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Assessment and treatment of school-age dual language learners with language disorders

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Course learning objectives

- Describe common language development patterns for school-age dual-language learners who have a language disorder
- List evidence-based options for assessing language skills in school-age dual-language learners
- Describe the rationale for dual language support in children learning two languages
- Identify possible means for achieving dual language support in children learning two languages

Background & Terminology

Influences on language development in school-aged dual-language learners with language disorders

Some terminology

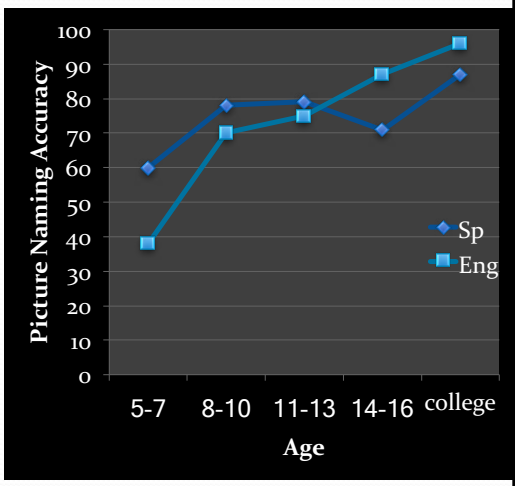
- Bilingual
  - *Simultaneous* vs. *sequential*
  - *Dominant vs. balanced*
- English Language Learner/ELL (ESL, LEP)
- Terms focus on proficiency
  - Where does language proficiency come from?

Focus today

- *Dual-language learners* = children who have systematic exposure to and/or need for two (or more) languages
- *School-age children* = ~5-6 years +
  - Faced with mastering academic content
- Typical scenario in US:
  - Parents speak minority (non-English) language
  - Child receives systematic exposure to English when schooling begins
  - Older siblings, media, broader community provide additional English input

Patterns for typical DLLs

- Typical result of input patterns:
  - shift to English dominance during the elementary school years (e.g., Kohnert, Bates, & Hernandez, 1999; see graph at right)
  - Remember "dominance" depends on specific task/skill
- Maintaining good home language skills has important social & psychological benefits



What about language disorders?

Possible terms…

- Language impairment
- Language disorder
- Language disability
- Developmental language disorder
- Specific language impairment (SLI)
- Primary Language Impairment (PLI)
- Expressive language disorder
- Mixed receptive-exp. language disorder
- Language-based learning disability
- Speech/language impairment (IDEA)
- Childhood (congenital) aphasia
- Dysphasia
- Language delay
- Language deviance

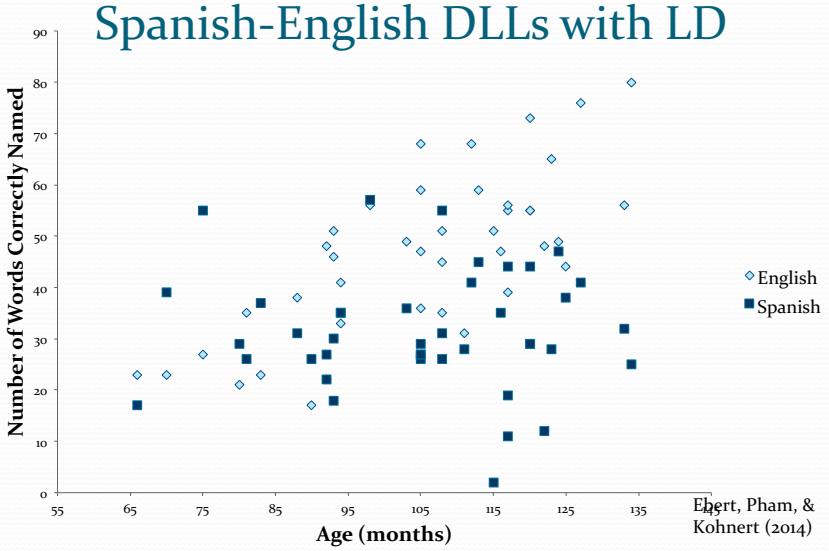
TODAY: "Language Disorder" (LD)

Characteristics: delays in language skills (grammar, vocabulary); risk for reading disorder & academic struggle; possible weakness in memory, attention

Patterns for DLLs with LD

- Variability! No one characteristic describes all
- Will show deficits in <u>two languages</u>
  - Compared to peers with similar backgrounds
- DO show a shift to English dominance
  - May show slow to no growth in home language in school years, depending on input & opportunities in that language (see Ebert, Pham, & Kohnert, 2014)
- LOTS of work yet to be done

Expressive Vocabulary in School-Aged Spanish-English DLLs with LD



Ebert, Pham, & Kohnert (2014)

How can we compare apples to apples?

Less-biased & evidence-based assessment

Guiding principles of assessment

- Do not use test norms when the child doesn't match the normative sample
  - Culture is a relevant variable
- Collect information on both languages
- Consider patterns of language use in analyzing assessment data
- Use multiple sources of information and look for patterns

Possible Components of Less Biased Assessment

1. Parent and teacher interview
2. Observation
3. Norm referenced test appropriate to the population
4. Language sampling
5. Processing-dependent measures
6. Dynamic assessment

(1) Parent & teacher interview

- Parent report is a validated means of identifying LD in DLLs (Restrepo, 1998; Paradis et al., 2010)
  - Parents may remember early milestones (when the child was learning only ONE language!)
  - Parents may be one of your only sources of information on the home language
  - Teachers may have experience watching many children from similar backgrounds (apples to apples)
- One existing tool: Alberta Language and Development Questionnaire (Paradis et al., 2010)

(2) Observation

- What contexts?
  - Ideally: multiple, meaningful contexts, with different communication partners
- What are you looking for?
  - Communicative breakdowns; comparison with peers; relevant behaviors
- Recommended as a crucial component of DLL assessment (DeLamo White & Jin, 2011)
  - Drawbacks: unstructured; hard to assess home language without proficiency; time

(3) Appropriate NR Test

- Some tests for Spanish-English bilinguals have been developed
  - Normative samples still vary & need to match your client
- Not much for other languages
- You can administer a test that doesn't have an appropriate norm sample OR a translated test
  - Don't use the norms!
  - Cost-benefit analysis: what information will I get out of giving this test?

(4) Language Samples

- Language samples may be a good choice for less-biased assessment (Restrepo, 1998)
  - Ecologically valid; provide starting point for intervention
  - Some comparisons available for DLLs
- Choices for collecting:

Conversation	Narration:	Expository:
	• Personal story • Wordless picture book • Retell familiar story	• Explain favorite game or sport • Summarize informational video or passage

(5) Processing-dependent measures

- Premise: ↑ processing demands, ↓ role of language knowledge/experience
- Examples:
  - Nonword repetition
  - digit span
  - matching tone patterns
  - memory for words while processing other information

(5) Processing-dependent measures: NWR

- NWR tasks are best established:
  - Have been developed in many languages
  - **DO** help differentiate bilingual children with LD from peers
    - Turkish-Dutch (Verhoeven et al., 2012);
    - English-French (Thordardottir & Brandeker, 2013);
    - Spanish-English (Windsor et al., 2012)
  - may help differentiate children with LD when only L2 (English) is considered (Paradis et al., 2013)

(5) Processing-dependent measures

- BUT experience still matters!
  - Amount of exposure to a language influences NWR performance *less* than performance on a vocabulary test, but it still influences NWR performance
- Tasks provide little information for intervention planning
- Poor performance may be associated with other disorders too (e.g. NWR & dyslexia)
- Bottom Line: may contribute to identification of LD in combination with other assessment info

(6) Dynamic Assessment

- Premise of DA: Consider *rate of learning* and *amount of support needed to learn* as indicators of LD
- Variations:
  - Test, teach, re-test
  - Modifiability ratings
  - Alter standardized test administration (give feedback, explain answers)

(6) Dynamic Assessment

- Growing evidence supports Dynamic Assessment with school-aged DLLs. For example:
  - When given models & instruction on how to tell a good story, TD DLLs respond better than those with LD (Peña et al., 2014)
  - Clinician ratings of *modifiability* separated the children with LD

Advantages	Disadvantages
• Naturalistic • Can combine language, motivation, & cognition • Relevant to what you really want to know: how does this child learn language?	• Subjective • Must develop expertise to make judgments • Time

Assessment: A Case Example

- Meet R:
  - Aged 5;11
  - Parents are fluent speakers of Brazilian Portuguese & English
  - Portuguese input for R: Mom, incidental communication in home between parents
  - English input for R: Dad, older siblings, junior kindergarten program
  - Older sibling with positive history of language impairment

Referral

Sept
- R failed school screening

Dec
- Completed speech-language evaluation (see next slide)
- Speech-language treatment services recommended

March
- Mom called to request 2nd opinion
- Concerned services not necessary

April
- Completed evaluation with me

R's first evaluation

- Completed CELF-4 only (components 1-6 missing!)
- Scores reported based on monolingual norms:

Subtest	Score	Subtest	Score	Subtest	Score
Sentence Structure	5	Concepts & Following Directions	5	Word Classes-Expressive	10
Word Structure	7	Recalling Sentences	5	Word Classes-Total	12
Expressive Vocabulary	13	Word Classes-Receptive	14	Formulated Sentences	8

- DX: receptive-expressive language impairment
- TX: activities to target language memory & concept comprehension

My Evaluation Plan

- Assess Portuguese skills via interpreter
  - Receptive language (comprehension of sentences; e.g., Sentence Structure, CELF)
  - NWR (Santos & Bueno, 2003)
  - Digit span
- Language samples
- Parent interview (ALDeQ, Paradis et al., 2010)

What really happened

- Interpreter did not show up!
- Direct assessment of Portuguese impossible.

Assessment	**Result**
ALdeQ	Score =.68; above suggested cut of .66; most risk deriving from family history and activity preference s
English NWR	% phonemes correct = 87.5%; within expectations for older children (Dollaghan & Campbell, 1998)
English language sample	MLU, NDW, WPM all 1.0-1.7 SDs above the mean for DLLs using SALT databases (Miller & Iglesias, 2012)
PLS-5 AC	Raw score of 55 with no ceiling obtained → would score at least 91 vs. monolingual norms
Observations	Impulsive, easily distracted, frequent off-topic comments

Conclusions

- R does not demonstrate LD
- Possible weakness in attention
- Recommend continuing OT services & considering evaluation of attention if concerns persist

- What if R had not performed well on English tests in this situation?

Treatment

How can we achieve dual-language support?

Why treat two languages?

- Social need: families speak home language
  - Connection to family & community essential to child development
- Existing treatment studies show little gain in home language when treatment is only in English
- Transfer of learning from home language to English is more viable
- No evidence that children with LD can't learn 2 languages

How to treat two languages?

- Assuming little to no SLP proficiency in home language.
- Strategies:
  1. Train a helper who does speak the home language
  2. Focus on skills that transfer
  3. Compare & contrast

(1) Train a helper

- Who might speak the home language?
  - Parent
  - Paraprofessional
  - Sibling or other peer
  - Community partner
- What can they do?
  - Model specific language skills (vocabulary, grammatical structures)
  - Provide quality input in home language
  - Give child feedback on productions
  - Assist with compare & contrast

(2) Focus on skills that transfer

- "Meta" skills may transfer more easily across languages
  - E.g., emergent literacy, phonological awareness, understanding of multiple meaning words
- Improving cognitive underpinnings of language may improve skills in both languages (Ebert, Kohnert, et al., 2014)
  - E.g., Memory, attention, processing speed

(3) Compare & contrast

- Elements **shared** between languages are good targets:
  - Easier with some language pairs than others
  - Cognates (words that share form & meaning across languages; see Kelley & Kohnert 2012) are a good example:
    - Elephant/*elefante;* ambulance/*ambulancia*
- Children may benefit from explicit contrast of differences between languages
  - Directly teach a language structure, then discuss how you express the same thing in another language

Treatment: A Case Study

- Meet J:
  - Aged 7;10, 2nd grade
  - Home Spanish speaker
    - Parents most comfortable in Spanish
    - Older brother uses both English and Spanish
    - Extended family uses only Spanish
  - School instruction in English
    - Most peer interactions in English
- History of slower Spanish acquisition than brother
  - Mother reports concerns in preschool
- Currently performs poorly in school
  - Off-task behavior
  - Minimal participation
  - Poor quality assignments

J's Profile & Goals

English

Test	Raw	Std*
Exp Vocab	48	71
Rec Vocab	64	82
MLU	6.27	--
CELF CFD	15	2
CELF RS	13	1
CELF FS	9	1

Spanish

Test	Raw	Std
Exp Vocab	27	<55
Rec Vocab	44	63
MLU	5.63	--
CELF CFD	12	3
CELF RS	12	5
CELF FS	7	4

Priority goal areas: improved comprehension of instructions; increased sentence length; deeper vocabulary knowledge /identification of semantic relationships

Using treatment strategies

- Focus on skills that transfer
  - Target meta-comprehension skills in conjunction with direct practice in improving comprehension of instructions
    - Ask J to judge whether he understands before completing a direction
    - Teach J to request repetition when needed
  - Incorporate work on cognitive underpinnings
    - E.g., speeded games for warmup
    - Home memory activities

Using Treatment Strategies

- Compare & contrast, skills that transfer:
  - Use visual supports like graphic organizers to discuss semantic relationships
  - Include both Spanish & English word forms if possible
  - Explicitly point out similarities & differences across the languages
- Train a helper:
  - Teach mother how to use conversational recasting to expand utterance length at home
  - Provide education on home Spanish language use

Summary

- DLLs with LD are varied
  - Common input patterns result in a shift towards English dominance & possible plateau in home language
  - But home language remains an important foundation
- A good assessment will:
  - combine multiple sources of information
  - limit comparisons to children with dissimilar experiences
  - obtain some information about both languages

Summary

- Treatment should support **both** languages
  - "support" does not have to mean treating the same skills directly in two different languages
  - Strategic choice of targets, use of helpers, and explicit language comparisons can all be helpful
- Providing quality services for this population can be a challenge…but it is one we can meet

Questions?

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