Reading Disorder of Whole Word Decoding

Reading Disorder of Whole Word Decoding

- More environmentally influenced
- Reader relies on Whole Word strategies
- This causes problems in reading accuracy, reading fluency and comprehension.
- Longitudinal study from elementary to ages 18-22
- This “Reading Disorder” is most often found in disadvantaged schools.

Kersting, S. (November 2003). Study Shows Two Type of Reading Disability. Monitor On Psychology, 34 (10), p. 15.

Reading Disorder of Whole Word Decoding

- Those with Reading Disorder/Dyslexia had disrupted neurological systems for reading, but developed compensatory pathways fMRIs showed.
- Those with Reading Disorder of Whole Word Decoding had proper neural circuitry systems for reading, but they were improperly connected as indicated by fMRIs.
- Need early language and literacy intervention to counter this.

Kersting, S. (November 2003). Study Shows Two Type of Reading Disability. Monitor On Psychology, 34 (10), p. 15.

Shaywitz, S. , et. all. (July, 2003). Biological Psychiatry, 54 (12).

READING DISORDER OF RECALL/COMPREHENSION

Reading Disorder-Recall/Comprehension

- Some call this “word calling” or “Nonspecific Reading Disability”
- Often confused with hyperlexia
- Frequently found in AD/HD adults
  - They have no problems with:
    - Phonemic Awareness
    - Rapid Automatized Naming
    - Orthographic Processing

BUT!

Reading Disorder- Recall/Comprehension

They cannot remember what they have just read after reading a sentence, paragraph or page.

(Blake, K.T. (May/June, 2000). Two Common Reading Problems Experienced by Many AD/HD Adults. Attention!, 6 (5), pp. 30-33.)

Reading Disorder-Recall/Comprehension

This appears to be a problem with Verbal and Nonverbal Working Memory

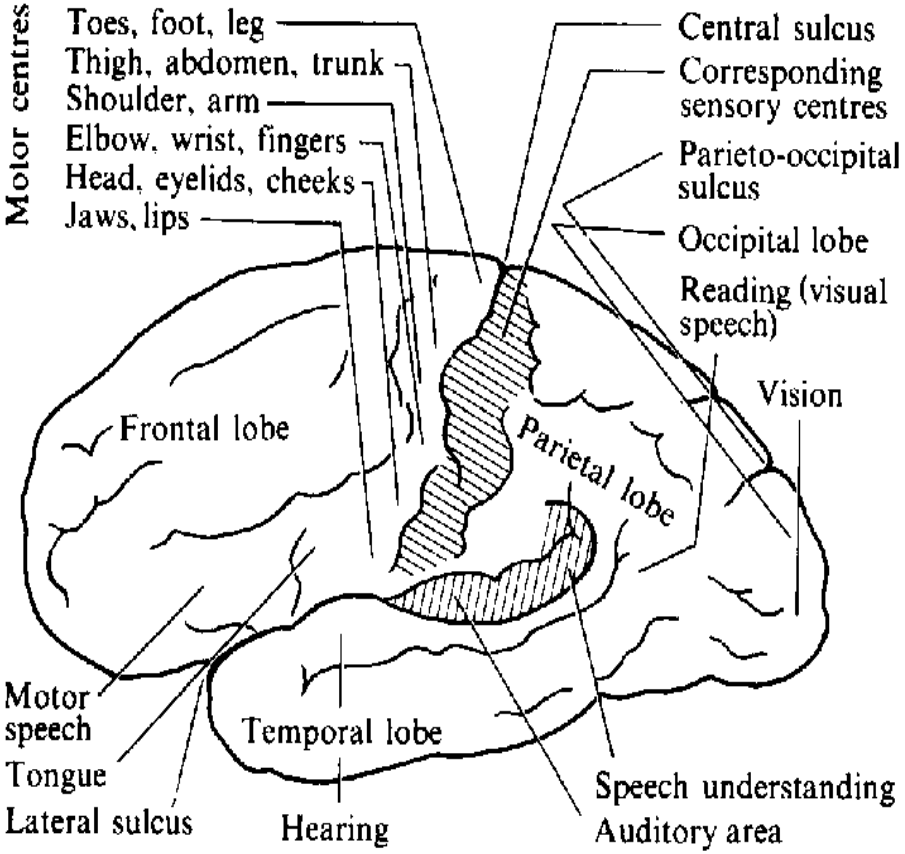
- A function of the Internalized Speech problem of AD/HD; Barkley speaks of this when he explains his theory of AD/HD:
  - Verbal Working Memory=Internalized Speech
  - Nonverbal Working Memory=remembering the spatial location of objects, planning, passage of time

AD/HD adults often have subtle language comprehension problems

(Barkley, R.A. (1998). Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

Reading Disorder- Recall/Comprehension

The Working Memory System is in the Right Frontal Lobe



Reading Disorder-Recall/Comprehension

Diagnosis

- Intellectual assessment (WAIS-III, KIAT, SB5,)
- Thorough reading assessment (WJ-III-ACH, etc,)
- Thorough history
- Sentence and Paragraph Reading Comprehension (Nelson-Denny, SATA, etc.)
- Working Memory Assessment (WMS-III, WJ-III-Cog, etc)
- Listening Comprehension Assessment (TOAL, Oral Lang-WJ, etc.)
- Language Assessment (Speech Language Assessment)

Reading Disorder of Comprehension/Recall

- Stimulant Medication enhances processing including Working Memory.
- It can help with Reading Comprehension problems caused by Working Memory deficits.

Tannock, R., & Brown, T.E. (2000). Attention-Deficit Disorders With Learning Disorders in Children and Adolescents. In T.E. Brown (ed.), Attention –Deficit Disorders and Comorbidities in Children, Adolescents and Adults. Washington, DC: American Psychiatric Press, pp. 231-297.

Reading Disorder-Recall/Comprehension

Treatment

- Medication (Ritalin, Adderal, Strattera, etc.)
- SQ4R (Survey, Question, Read, Write, Recite and Review, etc.)
- Lindamood-Bell Visualizing and Verbalizing For Language Comprehension and Thinking program
- Drawing pictures of what they have read
- If all else fails send them to a speech language pathologist for intensive language comprehension work

Reading Disorder-Recall/Comprehension

- Treat comorbidities (Reading Disorder-Dyslexia, depression, anxiety, AD/HD, etc.)
- Barkley (2002) does not believe that this is a separate disorder from AD/HD; I do.

(Blake, K.T. (May/June, 2000). Two Common Reading Problems Experienced by Many AD/HD Adults. Attention!, 6 (5), pp. 30-33.)

(Bell, N. (1991). Visualizing and Verbalizing Teacher's Manual. San Luis Obispo, CA: Grander Educational Publishing.)

(Barkley, R.A. (October 17, 2002). Mental and Medical Outcomes of AD/HD. 14th Annual CHADD International Conference, Miami Beach, FL.)

Reading Disorder of Oral Reading-Word Finding//AKA "Paralexia"

Reading Disorder of Oral Reading-Word Finding//AKA "Paralexia"

- Some oral reading errors may be related to a word finding problem.
- To read something aloud you must read it twice: once to decode it and comprehend it, and once to articulate it aloud.
- May look like a Double Deficit Dyslexic.
- May have a Oral Phonological Processing problem.

(German, D.J., and Geller, M.A. (Wednesday, February 26, 2003). The Impact of Word-Finding Difficulties on Oral Assessment. 40th Annual Learning Disabilities Association International Conference, Chicago, IL, Session W-17)

Reading Disorder of Oral Reading-Word Finding//AKA "Paralexia"

- Poor readers often have oral word finding difficulties.
- Dyslexics have slow RAN.

(German, D. (3/32003). Students Who Have Word Finding Difficulties. Website: www.wordfinging.com/who.html, pp. 2-3.)

Reading Disorder of Oral Reading- Word Finding//AKA "Paralexia"

Oral Reading Word Finding Errors

- **Slip of the Tongue: Reads "shoe" for "boot"- Semantic Processor**
- **Tip of the Tongue: IDK, but responds with phonemic cue- Between Semantic and Phonemic Processor**
- **Twist of the Tongue: Phonemic approximation read- "octbus for octopus" (slide 7)- Phonological lexicon**
  - **Not an articulation problem- apraxia next step**
  - **Corral reading can help**

(German, D.J., and Geller, M.A. (Wednesday, February 26, 2003). The Impact of Word-Finding Difficulties on Oral Assessment. 40th Annual Learning Disabilities Association International Conference, Chicago, IL, Session W-17)

Reading Disorder of Oral Reading- Word Finding//AKA "Paralexia"

Assessment

- Evaluate RAN: Rapid Alternative Stimulus Naming; Clinical Evaluation of Language Fundamentals (CELF-3); Test of Adolescent and Adult Word Finding (TAWF)(German-Pro Ed); WJ-III, Cog…
- Informal Assessment- Speech Language Pathologist

(German, D. (3/3/2003). Assessment. www.wordfinging.com/tests.html)

Reading Disorder of Oral Reading-Word Finding//AKA "Paralexia"

Interventions

- Retrieval Strategy Instruction
- Self Advocacy
- Classroom/Work Accommodations
- Word Finding Intervention Program (WFIP) (German-Pro Ed)
  - These should be done by a Speech-Language Pathologist

(German, D. (3/3/2003). Intervention. Website: www.wordfinding.com/materials.html)

Reading Disorder of Oral Reading-Word Finding//AKA "Paralexia"

For more Information:

- www.wordfinding.com
- German, D.J. (2000). It's on The Tip of My Tongue, Word Finding Strategies To Remember Names and Words That you Forget. Chicago, IL: Word Finding Materials.

Social Phobia and Oral Reading

Social Phobia and Oral Reading

- A person may have problems with Oral Reading because of Social Phobia.
- Treatments:
  - Cognitive Behavioral Therapy
  - Medication

Reading Disorder - Hyperlexia

Reading Disorder-Hyperlexia

- Spontaneous reading before age 5
- Impaired reading and listening comprehension
- Word recognition far beyond expected for age and IQ
- Often intellectually challenged
- Speech, language, social, motor deficits
- Compulsive reading

(Sparks, R.L. (November 13-16, 2002). Orthographic Awareness Phonemic Awareness,and Working Memory Skill in Hyperlexic Children. 53rd Annual International Dyslexia Association International Conference, Atlanta, GE.)

Reading Disorder-Hyperlexia

- “A precocious ability to read words, far above what would be expected at their chronological age or an intense fascination with letters or numbers.
- Significant difficulty in understanding verbal language
- Abnormal social skills, difficulty in socializing and interacting appropriately with people” (p. 1).

From American Hyperlexia Association website; http://www.hyperlexia.org/, p. 1

Reading Disorder-Hyperlexia

- “Learn expressive language in a peculiar way, echo or memorize the sentence structure without understanding the meaning (echolalia), reverse pronouns
- Rarely initiates conversations
- An intense need to keep routines, difficulty with transitions, ritualistic behavior
- Auditory, olfactory and / or tactile sensitivity
- Self-stimulatory behavior
- specific, unusual fears…”

Reading Disorder-Hyperlexia

- Normal development until 18-24 months, then regression
- strong auditory and visual memory
- Difficulty answering "Wh--" questions, such as "what," "where," "who," and "why"
- Think in concrete and literal terms, difficulty with abstract concepts
- Listen selectively, appear to be deaf" (p. 1)

From American Hyperlexia Association website; http://www.hyperlexia.org/, p. 1

Reading Disorder-Hyperlexia

Often found in people with:

- Nonverbal Learning Disorders
- Asperger's Disorder
- Autism Spectrum Disorders
- Pervasive Developmental Disorders
  - Tend to be weak in concept formation, analysis-synthesis of information, strategy generation, prosody and functional language

(Lorry, B.P. (1998). Language Based Learning Disabilities. In M. Gordon and S. Kieser (Eds.), Accommodations in Higher Education Under the Americans with Disabilities Act (ADA): A No Nonsense Guide for Educators, Administrators and Lawyers. New York, NY: Guilford, pp. 130-153.)

Reading Disorder-Hyperlexia

- Some with Hyperlexia may have fascination with numbers and math.
- Volkmar spoke of a man who solved all WAIS Block Design items using matrix algebra as verbal mediation.
- This man with Asperger's Disorder also tried to make algebraic equations to predict other's feelings.

(Volkmar, F. (April 23, 2003). Asperger Syndrome: Clinical Features, Assessment, and Intervention Guidelines. Seminar Presented by the New England Educational Institute, in Phoenix, AZ.)

Reading Disorder-Hyperlexia

"I used to believe that I was stupid. Attention span was inconsistent, comprehension was weak, I can recall such things as phone numbers without looking in the book, but if you took a book after I read a certain portion and asked me what I read, I could only tell you bits and pieces." – 38 year old Hyperlexic man.

(Miller, S.M. (1996). The Voice of Experience: Reflections and Advise from older Hyperlexics. Newsletter of the American Hyperlexia Association. (From website: www.hyperlexia.org/aha_fall96.html)

Reading Disorder-Hyperlexia

Richman spoke of 2 possible types of Hyperlexia

1. "Hyperlexia Language Disorder"
   - Autistic-like language problems-comprehension problems-may not be caught in elementary school
   - Impulsive and distractible due to language deficit
   - Processing speed problems
   - Treatment-intensive language therapy is recommended

Reading Disorder-Hyperlexia

2. "Hyperlexia Visual-Spatial Disorder
   - More Asperger's-like, may have letter/word reversals, but may have good reading comprehension overall.
   - May not have Social Reading Comprehension.
   - Treatment: Social skills training, and behavior modification; avoid visual teaching.

(Richman, L. (1997). Peaceful Coexistence: Autism, Asperger's, Hyperlexia. In S.M. Miller (Ed.), Hyperlexia Handbook: A Guide to Intervention Strategies and Resources. Elmhurst, IL: American Hyperlexia Association.)

Reading Disorder-Hyperlexia

Klin, et.al. (2000) suggested interdisciplinary assessment and transdisciplinary treatment of those with such disorders is the best approach. This would include neuropsyhological, neurological, psychiatric, psychological, speech and language and occupational therapy assessment and treatment.

(Klin, A., et. al. (2000). Assessment Issues in Children and Adolescents with Asperger's Syndrome. In A. Klin, F.R. Volkmar and S.S. Sparrow (Eds.), Asperger Syndrome. New York, NY: Guilford, pp. 210-228.)

Reading Disorder-Hyperlexia

American Hyperlexia Association

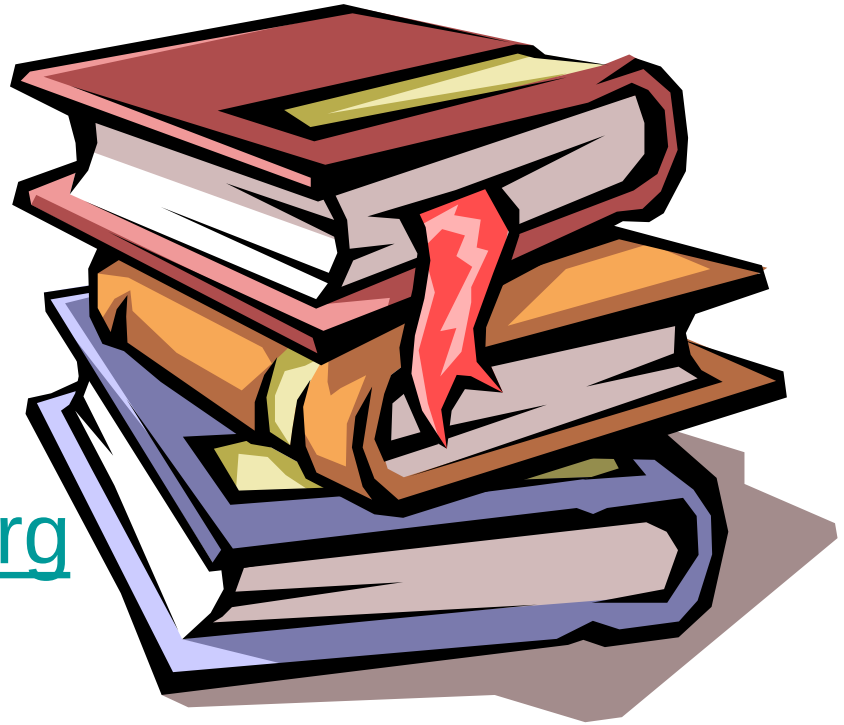
479 Spring Road

Elmhurst, IL 60126

Voice: 630-415-2212

Fax: 630-530-5909

Web: www.hyperlexia.org



READING EPILEPSY

Reading Epilepsy

- “Reading epilepsy is a distinct type of reflex epilepsy in which seizures are precipitated by reading” (p. 1409).
- “These patients with reading epilepsy (RE) give the story that prolonged reading will give rise to their attacks, which usually consists of generalized convulsions preceded by an aura of ‘clicking’ or movement in the jaw. If the patient stops reading when the clicking is first felt, the attack usually passes without leading to generalized convulsion” (p. 75).

(Koutroumonidis, M., et. al. (1998). The Variants of Reading Epilepsy: A Clinical and Video EEG Study of 17 Patients with Reading – Induced Seizures. Brain, 121, 1409-1427.)

(Radhakrishnan, K., e. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

Reading Epilepsy

There appears to be two types of Reading Epilepsy:

1. ***Primary Reading Epilepsy***- Seizures occur only when reading
2. ***Secondary Reading Epilepsy***- Reading is not the only stimulus that precipitates seizures

(Radhakrishnan, K., et. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

(Singh, B., et. al. (1996). Reading—Induced Absence Seizures. Neurology, 45, pp. 623-1624.)

Reading Epilepsy

- One type of Reading Epilepsy may be caused by dysfunction of both hemispheres.
- Another type of Reading Epilepsy may be limited to the left hemisphere.
- It appears highly genetic.
- Exact etiology is not known.
- Multiple brain areas are suspected.

(Pegna, A.J., et. al. (1999). Semantically-Triggered Reading Epilepsy: An Experimental Case Study. Cortex, 35, 101-111.)

(Radhakrishnan, K., et. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

(Koutroumonidis, M., et. al. (1998). The Variants of Reading Epilepsy: A Clinical and Video EEG Study of 17 Patients with Reading – Induced Seizures. Brain, 121, 1409-1427.)

Reading Epilepsy

- The spikes of reading epilepsy may spread from working memory areas into adjacent motor cortex, activating a cortical subcortical circuit.

Archer, J.S., Briellman, R.S., Syngeniotis, A., Abbott, D.F., and Jackson, G.D. (2003). Spike-triggered fMRI in Reading Epilepsy: Involvement of Left Frontal Cortex Working Memory Area. Neurology, 60, 415-421; from American Epilepsy Society Website: http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=321200

How Is It Diagnosed?

- Scalp EEG placement of 21 electrodes in 10-20 placement system
- Includes: photic stimulation, mental arithmetic, oral and silent reading, meaningful/nonmeaningful material, speaking and listening, pattern testing, sleep recordings. Evaluation is videoed to verify seizure.

(Radhakrishnan, K., et. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

(Koutroumonidis, M., et. al. (1998). The Variants of Reading Epilepsy: A Clinical and Video EEG Study of 17 Patients with Reading – Induced Seizures. Brain, 121, 1409-1427.)

What you could expect to find:

"…normal EEG with spikes in bilateral and synchronous pattern appearing on reading…" (p. 76).

(Radhakrishnan, K., et. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

Demographic Data

- Male to Female Ratio – 4 to 2 to 9 to 1
- Median age of onset 15 to 17.5 years
- Range of onset 10 to 25 years
- May lessen in severity with age, or person may avoid reading

(Radhakrishnan, K., et. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

(Koutroumonidis, M., et. al. (1998). The Variants of Reading Epilepsy: A Clinical and Video EEG Study of 17 Patients with Reading – Induced Seizures. Brain, 121, 1409-1427.)

Reading Epilepsy

Treatments

- Anti-epileptic medication therapy- clonazepam (Klonipan), valproic acid (Depakote), carbamazepine (Tegretol)
- Discontinuation of reading
- Behavior therapy and biofeedback

(Radhakrishnan, K., et. al. (1998). Reading Epilepsy: An Appraisal of 20 Patients Diagnosed at the Mayo Clinic, Rodchester, Minnesota, Between 1949 and 1989, and Delineation of the Epileptic Syndrome. Brain, 118, pp. 75-89.)

(Koutroumonidis, M., et. al. (1998). The Variants of Reading Epilepsy: A Clinical and Video EEG Study of 17 Patients with Reading – Induced Seizures. Brain, 121, 1409-1427.)

Reading Epilepsy

- Treatments
  - Avoidance of long periods of reading with disruption of comprehension
  - Recording for the Blind and Dyslexic
  - Text masking for those whose seizures are caused by eye movements
  - Avoidance of sleep deprivation and alcohol

Zifkin, B.G., and Andermann, F. (April 2001). Primary Reading Epilepsy. Date of submission: April 24, 2001; Medline SEARCH DATE: April, 2001; http://www.ilae-epilepsy.org/ctf/primary_read_epilepsy.html

Kevin T. Blake, Ph.D., P.L.C.

Reading Epilepsy

- Control of precipitating factors appears to be as important as medication treatment of this disorder.

Sousa, P.S., Garzon, E., Sakamoto, A.C., Yacubian, E.M. (2004). Reading and Praxis-Induced Myoclonic Seizures In Therapy Resistant Juvenile Myoclonic Epilepsy. Journal of Epilepsy and Cinical Neurophysiology. 10 (4), pp. 219-222; From website http://www.epilepsia.org.br/epi2002/JEp219-222.pdf

Aphasia/Alexia/Acquired Dyslexia

Aphasia/Alexia/Acquired Dyslexia

What Is Aphasia?

It is the loss or impairment in the use of and/or understanding of language as the result of some type of brain injury or dysfunction"(p. 353).

- Can occur secondary to any brain damage.
- Most are in the left hemisphere.
- Causes: stroke, head injury, cerebral tumors, degenerative disease.

(Gaddes, W.H., and Edgell, D. (1994). Learning Disabilities and Brain Function: A Neuropsychological Approach, Third Edition New York, NY: Springer-Verlag.)

(Jacobs, D.H. (08/04/2000). Aphasia. Website: www.emedicine.com/neuro/topic437.htm)

Aphasia

"Patients may lose (and regain) the phonetic production of speech, the ability to hear, or to read words, the ability to comprehend speech…in dozens of nuanced ways and in a variety of permutations" (p. 1).

(Jacobs, D.H. (08/04/2000). Aphasia. Website: www.emedicine.com/neuro/topic437.htm)

Aphasia

Broca's Aphasia:

* Speak haltingly, no intonation
* Problems with spontaneous speech, naming, repeating
* Some are initially mute
* Deep Dyslexia typical, problem in naming actions
* Writing and phonological deficit

(Jacobs, D.H. (08/04/2000). Aphasia. Website: www.emedicine.com/neuro/topic437.htm)

Aphasia

Wernicke's Aphasia:

* Impaired repetition, more fluent than Broca's Aphasia
* Speech is empty-Jargon Speech
* Problems with comprehension
* May have preserved reading

(Jacobs, D.H. (08/04/2000). Aphasia. Website: www.emedicine.com/neuro/topic437.htm)

Alexia

Gardner (1974) wrote that Alexia is "…an acquired reading disability as the result of a brain injury," and Developmental Dyslexia is a, "reading difficulty that emerges early in life" (p. 119).

(Gardner, H. (1974). The Shattered Mind. New York, NY: Vintage.)

Alexia

"Patient's with pure alexia have normal language except for deficient reading skills. They cannot read even what they themselves have written, and they are unable to write. They have no difficulty spelling aloud, no memory problems and can recognize words spelled on their palm…Patients are usually anomic, because, oxymoronically, the deficit is rarely 'pure'. It typically involves other cortex irrigated by the posterior cerebral artery (since most cases are due to stroke) and these include…

Alexia

…the posterior thalamus and the underface of the temporal lobe and the medial occipital lobe. The lesion occurs in the occipital cortex and typically is due to embolus to the posterior artery…Patients cannot read because they cannot recognize the words. Letter reading is preserved, and patients may spell aloud, hear the oral form of the word, and be able to say and understand it" (p. 8).

(Jacobs, D.H. (08/04/2000). Aphasia. Website: www.emedicine.com/neuro/topic437.htm)

Acquired Dyslexia

Deep Dyslexia:

"The patient with deep dyslexia is an adult who, after acquiring reading skills, suffers traumatic damage to the language-dominant hemisphere,and manifests semantic errors while reading aloud…deviational errors…visual errors…misreading functional words…and the inability to read nonwords." (p. 352).

(Gaddes, W.H., and Edgell, D. (1994). Learning Disabilities and Brain Function: A Neuropsychological Approach, Third Edition New York, NY: Springer-Verlag.)

Surface Dyslexia

- Symptoms may be acquired through injury
- Symptoms may be genetic
- Both have the symptomatology of Developmental Dyslexia
  - Another reason why a good history is important!

(Gaddes, W.H., and Edgell, D. (1994). Learning Disabilities and Brain Function: A Neuropsychological Approach, Third Edition New York, NY: Springer-Verlag.)

Assessment

- Multidisciplinary assessment team:
  - Neurologist/behavioral neurologist, neuropsychologist, speech language pathologist, general practice physician, neurosurgeons, cardiologists, cancer specialists, occupational therapists, clinical/counseling psychologists, social workers, psychiatrists, etc.

Treatments

- No Cure!
- Surgeons can remove tumor or hematoma
- Speech therapy can retrain and/or teach compensation
- Computer programs REHABIT
- Medications
- Work with loved ones

(Aphasia Fact Sheet (June 22, 2000). www.aphasia.org/naafactsheet.html)

(Albert, M.L., et. al. (2000). Aphasia Research—Annual Update. National Aphasia Association Newsletter, 12(1), pp. 1-3; website:www.aphasia.org/newsletter/121/aphasiatherapy.html)

Aphasia/Alexia/Acquired Dyslexia

- Head injured can have more problems regaining reading because of memory, mood, medical problems, etc. caused by the brain damage.
- Multisensory techniques like Fernald can help, but progress is exceptionally slow.

(Stegelman, T.R. (8/21/2000). Personal Communication)

(Anderson, C.W. (8/26/2000). Personal Communication)

Aphasia/Alexia/Acquired Dyslexia

National Aphasia Association

156 Fifth Avenue, Suite 707

New York, NY 10010

Voice: 800-922-4622

Web: www.aphasia.org

LINGUISTIC CODING DIFFERENCE

Linguistic Coding Difference

Sparks spoke of two types of students with difficulty with foreign language:

- Those with no phonological problems, but problems with listening comprehension, and oral expression.
- Those with phonological processing problems and listening comprehension, oral expression vocabulary, and general linguistic awareness problems.

(Sparks, R.L. (1995). Examining the Linguistic Coding Differences Hypothesis to explain Individual Differences in Foreign Language Learning. Annals of Dyslexia, 45, pp. 187-214.

Linguistic Coding Difference

In addition to phonological problems poor foreign language learners tend to have weaknesses in spelling, word identification, and grammar. Memory problems may also cause problems with foreign language learning.

(Sparks, R.L., Ganschow, L., and Javorsky, J. (1992). Diagnosing and Accommodating the Foreign Language Learning Difficulties of College Students with Learning Disabilities. Learning Disabilities Research & Practice, 7, pp. 150-160.

Linguistic Coding Difference

- Foreign Language anxiety is the result of Linguistic Coding Difference not the cause!

(Sparks, R.L., Ganschow, L., and Javorsky, J. (1992). Diagnosing and Accommodating the Foreign Language Learning Difficulties of College Students with Learning Disabilities. Learning Disabilities Research & Practice, 7, pp. 150-160.

Linguistic Coding Difference

How to Diagnose LCD

Sparks, Ganschow and Javorsky (1992) suggested:

- review of the student's developmental history;
- review of the student's elementary and secondary learning history and academic records;
- review of the student's foreign language history and;

Linguistic Coding Difference

- An in-depth personal interview with the student is necessary to obtain background information before standardized testing" (p. 153).
- Administration of specific standardized tests.

(Sparks, R.L., Ganschow, L., and Javorsky, J. (1992). Diagnosing and Accommodating the Foreign Language Learning Difficulties of College Students with Learning Disabilities. Learning Disabilities Research & Practice, 7, pp. 150-160.

Linguistic Coding Difference

Sparks, Phillips and Ganschow (1996), suggest the following types of standardized test instruments as part of this assessment: " IQ, foreign language aptitude, reading, spelling, written language, oral language" (pp. 34 and 35).

(Sparks, R., Phillips, L., and Ganschow, L. (1996). Students Classified as Learning Disabled and the College Foreign Language Requirement. In J. Liskin-Gasparro (Ed.), The Changing Demographics of Foreign Language Instruction. Boston, MA: Heinle and Heinle.)

Linguistic Coding Difference

Suggested Standardized Tests

Peabody Picture Vocabulary Test-Revised

- Test of Adolescent and Adult Language-3
- Test of Language Competence-Expanded Edition
- WAIS-III
- WJ-III
- Test of Written Language (TOWL)
- Wide Range Achievement Test-3 (Spelling subtest)

Linguistic Coding Difference

- Modern Language Aptitude Test (MLAT)
- Pimsleur Language Aptitude Battery
- Defense Language Aptitude Battery

(Adapted from: Sparks, R., Phillips, L. and Ganschow, L. (1996). Students Classified as Learning Disabled and the College Foreign Language Requirement. In J.Liskin-Gasparro (Ed.), The Changing Demographics of Foreign Language Instruction. Boston,MA: Heinle and Heinle.)

Kevin T. Blake, Ph.D., P.L.C.

Linguistic Coding Difference and The Question of Substitution

- Just because someone is LD does not indicate they need a foreign language course substitution.

- Those who had no difficulty with mother tongue should not be considered for substitution
- "…many students classified as LD had passed high school FL courses with average or above-average grades" (p. 346).
- Disability Services staff should help students map out a successful strategy for the student to take foreign language courses.

Linguistic Coding Difference and Substitutions

- Students should be made to use all available accommodations before substitutions are made.
- Postsecondary institutions should make specific guidelines for foreign language substitutions.

(Sparks, R.L., and Javorsky, J. (July/August, 1999). Students Classified as LD and the College Foreign Language Requirement: Replication and Comparison Studies. Journal of Learning Disabilities, 32 (4), pp. 329-349.)

Linguistic Coding Difference/ADHD

- Just because a student has AD/HD does not mean they have LCD.
- AD/HD students usually pass foreign language courses with A, B, or C grades
- Accommodations for AD/HD without LCD: sometimes extended time and non-distracting environment.
- Some do have AD/HD and LCD.

(Javorsky, J., and Sparks, R. (November 16, 2002). Diagnostic and Foreign Language Achievement Profiles of College Students with AD/HD: An Examination of Test Files from 1996-2001. Paper Presented at the 53rd Annual International Dyslexia Conference, Atlanta, GE.)

LCD/Substitutions

- Most postsecondary institutions offer course substitutions for Foreign Language courses.
- This is a contentious issue (Academic Integrity vs. Substitution, etc.).
- As accommodations for LD students become better developed and available for Foreign Language courses fewer substitutions will be granted.
- OCR recommended “well-tailored accommodations” (p. 322) that require coordination between faculty and LD services.

(Brinkerhoff, L, McGuire, J.M., Shaw, S.F. (2002). Postsecondary Education and Transition for Students with Learning Disabilities. Austin, TX: Pro-Ed.)

Linguistic Coding Difference

"…There is ample evidence to show that some students cannot successfully complete several semesters of language study, even with a specifically modified program. There is also ample educational justification for allowing individual students to pursue the goals of a liberal education in many different ways" (p. 327).

(Shaw, R.A. (July/August, 1999). The Case for Course Substitutions as a Reasonable Accommodation for Students with Foreign Language Learning Difficulties. Journal of Learning Disabilities. 32 (4), 320-349.)

Linguistic Coding Difference

Possible Accommodations

- Synthetic Multi-Sensory Phonics instruction in the foreign language
- Take a written rather than a spoken language
- Intense tutoring
- Reduced overall load while taking this course
- Ideographic languages (i.e., Chinese, etc.)
- American Sign Language
- Immersion

(Shaw, R.A. (July/August, 1999). The Case for Course Substitutions as a Reasonable Accommodation for Students with Foreign Language Learning Difficulties. Journal of Learning Disabilities. 32 (4), 320-349.)

Linguistic Coding Difference

WARNING!

In rare cases students exposed to foreign languages will start to “forget” their mother tongue. In these cases students should be offered a substitution, if academically appropriate.

(Dinklage, K.T. (1971). Inability to Learn a Foreign Language. In G.,Blaine and C. McAurther (Eds.), Emotional Problems of the Student. New York, NY: Appleton-Century-Crofts, pp. 185-206.)

Duane, D. (1993). Developmental Disorders of Learning, Attention and Affect. Videotape prepared by the Institute for Developmental Behavioral Neurology, 10210 North 92nd Street, Suite #300, Scottsdale, AZ 85258.)

Linguistic Coding Difference

- Excellent Reference:

Schneider, E., and Crombie, M. (2003). Dyslexia and Foreign Language Learning. London, Great Britton: David Fulton.

Music and Dyslexia

Music and Dyslexia

- Often written music causes problems for dyslexics.
- Just as dyslexics have trouble with sound-symbol associations they can have the same difficulty with the note-musical sound connection.
- RAN can cause problems with rapid recall of music facts and names.
- They often can have problems reading words and notes simultaneously.

Brand, V. (Winter, 2000, Music and Dyslexia. Perspectives, 26 (1) pp 36-37.

Depression/Anxiety Caused Reading Problems

Depression/Anxiety Caused Reading Problems

"It is easy to imagine how an ADHD and/or primary depressive problem can result in reading problems but not an actual phonologically based reading disability…What is not always so simple to recognize and understand are the many potential signs of ADHD and/or depression…It is clear that many children who seem to evidence ADHD and/or depression also show reading and spelling/written language problems" (p. 169).

(Cohen, J. (1994). On the Differential Diagnosis of Reading, Attentional and Depressive Disorders. Annals of Dyslexia, 44, Baltimore, MD: Orton Dyslexia Society, pp. 165-184.)

Depression/Anxiety Caused Reading Problems

- "Depression regardless of the cause –can interfere with concentration, memory, thinking, learning, and social interactions in myriad complicating ways" (p. 169)
- "Depression is often accompanied by lower Performance IQ…perhaps because of psychomotor retardation, anxiety, or low motivation" (p. 290).
- "Distractibility and difficulty concentrating can be symptoms of anxiety" (p. 334).

(Cohen, J. (1994). On the Differential Diagnosis of Reading, Attentional and Depressive Disorders. Annals of Dyslexia, 44, Baltimore, MD: Orton Dyslexia Society, pp. 165-184.)
(Kaufman, A.S. (1990). Assessing Adolescent and Adult Intelligence. Boston, MA: Allyn and Bacon.)
(Barkley, R.A. (1998). Attention-Deficit Hyperactivity Disorder, Second Edition. New York, NY: Guilford.)

Depression/Anxiety Caused Reading Problems

Sometimes a person may become a slow reader and/or have poor comprehension because of depression and/or anxiety. Often the reading problem will disappear if the emotional problem is treated. This treatment includes psychological counseling and possibly psychotropic medication.

Kevin T. Blake, Ph.D., P.L.C.

Reading Disorder-Orthographic Dyslexia; Reversals and Rotations

Reading Disorder-Orthographic Dyslexia; Reversals and Rotations

- Only about 7% of adults with Reading Disorder-Dyslexia experience Reversals and Rotations
- Most children have problems with rotations and reversals until the end of 4th grade.
  - A rotation is processing “b” as “p”; “d” as “q”, etc.
  - A rotation is processing “was” as “saw”, etc.

Anderson, C.W., Jr. (January 23, 2006). Personal Communication.

Reading Disorder-Orthographic Dyslexia; Reversals and Rotations

- "At 8 to 10 years of age, reading progress of some children continues to be hampered by a problem in orthographic memory for the orientation of letters and numbers" (p. 28).
- Most non-disabled children have "outgrown" these difficulties by 8 years old.
- These children often have comorbid problems with Rapid Automatized Naming (RAN) and Phonemic Awareness.

Badian, N. A. (2005). Does a Visual-Orthographic Deficit Contribute to Reading Disability? Annals of Dyslexia, 55 (1), pp. 28-52.

Reading Disorder-Orthographic Dyslexia; Reversals and Rotations

- This may be due to dysfunction in the Magnocelluar cells of the LGN.
  - There may be a connection between poor visual motion sensitivity and the tendency to rotate and reverse letters.

Badian, N. A. (2005). Does a Visual-Orthographic Deficit Contribute to Reading Disability? Annals of Dyslexia, 55 (1), pp. 28-52.

Reading Disorder-Orthographic Dyslexia; Reversals and Rotations

- Treatment:
  - Training reading skills with synthetic multisensory phonics techniques like the Orton-Gillingham.
  - Often these children will have long term difficulties spelling and reading sight or “dolch” and/or phonemically irregular words due to their continued problems with visual othographic memory.

Anderson, C.W., Jr. (January 23, 2006). Personal Communication

Badian, N. A. (2005). Does a Visual-Orthographic Deficit Contribute to Reading Disability? Annals of Dyslexia, 55 (1), pp. 28-52.