

Bilingual Language Acquisition

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- “The bilingual child is not simply two monolingual children in one.”

– Hammer et. al., 2004

Background

- Simultaneous vs. Sequential
- When do we make the cut-off?
 - Typically 3 y.o.
 - Bhatia & Ritchie (1999) suggest prior to 1-word stage

Background, Cont.

- Simultaneous Bilinguals (Hammer, Miccio, Rodriguez, 2004)
 - To be in a bilingual environment must:
 - Follow directions
 - Speak
 - Interact
 - So TV doesn't make a child bilingual– why?

Background, Cont.

- Simultaneous bilinguals
 - “Rule of Grammont” (1913!): each parent/ context should speak only one language (i.e. “domain allocation)
 - Not necessary (Garcia, 1983– Preschoolers can separate mixed input)
 - Limitations (Hammer et. al., 2004)
 - 1) unnatural input pattern
 - 2) input not necessarily balanced
 - 3) unnatural social environment
 - 4) It's really tough to do!! (Goodz, 1999)

Implications

- Do these findings regarding the unique course of bilingual language development reflect on the unitary language vs. differentiated systems?

Background, Cont.

- Simultaneous Bilinguals
 - Patterns of Acquisition (Patterson, 1998)

TABLE 2. Bilingual toddlers' reported expressive vocabulary size in Spanish and English combined.

Age (months)	n	Mean	Median	Range	Minimum for 90% of children
21–22	31	101	49	7–525	20
23–25	43	128	110	18–297	37
26–27	28	208	214	59–431	82
21–27	102	142	125	7–525	25

Background, Cont.

- Sequential Bilinguals
- Stages of Acquisition (Roseberry-McKibbon)
 - I: Preproduction (Silent period!!)
 - II: Early Production (1-3 Words)
 - III: Speech Emergence (Simple sentences)
 - IV: Intermediate Fluency (Simple Narratives and Conversation)
 - V: Fluency

Background, Cont.

- Sequential Bilinguals
- How long does it take? (Dulay and Burt, 1980)
 - 2-3 years = BICS
 - 5-7 years = CALPS
 - Children may fall behind academically because they don't have the language skills
- “Bilingual children may have no trouble communicating in interpersonal conversations but may have difficulty with the decontextualized language that is necessary for school learning.” Schiff-Myers, 1992

Background, Cont.

- Sequential Bilinguals: Phenomena
- Schiff-Myers, 1992
 - Language Loss: “the weakening of an individual's first language because of a concentrated focus on the development of L2.”
 - Arrested development: “the child ceases to develop in L1.”
 - Semilingualism: “a condition in which one can communicate in both languages, but in which one can fail to reach monolingual literacy proficiencies in either.”
 - Occur in Subtractive Environments

Background, Cont.

- Sequential Bilinguals
- Patterns of Acquisition (Hammer et. al., 2004)
 - May be dominant in either L1 or L2
 - Both languages may be maintained
 - Non-dominant system may be lost and fluency in dominant attained
 - L1 may be lost fluency in L2 may not be attained (Limited Bilinguals!)

Background, Cont.

- Sequential Bilinguals
- Suggest that:
 - Exposure to L2 IN THE WRONG ENVIRONMENT prior to full proficiency in L1 may result in arrested development or regression
 - The level of competence in L2 is a function of competence in L1

Background, Cont.

- Sequential Bilinguals
- Skutnabb-Kangas & Toukomosa, 1976
 - Studied Finnish “working class” in Sweden
 - There was “a strong correlation between the development of Finnish prior to contact with Swedish and later proficiency in Swedish.”
 - Children who migrated after age 10 were able to have skills equivalent to those of monolingual Swedish and Finnish speakers
 - Children who moved to Sweden prior to 6-7 y.o. “were more likely to achieve low literacy skills in both languages.”

Implications

- So why do we care?
 - Besides justifying my own existence... ☺
 - Cummins interdependence and threshold hypothesis have profound implications for whether bilingualism operates as a “unitary language”
 - Interdependence: Instruction in L1 will facilitate development of L2
 - Threshold: The level of L1 proficiency needed for L2 acquisition

Background, Cont.

- Sequential Bilinguals
- Perozzi & Sanchez, 1992
 - Compared receptive acquisition of English prepositions and pronouns in two groups of English-Spanish bilingual first graders with LLD
 - Those who received instruction in Spanish acquired the ENGLISH words in _ the time of those who received instruction in English only

Genesee

- Big Question: Is bilingual acquisition:
 - “an undifferentiated or unitary underlying system” ?
 - Or are young children “psycholinguistically able to differentiate two languages from the earliest stages of bilingual development [and] use their two languages in functionally differentiated ways”?
 - Genesee argues that the former is not a foregone conclusion

Genesee

- Types of mixing
 - Phonological
 - Lexical (Most common)
 - Phrasal (supposedly no redundancy or errors?)
 - Morphological
 - Syntactic
 - Semantic
 - Pragmatic (odd example?)

Genesee

- Alternate explanations of mixing
 - Mixing may decline not because of separation of languages but because greater language proficiency renders it unnecessary
 - Children borrow lexical items from one language to complement the other
 - Means differentiation is a result of social competence
 - Children identify items with the most frequently applied label (???)
 - Children use the more simple and salient terms

Genesee

- Period of language mixing lasts until between 2 and 3
- Then period of language differentiation is entered
- Mixing considered evidence of unitary language system hypothesis
- Problem: These data not analyzed by context

Genesee

- What's shared in the processes for acquisition not the language system
- i.e. These explanations say that the acquisitional processes used in bilingual acq. are the same as those used monolingual acq.
 - Overextensions
 - Underextensions

Genesee

- Yet another explanation is that mixing are due to models of language mixing
 - Gave rise to rule of Grammont
 - Goodz, 1989: Frequency of children's mixed utterances correlated with the frequency of parental mixing
 - Methodological and practical concerns

Genesee

- Also language sample analysis shows that children may use their languages differentially based on pragmatics well before the differentiation phase

Genesee

- Evidence from infant perception studies:
 - Infants can differentiate at least the supersegmental aspects of language from birth
 - “Differentiation... minimally requires that children be able to discriminate perceptually.”
 - In other words, these studies indicate that the foundation to begin differentiation is there from birth

Genesee

- Your Questions
 - Does this paper reflect current understanding?
 - How can we implement his methodological suggestions?

Kohnert & Bates

- Research Questions:
 - How long does it take to achieve efficient processing in L2?
 - What happens to L1 as L2 skills increase?
 - Is there a processing cost of mixed-language tasks?
 - Are there differences with age?

Kohnert & Bates

- Models of Language Acquisition
 - Skill-learning: the two languages are two skills that compete for resources and can interfere with each other (predicts L1 loss)
 - Discontinuous: acquisition of language within a critical period guarantees retention of native-like skills irregardless of context

Kohnert & Bates

- Magiste
 - 4-6 years before processing speed was equal in L2 to that in L1 for simple tasks
 - Is this BICS?
 - Efficiency in L1 regressed as L2 improved

Kohnert & Bates

- The Experiment
 - 100 sequential bilinguals in 5 age groups (5-22 y.o.)
 - All participants acquired L2 in a subtractive formal schooling enviro. Beginning at ~5 y.o.
 - Measured response time and accuracy in determining if a picture and a spoken word “matched.”

Kohnert & Bates

- Results
 - Response time fell with age for all language conditions
 - A language preference shift occurred

Table 4. Language "dominance" by response variable on lexical processing tasks.

Age group	Comprehension		Production	
	Accuracy	RT	Accuracy	RT
5- to 7-year-olds	NS	NS	Spanish	NS*
8- to 10-year-olds	NS	NS	Spanish	English
11- to 12-year-olds	English	English	NS	NS
14- to 16-year-olds	English	English	English	English
College	English	English	English	English

Note. NS = no statistically significant differences ($p > .05$) between Spanish and English on the corresponding measure. Significant ($p < .05$) crosslinguistic differences are indicated by the name of the language in which performance was better (faster or more accurate). An asterisk (*) indicates faster mean group RT in Spanish, which approached but did not reach statistical significance.

Kohnert & Bates

- Your Questions
 - How should findings like these inform policy?
 - Why did this study not show L1 loss because the participants were in subtractive environments?
 - Why did differences in comprehension proceed differences in production?
 - What type of subjects (i.e. children vs. adults) are necessary for developmental research?
 - Would these results generalize to other language groups?

Kohnert & Bates

- Results, Cont.
 - 10 years req.'d for a switch to English production dominance
 - Consistent with skill-learning models

Mishina-Mori

- ULSH vs. Independent Development Hypothesis– Factors to Consider
 - Transfer: “the incorporation of a grammatical property from one statement to another.”
 - Acceleration: influence on the developmental timetable between the two languages

Mishina-Mori

- Research Questions
 - Is there structural influence?
 - Is there interference? In what percentage of the children?
 - Is the interaction of the languages affected by the nature of the languages?

Mishina-Mori

- The experiment
 - Two subjects (Ken and Rie) with differing Japanese-English bilingual environments
 - 1-2 Hour language samples over the course of the year
 - Question structure was analyzed for interference

Mishina-Mori

- Hypothesis
 - “There will be no transfer of question formation devices from one language to another.”

Mishina-Mori

- The conclusions
 - English and Japanese questions develop in a similar manner as in monolingual peers
 - But maybe some transfer for Ken?
 - There are both autonomy and interaction between the two language systems (Huh?)

Mishina-Mori

- Your Questions
 - Do bilingual children receive enough input from the environment?
 - Which theory (Unitary or dual) is currently in favor?
 - Why do grammatical structures develop at different times?
 - Why such big research questions?
 - Subject selection? Small n?

“Big Questions” for Discussion

- Do language acquisition patterns (sequential vs. simultaneous) and individual differences bear on whether bilinguals acquire languages as unitary or separate?
- How do these philosophical differences come from and/ or inform policy decisions?
- What is the ultimate goal of bilingual language acquisition? Someone functioning at the level of two monolinguals? Someone functioning at the level of one monolingual?
- What type of function are we talking about here? Oral and contextualized? Written and decontextualized?
- Can we really compare studies and draw conclusions when they vary so dramatically on patterns of acquisition, subject age and selection, type of proficiency and type of task?
- What's the “take-home message” here that can inform our practice or research?