Bilingual Spanish-English Speakers and L2 (English) Accent, Verb Production, & CALP

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Bilingual Speakers: Not Two Monolinguals in One

- Specific Bilingual Language Skills
  - In L2 (English)
    - Apparently impacted by age of acquisition
    - Apparently impacted by amount of use
    - Apparently impacted by first language proficiency
  - In L1
    - May be impacted by age at which L2 is introduced: attrition $\rightarrow$ decreased “talking time”
What measuring stick?

- Comparisons to the language products of monolinguals:
  - “Native-like”
    - Realistic?
    - Fair?
Predicting a Profile

- Defining Expectations
  - L1
  - L2

- Creating New Standards
  - Different measuring sticks?

- Creating New Tools for the field of Communication Sciences and Disorders
Review of the Literature

- The Impact of AOA on L2 Acquisition = ?

- The literature suggests that:
  - Aspects of L2 functioning are impacted by age of acquisition
    - L2 accent/phonology
    - Grammar (aspects)
    - Underlying cognitive substrates of language
  - Other aspects of L2 functioning: primarily impacted by proficiency levels in L2 and L1
Language Use and L2 Acquisition

- Individuals with
  - Access,
  - Opportunity,
  - Motivation/ High value on L2 =>

- “native-like” language skills
  - Pronunciation
    - Less accent in L2 with less use of L1
    - Grammar
L1 Proficiency and L2 Acquisition

- Bilingual education:
  - Consistent, positive relation between amount of L1 support/exposure and educational outcomes in English
  - Some late L2 learners become highly proficient in L2 grammatical skills
    - Due to L1 knowledge and resulting metalinguistic skills?
Language proficiency is a dichotomy of skills. Cummins (1981) identified two types:

- **Basic Interpersonal Communication Skills (BICS)**
  - Surface Language Proficiencies
  - Cognitive/Academic Language Proficiency
    - Language use/comprehension in decontextualized (academic) settings

- **Cognitive/Academic Language Proficiency (CALP)**

BICS/CALP are related. CALP is strongly related to literacy skills. Measuring BICS alone is misleading.
Differing Viewpoints—Why?

- Research Design Challenges
  - Widely varying definitions of proficiency
    - Limited explanatory precision—“native-like?”
  - Widely varying outcome measures
  - Limited power of analysis based on simple High/Low proficiency groupings
CALP as a variable

- Construct lends itself to standardized assessment (e.g. Picture Vocabulary; Verbal Analogies subtests of WMLS-NU)
- Standard scores provide a continuous variable to utilize in analysis and to compare to other measures
Research Questions:

- To what extent do age of acquisition, amount of use, and cognitive/academic language proficiency in L1 predict
  - accent in L2 (English)?
  - the ability to produce English past tense?
  - English cognitive and academic language proficiency?
Sample

- 82 sequential bilingual speakers*, ages 18 – 48 (mean age 23).
  - 80% female (66), 20% male (16)
  - 53% (44) born in the US; 47% (38) immigrated to the US

*Reported Spanish as their first language; English learned at or after age 3.
Predictors

- Language Background Questionnaire (adapted from Flege & McKay, 2004)
  - AGE = age of arrival (Johnson & Newport, 1989)
  - USE =
    - Early use: years of education in each language
    - Recent use (5 year): proportion of the language spoken based on “total talking time”
- **CALP—Spanish (L1) and English (L2)**
  - Woodcock Munoz Language Survey—Normative Update
    - Designed to measure CALP
    - Equated tests in English/Spanish
    - Strong reliability indices
    - Evidences of content, concurrent and construct validity

- **Cognitive Abilities**
  - **Standard Progressive Matrices (1998)**
    - Nonverbal assessment of perception and thinking skills (pattern completion)
    - Demonstrated statistically significant correlation with only 1 outcome: English CALP
Outcome Variables:

- **English Accent**
  - Average of 2 ratings: taped reading of a standard paragraph (containing most of the consonants, vowels and clusters of English)
  - Rater consensus = .80 (Spearman Rho); internal consistency .89

- **Paragraph from**
  - Speech Accent Archive website
    - [http://classweb.gmu.edu/accent/](http://classweb.gmu.edu/accent/)
English Regular and Irregular Past Tense Production (English Past Tense Test):

- Regular and Irregular past tense treated separately
- Regular Past Tense: 60 items, consisting of 20 per ending (/t/, /d/, /id/). Alpha = .91
- Irregular Past Tense: 20 items. Alpha = .84

English CALP
Procedures

- Participants tested in one 2-hour session by trained examiners
  - Participants completed the Language Background Questionnaire and the Standard Progressive Matrices independently
  - Examiners administered Spanish and English forms of the WMLS—MU (counterbalanced order)
  - Computerized measure of English regular and irregular past-tense; examiner scored
Hierarchical Regression Analysis

Chronological Model:
(L2 acquisition begins):

- Step 1: age of arrival
- Step 2: early language use (En/Sp)
- Step 3: Proportion of language use (5 year) (En/Sp)
- Step 4: L1 (Spanish) CALP
## Outcomes

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<tr>
<th>Predictors:</th>
<th>L2 Accent</th>
<th>EN Irreg PT</th>
<th>EN Reg PT</th>
<th>L2 (EN) CALP</th>
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## Post Hoc Analysis: Inclusion of Predictor L2 CALP

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Highly Proficient S/E Bilingual Speakers

- Have a high level of L1 CALP attainment—
  - Primary predictor of L2 (Eng) CALP
    - Which was the primary predictor of English grammatical skills (regular/irregular past tense)
- Do NOT necessarily have early exposure to L2 (if accent is discounted)
Bilingual Speakers with “native-like” L2 pronunciation

- Tend to have early exposure/AOA to L2
- Tend to have greater early use and greater current use of L2
Limitations

- Measures of use—difficult construct to measure; did not address early use at home
- Aspects of language proficiency not addressed:
  - Comprehension/production of language segments of varying complexity
- Social and Motivation factors not addressed
- Sample—college-educated participants
Directions for Future Research

- Transfer of skills – L2 to L1 (CALP); observed during developmental stages
  - “Threshold hypothesis”
- Differences of impact between age of arrival and age of reported L2 acquisition
Selected References


