | 20th C neurologist who hypothesized that the arcuate fasciculus b/w Broca’s Area & Wernicke’s Area was critical for language to take place | *This suggests an interconnection not accounted for by strict localization* |
| Distribution of brain function | That multiple brain areas are interconnected & implicated in beh’s/emotions/cog’s (ie: memory, Lashley) |  |
| **Term** | **Definition** | **Other links** |
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| Lesion | Area of damage (intentional, infection) |  |
| Cortex | Outer inch of the brain; wrinkly areas involved with higher order processes (thinking, DMing) |  |
| Equipotentiality | Ability of cortex to adopt other functions of other cortex ‘jobs’  Brain illustrates limits of localization due to this potential | Neuroplasticity research demonstrates this |
| Connectome | Neural network |  |
| [Human Connectome Project](http://www.humanconnectomeproject.org/) | Brain scanning project that aims to map neural networks and explore extent to which the brain is interconnected | Project work like this further complicate notion of localization but show how other brain areas assist areas that do have specific functions |
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