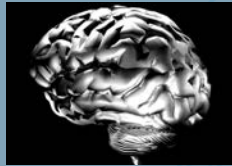


## Language & Aphasia

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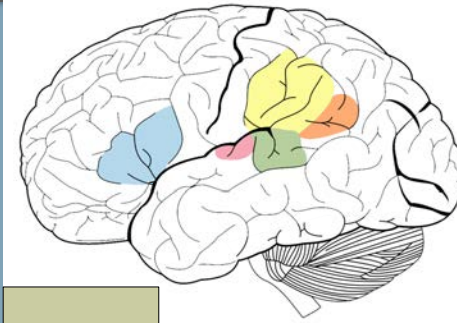
Amanda Gooding, Ph.D.  
Marc Norman, Ph.D.  
Department of Psychiatry  
Neuropsychiatry and Behavioral Medicine  
Neuropsychology Clinical Training Seminar

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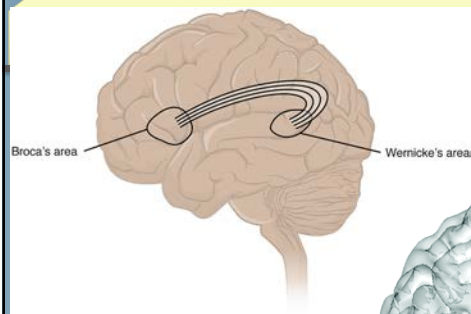
## Review

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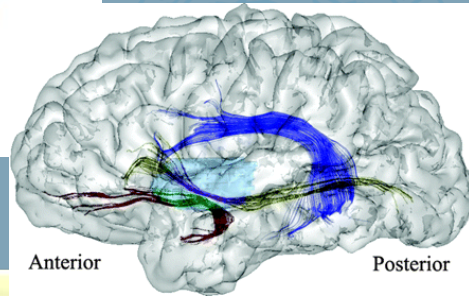


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Anterior

Posterior

## Components of Language

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- **Phonology** – smallest unit of sound
- **Morphology** – smallest unit of meaning (also – lexeme)
- **Syntax** – set of rules
  - Grammar, structure, order
- **Semantics** – meaning
- **Pragmatics** – context or transmission of meaning
  - Prosody, nonverbal skills, social aspects of communication

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## Terms

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- **Aphasia** – defect in language *processing*
  - Receptive or expressive
- **Dysarthria** – *motor* speech disorder
  - Respiration, phonation, resonance, prosody, and articulation
- **Apraxia** of speech
  - Planning and programming aspect of the motor-speech system
- **Anomia** or **Dysnomia**
  - Non-fluent syndromes → initiation or production
  - Fluent syndromes → selection problems or WFD



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## More Terms

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- **Neologisms** – made up or new word
- **Paraphasias** – language error or substitution
  - Semantic (“tiger” for “lion” or “pear” for “fruit”)
  - Phonemic (“gingerjed” for “gingerbread” or “fed” for “fled”)
- **Circumlocutions** – speaking in a roundabout way
- **Pure Word Deafness** – rare disorder involving loss of auditory comprehension of speech (react as though they are deaf, though able to read, write, and speak)



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## What are we measuring?

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- Spontaneous speech
  - Fluency, prosody, grammar/meaning, paraphasias, articulation
- Naming
  - Visual confrontation, auditory responsive, objects/parts
  - Nouns, verbs, proper nouns, colors, etc.
- Comprehension
  - Commands (simple to complex)
  - Yes/no questions, multiple choice
  - Point to objects



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## What are we measuring?

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- Repetition
  - Single words
  - Simple/complex sentences
- Reading
  - Aloud, comprehension
- Writing
  - Spelling simple words
  - Copy, spontaneous sentences



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## Causes of Aphasia

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- Vascular events – ischemic or hemorrhagic
- Ictal or post-ictal deficit w/ dominant hemisphere seizures
- Mass lesions – tumors, abscess
- Inflammatory or autoimmune disorders
- Developmental disorders
- Degenerative disorders – AD, PPA
- Cerebral contusion or trauma
- Subdural or epidural hematoma



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## Progressive Aphasias

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- Frontotemporal Dementia (FTD)
  - Primary Progressive Aphasia (PPA)
    - Progressive nonfluent aphasia (PNFA)
    - Semantic Dementia (SD)
    - Logopenic progressive aphasia (LPA)
  - Pick's disease
  - Progressive Supranuclear Palsy (PSP)
- Alzheimer's Disease



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## Aphasia Classification

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Aphasia Type	Fluency	Repetition	Comprehension	Naming
Broca's aphasia				
Transcortical motor aphasia				
Wernicke's aphasia				
Conduction aphasia				
Transcortical sensory aphasia				
Global aphasia				



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## Aphasia Classification

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Aphasia Type	Fluency	Repetition	Comprehension	Naming
Broca's aphasia	non-fluent	impaired	relatively intact	impaired
Transcortical motor aphasia				
Wernicke's aphasia				
Conduction aphasia				
Transcortical sensory aphasia				
Global aphasia				



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Aphasia Classification								
Aphasia Type	Fluency	Repetition	Comprehension	Naming				
Broca's aphasia	non-fluent	impaired	relatively intact	impaired				
Transcortical motor aphasia								
Wernicke's aphasia					fluent	impaired	impaired	impaired
Conduction aphasia								
Transcortical sensory aphasia								
Global aphasia								

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Aphasia Classification								
Aphasia Type	Fluency	Repetition	Comprehension	Naming				
Broca's aphasia	non-fluent	impaired	relatively intact	impaired				
Transcortical motor aphasia								
Wernicke's aphasia					fluent	impaired	impaired	impaired
Conduction aphasia					fluent	impaired	relatively intact	impaired
Transcortical sensory aphasia								
Global aphasia								

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Aphasia Classification				
Aphasia Type	Fluency	Repetition	Comprehension	Naming
Broca's aphasia	non-fluent	impaired	relatively intact	impaired
Transcortical motor aphasia	non-fluent	intact	relatively intact	impaired
Wernicke's aphasia	fluent	impaired	impaired	impaired
Conduction aphasia	fluent	impaired	relatively intact	impaired
Transcortical sensory aphasia				
Global aphasia				

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Aphasia Classification				
Aphasia Type	Fluency	Repetition	Comprehension	Naming
Broca's aphasia	non-fluent	impaired	relatively intact	impaired
Transcortical motor aphasia	non-fluent	intact	relatively intact	impaired
Wernicke's aphasia	fluent	impaired	impaired	impaired
Conduction aphasia	fluent	impaired	relatively intact	impaired
Transcortical sensory aphasia	fluent	intact	impaired	Impaired
Global aphasia				

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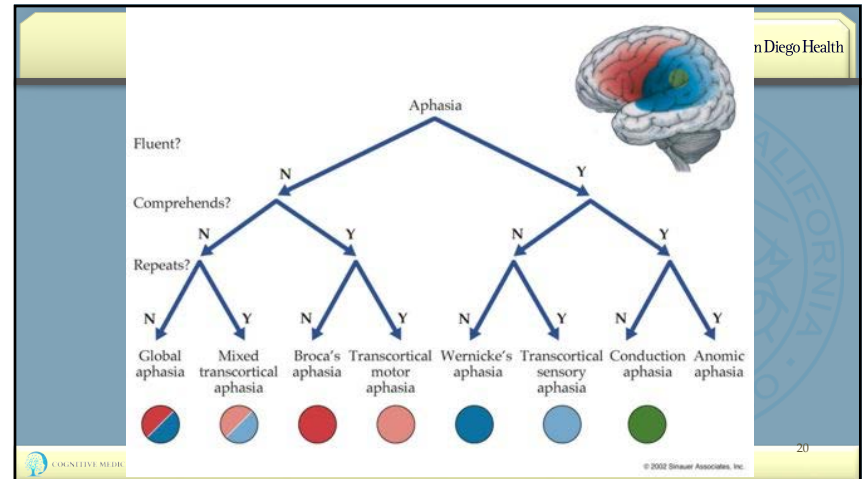
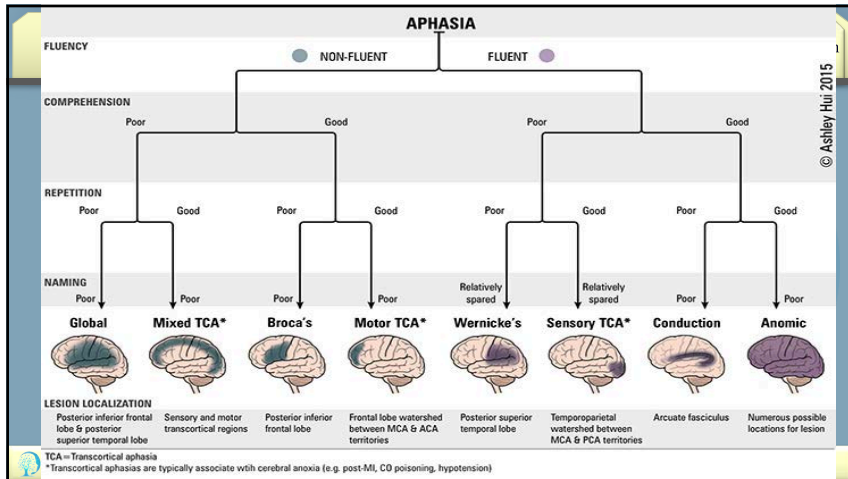
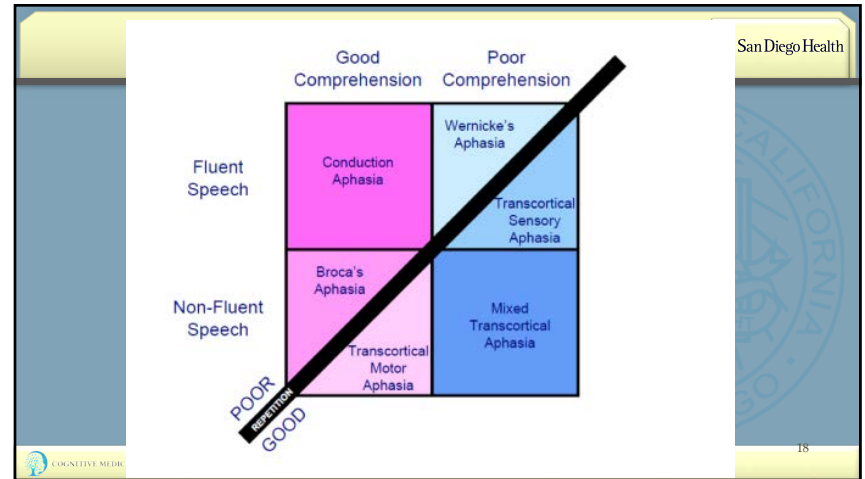
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### Aphasia Classification

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Aphasia Type	Fluency	Repetition	Comprehension	Naming
Broca's aphasia	non-fluent	impaired	relatively intact	impaired
Transcortical motor aphasia	non-fluent	intact	relatively intact	impaired
Wernicke's aphasia	fluent	impaired	impaired	impaired
Conduction aphasia	fluent	impaired	relatively intact	impaired
Transcortical sensory aphasia	fluent	intact	impaired	Impaired
Global aphasia	impaired	impaired	impaired	impaired

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**VIDEOS!!**

