


Using Neuropsychological Assessment to Help Children with Learning Difficulties Thrive: A Guide for Parents, Educators, and Clinicians

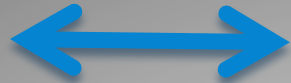
Claudia L. Kernan, Ph.D.
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- Part One: Overview
 - Part Two: Case studies

What is Pediatric Neuropsychology?

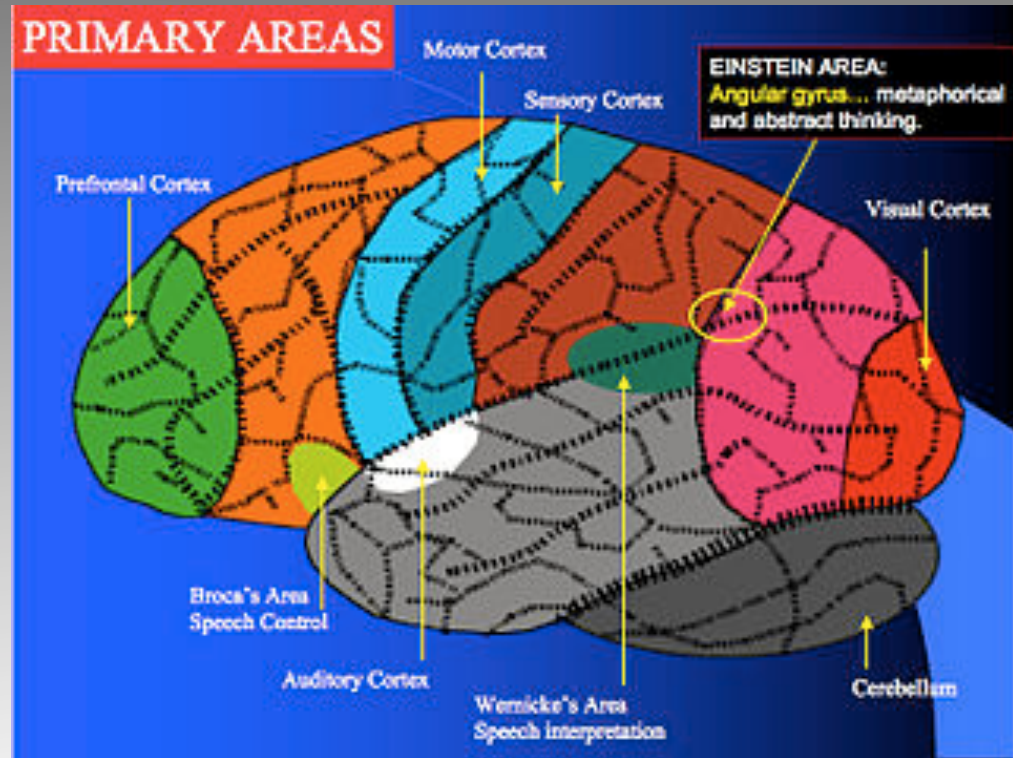
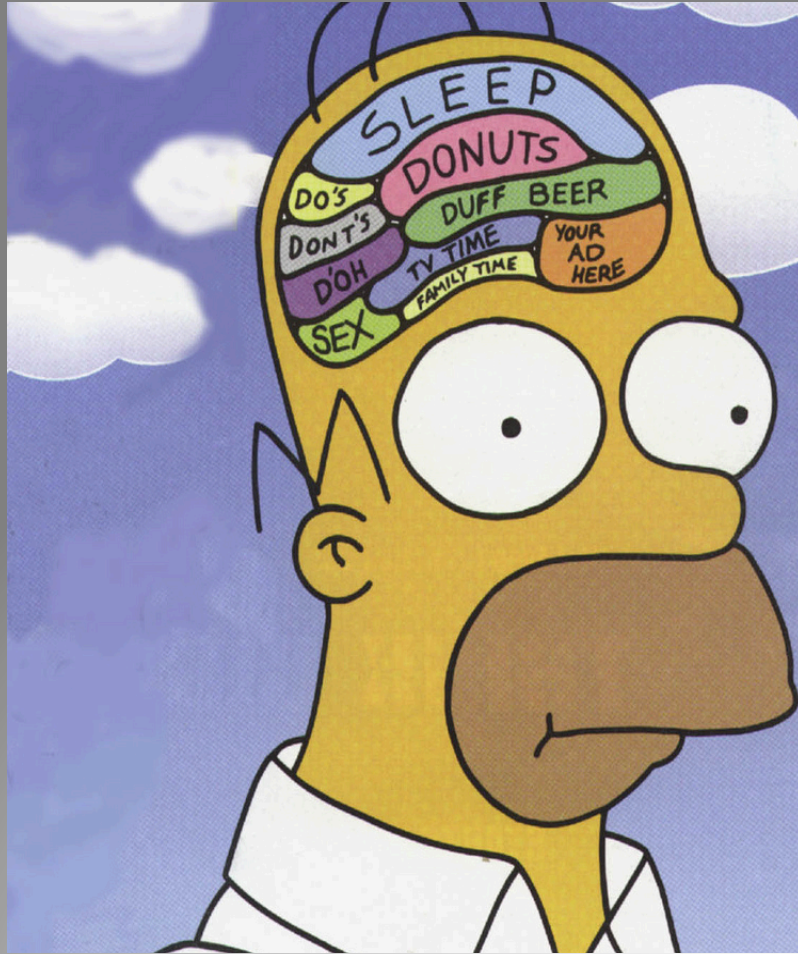
- Neuropsychology

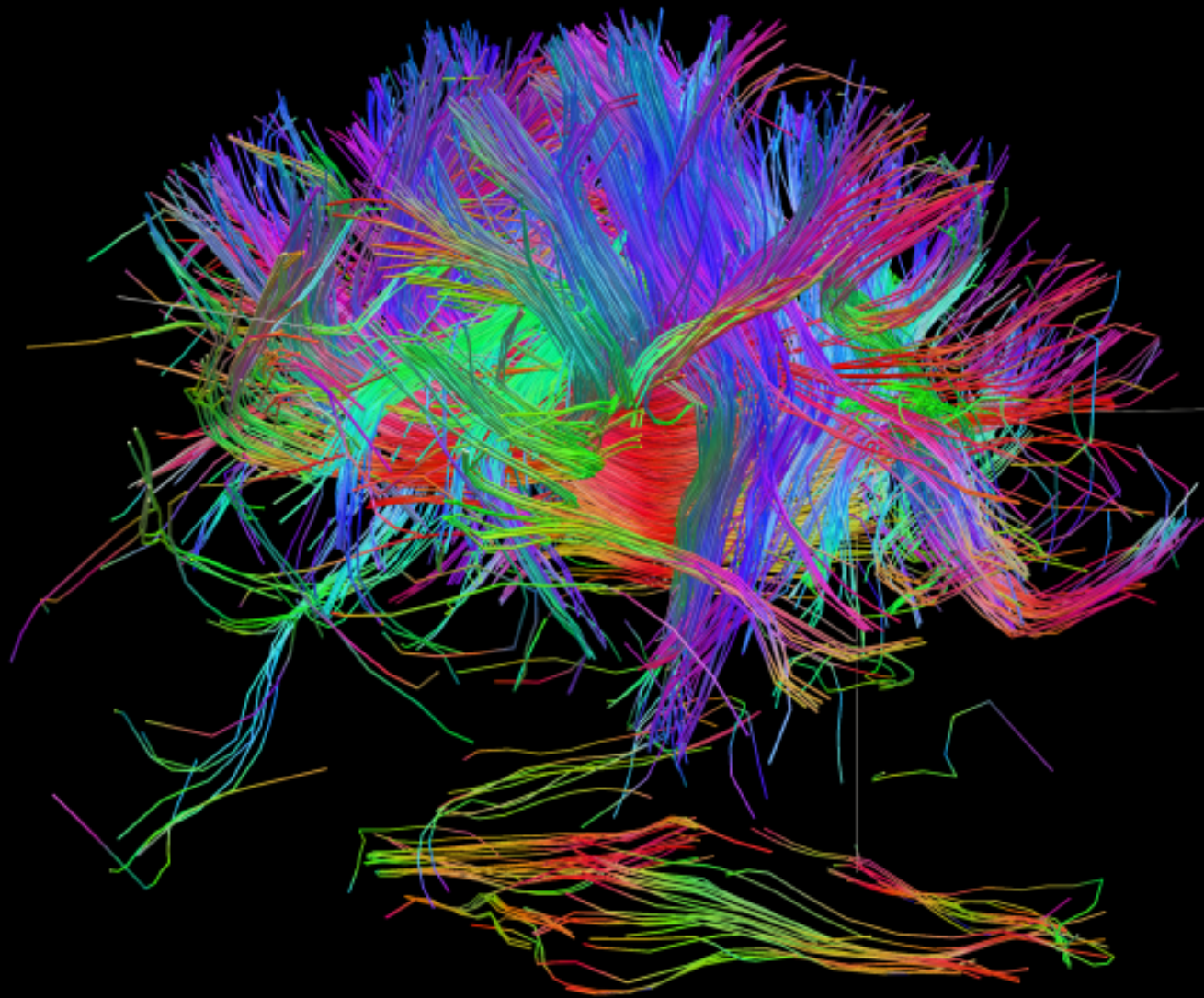
Brain



Behavior

- Clinical Neuropsychology/Neuropsychological Assessment
- Developmental Perspective







Neuropsychological Tests

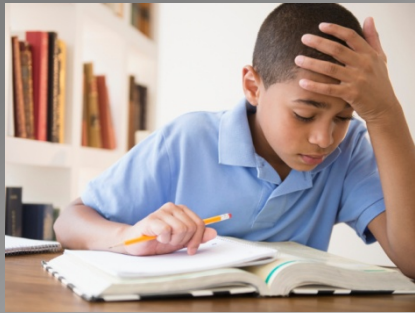
Who can neuropsychology help?

- Difficulties with learning, attention, behavior or mood
- An illness, disease, or problem with development that affects the brain
- A brain injury from an accident or other trauma

- Learning Disabilities
- Autism
- Language Disorders
- Attention problems (ADHD)
- Brain Injuries and Concussions
- Illnesses that affect the brain
 - Epilepsy
 - Cancer

Also...

- Subtle problems



Anxiety?



Stress?

- Talents



Giftedness



Creativity



Use strengths to change or work around weaknesses

Psychoeducational vs. Neuropsychological Assessment

- Often performed in a school context
- Focused on identifying ability-achievement discrepancies
- Sometimes a first step for children without complex medical issues
- Focuses more on “what” than on “why”
- Neuropsychologist qualifications

Toolbox:

- In-depth interviews
- Records from multiple sources
- Tests

- General Intellectual Ability
- Academic Skills
- Attention
- Executive Functions
- Memory
- Language
- Visual and Auditory Processing
- Social and Emotional Factors





Self Discovery



Angela



Ryan

- Motivated
- “Spotty” comprehension of class lessons
- Poor reading comprehension, decoding seems okay
- “Sweet” kids who get along well with adults
- Social difficulties with peers
- “Meltdowns” or age-inappropriate reactions to stress

Ryan: Interview

- Early development on track
- No medical problems
- Behaviors and social skills
 - Fidgety
 - Difficulties with social cues
 - Meltdowns
 - Creative and funny
- Academic history
 - Delayed reading acquisition
 - Received reading intervention

Record Review

- Inattentive and impulsive behaviors
- Meltdowns

- IQ: 95th percentile
- Verbal \approx Nonverbal
- Processing speed ↓
- Working memory: Good but “spotty”

Additional Neuropsychological Testing...

Weaknesses

- Attention and concentration
- Executive Functioning

Strengths

- Memory: Strong but “spotty”
- Language

Academic Skills

- Reading
 - Untimed vs. Timed
 - Single words vs. Passages
- Written expression
 - Words and sentences vs. Essay
 - Handwriting (fine motor)
- Math
 - Careless errors

Social-Emotional

- Mild anxiety
- Not on autism spectrum

- ADHD
- Reading Disorder (Fluency and Comprehension)

Explains:

Spotty listening comprehension

Social problems and meltdowns

Low reading comprehension scores in school

The plan....

- Interventions
- Accommodations

Interventions

- Medication consultation
- Behavioral intervention
- Social skills group for children with ADHD
- Educational therapy

Accommodations

Tests (Modifications to help him demonstrate what he truly knows)

- Extended time
- Oral examinations
- Access to teacher to answer questions Ryan has pertaining written instructions on a test

- Additional time to complete in-class tasks
- Option of books on tape
- Large assignments broken down into smaller assignments
- Oral and written instructions regarding announcements/assignments
- Preferential seating towards the front of the classroom
- Pre-warning of tests/quizzes/long-term assignments
- Written handouts or notes concerning material on board and lectures
- Teacher engagement (check for understanding information, provide clear and brief instructions, provide proofreading assistance)
- Spelling not graded on writing assignments/essay exams
- Use of a word processor

Angela...

- IQ ↑
- Verbal < Nonverbal
- Decoding and fluency ↑
- Language ↓
- Anxiety ↑
- Social difficulties (shyness and intense anxiety)

- Language Disorder
- Anxiety Disorder

Explains:

Spotty listening comprehension

Social problems and meltdowns

Low reading comprehension scores in school

Interventions

- Medication consultation
- Psychotherapy
- Speech therapy
- Educational therapy

Accommodations

- Access to teacher for clarification of test instructions
- Visual aids whenever possible
- Additional time to answer questions
- Additional time to complete in-class tasks
- Additional time to process information
- Lead time to prepare oral responses if she is to answer a question/lead a discussion/or give an oral presentation
- Written handouts or notes concerning material on board and lectures
- Teacher engagement (check for understanding information, provide clear and brief instructions, provide proofreading assistance)



Neuropsychology....

From “what” to “why”



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