Difference vs. Disorder: Speech and Language Development in Culturally and Linguistically Diverse Populations
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ECI Bilingual Series
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Outline for Today

• Typical Speech Development in Bilinguals
• Bilingualism and Language
• Typical Language Development in Bilinguals
  ▪ Form
    • Syntax
    • Morphology
  ▪ Content
• Application to All Languages
• Case Studies

Learner Objectives

• Participants will:
  ▫ List similarities in typical monolingual and bilingual speech and language development.
  ▫ Identify similarities and differences in typical monolingual and bilingual language development.
  ▫ Differentiate developmental errors, cross-linguistic errors, and atypical errors.
  ▫ List language structures that are subject to second language influence in second language learners.
  ▫ Identify facts and myths about bilingualism.

Texas ECI Demographics

Percent

- Hispanic/Latino
- White
- Black/African American
- Asian/Pacific Islander
- American Indian/Alaskan

BILINGUISTICS
Building Clinical Judgment

How do we qualify and work with a bilingual population when:

- The tests we use are not normed on this population.
- My gut feeling doesn’t match the test results.
- I don’t know what goals are appropriate.

Speech and Language Outcomes

Difference vs. Disorder

Typical Development in Bilinguals - Speech

The influence of a second language on the acquisition of sounds
Audio

- Developmental Errors
- Spanish influenced errors
- Errors that suggest impairment

Let's take a walk

- Speech and language development from:
  - 0-36 months
  - 36 months forward
- With:
  - Spanish
  - English
  - Crosslinguistic Influence

Typical Development in Bilinguals

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
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<tbody>
<tr>
<td>Positive transfer</td>
<td>Negative transfer</td>
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Building blocks for speech

- 0-1 month – crying and vegetative sounds
- 1-6 months – cooing, laughter, squealing, growling
- 4-6 months – marginal babbling
- 6-8 months – reduplicated babbling
- 8-10 months – variegated babbling
- 8-12 months – echolalia*
- 9-12 months – phonetically* consistent forms
- 9-12 months – jargon*
Speech Intelligibility

- For parents: (Lynch, Brookshire & Fox, 1980)
  - 18 months - ~25% intelligible
  - 2 year olds - 50-75% intelligible
  - 3 year olds - 75%-100% intelligible
- For unfamiliar: (Flipsen, 2006)
  - 18 months - ~25% intelligible
  - 2 year olds - ~50% intelligible
  - 3 year olds - ~75% intelligible
  - 4 year olds - 100% intelligible

Red Flags For Speech Impairment in Bilinguals

- Difficulty producing sounds in both languages, even with adult assistance
- Family history of speech-language impairment
- Slower development than siblings
- Difficulty interacting with peers
- Difficulty with speech production in many routines and settings
- Speech production unlike others with similar cultural/linguistic experiences

Bilingualism & Articulation

The differences and shared characteristics of two sound systems

Spanish & English Phonemes

<table>
<thead>
<tr>
<th>Spanish</th>
<th>English</th>
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</tbody>
</table>
Consonant Difference Activity

BATH

BAT

Consonant Difference Activity

SHOE

CHEW

Vowel Inventory

SPANISH

/ə/ /e/ /i/ /o/ /u/

ENGLISH

/æ/ /ɛ/ /ʌ/ /o/ /u/

HAT

HOT
The influence of a second language on the acquisition of language structures

Children code switch between languages because they don’t know either language well.
Language Activity

**FACT**

Raising children with two languages will confound them.

**MYTH**

Children with language impairment should not learn more than one language at a time.

Building blocks for Language

- 0-1 month – crying and vegetative sounds
- 2-3 months – eye gaze
- 6-9 months – joint attention
- 9-12 months – using gestures
- 12-15 months – following simple commands
- 18 months – symbolic play, pretend play
- 24 months – sequencing of activities
- 36 months – episodic play

Cross-linguistic Influence

- Based on the Competition Model as applied to bilingual development (MacWhinney & Bates, 1989)
  - Forward Transfer (L1 to L2) expected for ELLs
- The effects of Spanish on English can result in errors in:
  - Verb errors (especially unmarked present for past tense)
  - Content word errors (more than general words)
  - Prepositions
  - Pronouns
  - Word order
**Early Lexical Development in Bilinguals**

- Bilingual children develop early vocabulary at the same rate as monolingual children (Pearson, 1993).
- Early language milestones are similar (single words, lexical spurt, 2-word phrases) (Pearson and Fernandez, 2001).
- Conceptual scores are similar (Pearson, 1998).

**Cumulative not Comparative**

Language and Content of Intervention

- Select based on what is appropriate in each language and what is appropriate for child’s and family’s situation.
- For example:

\[
\begin{array}{c|c}
\text{Spanish} & \text{English} \\
\hline
\text{Gender} & \text{Gender} \\
\text{Verbs} & \text{Verbs} \\
\text{Article+nouns} & \text{Article+nouns} \\
\text{Food} & \text{Food} \\
\text{Clothing} & \text{Clothing} \\
\text{Household items} & \text{Household items} \\
\hline
\text{Both} & \text{Both} \\
\text{People} & \text{People} \\
\text{Functions} & \text{Functions} \\
\text{Categorization} & \text{Categorization} \\
\text{Part-Whole} & \text{Part-Whole} \\
\end{array}
\]

Peña & Kester, 2004

**Dual language learning: Vocabulary**

- For bilingual toddlers 30% of vocabulary are translation equivalents
- Young school-age bilinguals produce same # of category items in Spanish and English BUT 70% are unique to one language
- Task performance varies by language

\[1\] Pearson, Fernandez & Oller, 1995
\[2\] Peña, Bedore & Zlatic, 2002
\[3\] Peña, Bedore, & Rappazzo, 2003

**Linguistic Element**

<table>
<thead>
<tr>
<th>Spanish Syntax</th>
<th>English Syntax</th>
<th>Examples of SIE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentences</td>
<td>Rigid Word Order</td>
<td>Flexible Word Order</td>
</tr>
<tr>
<td>Modifiers</td>
<td>Noun + Adjective</td>
<td>Adjective + Noun</td>
</tr>
<tr>
<td>Questions</td>
<td>No auxiliary</td>
<td>Auxiliary</td>
</tr>
<tr>
<td>Pronouns</td>
<td>Pronoun dropping</td>
<td>Maintenance of pronouns</td>
</tr>
<tr>
<td>Negation</td>
<td>Double</td>
<td>Single</td>
</tr>
<tr>
<td>Plurals</td>
<td>Nouns &amp; Adjectives marked</td>
<td>Only nouns marked</td>
</tr>
<tr>
<td>Prepositions</td>
<td>Verb-framed</td>
<td>Satellite-framed</td>
</tr>
<tr>
<td>Multi-purpose verbs</td>
<td>Often no Direct Translation</td>
<td>Often no Direct Translation</td>
</tr>
<tr>
<td>Verb system</td>
<td>Complex (3rd person unmarked, 5-6 person forms/verb)</td>
<td>Simple (3rd person marked, 2 person forms/verb)</td>
</tr>
</tbody>
</table>
Intervening with other languages of the world

Other Common Languages

• “difference between ___________ and English Language”

Other Language Phonemes

Vowel Inventory
Other Language Phonemes

Portuguese vs. English

- Grammar - Verb/Tense: Portuguese leads to such errors as...
  - Tense choice is a significant problem for...
- Grammar - Other: Portuguese word order is...
- Vocabulary: Because of shared Latin roots...

Russian vs. English

- Grammar - Verb/Tense: Russian and English convey meaning through...
- learners often omit the auxiliary in questions or negatives: How you do that?
  - Tense choice is a significant problem for Russians learning English...
- Grammar - Other: Russian has no articles...

Speech Summary

So what do we know?

- Building blocks are the same for both monolinguals and bilinguals, and across languages
- General guidelines for intelligibility are the same
- Expect some cross-linguistic influence in speech production where the two languages differ
- Use therapy materials that provide speech sounds that are appropriate for the child’s age and language
Thank you!