

Arabic Plurals in L2 Acquisition

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1 Introduction

- Arabic pluralization is a morphological system strikingly different from English
- What is the learning path for such a system?
- To what extent does L2 acquisition of it parallel L1?
 - Not very much
- What accounts for the difference?
 - initial state?
 - nature of the input?
 - learning mechanism?

2 Plural morphology

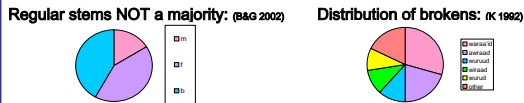
- English morphological inflection typically consists of an overwhelmingly frequent regular pattern and a few irregular exceptions (Daugherty and Seidenberg 1982)
- Arabic nominal plurals fall into three classes: regular w/masculine suffix, regular w/feminine suffix, and irregular or "broken" w/internal stem modification (Wright 1998)
- Broken plurals are subdivided into 30-odd types (5 most frequent below)

	Singular	Plural	Gloss	Template
Masculine:	mutarjim	mutarjim- <i>in</i>	translator	
	Tabbaax	Tabbaax- <i>in</i>	cook	
Feminine:	'akl	'akl- <i>aat</i>	food	
	sayyaara	sayyaar- <i>aat</i>	car	
Broken:	jarida	jaraa'id	newspaper	waraa'id
	jism	ajsaam	body	awraad
	qalb	quluub	heart	wuruud
	rajul	rijaal	man	wiraad
	kitaab	kutub	book	wurud

- Final *-a* can indicate feminine, unithood, or nothing at all
 - ~75% of feminine stems have it (in L2 input; 60% in native input)
 - ~20% of broken stems also have it (constant across input types)(type counts from textbook glossaries (Thackston 1996, Brustad et al. 1995, 1997) and Kouloughli 1992)

- Stems taking masculine plurals are limited to human males
 - not all human male stems take masculine plurals

- Feminine stems exhibit most phonological variability, and are largest single class *if* broken are decomposed (Boudelaa and Gaskell 2002)



3 Method

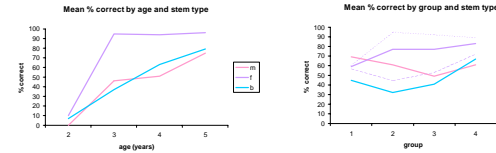
- L1 data: from Ravid and Farah (1999); real-word picture-naming, 12 children per age group
- L2 data: 43 adult English-speaking subjects, none native speakers of Arabic or other Semitic language, grouped based on course membership:

- Group 1 (n=7): completed one-month intensive Arabic course
- Group 2 (n=15): at end of 1 year university Arabic course
- Group 3 (n=16): at end of 2nd year university Arabic course
- Group 4 (n=5): at end of 4th year university Arabic course, also some immersion experience

- Written questionnaire with the singular stem (in Arabic script) and English gloss of 42 Arabic words in random order, all of which were in their textbook glossaries
- Instructed to write the Arabic plural of each word, and to make a guess even if they were not sure
- Stimuli were divided into 3 classes:

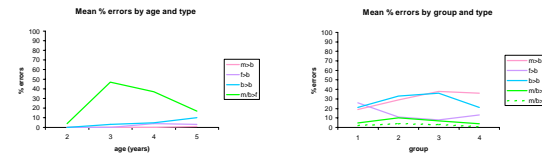
- Masculine stems: 14 items
- Feminine stems: 14 items, 9 w/final *-a*
- Broken stems: 14 items, 3 w/final *-a*

4 Results - correct



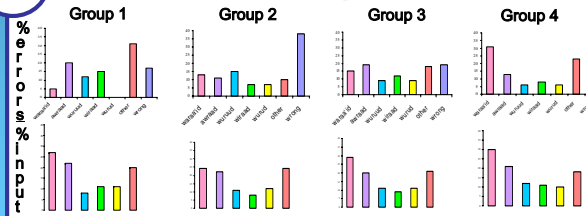
- Feminines rapidly reach ceiling
- Masculines and broken stems still not completely acquired at 5 years
- Semantic/phonological coherence in a class does not aid learning
- No overall effect for group level
- Better performance on feminines
- But cf separation between fem w/final *-a* and without (dotted lines)

5 Results - error analysis



- L1 errors overwhelmingly involve overapplication of feminine suffix
 - In L2 feminine overapplication is relatively rare
 - Virtually disappears without broken stems w/final *-a* (dotted line)
 - Feminine stems still advantaged because of majority w/final *-a*
 - Errors with broken outputs predominate
- m-b: masculine stem gets broken plural
 f-b: feminine stem gets broken plural
 b-b: broken stem gets incorrect broken pl
 m-b-f: masc/broken stem gets fem pl
 m-b-f2: above w/out broken *-a* stems
- Tabbaax → *Tabbaax
 'akl → *'akal
 Jarida → *Jarida
 Jism → *Jismat

6 Results - L2 broken plurals



- Distribution of input broken plural types is fairly constant across groups
- By Group 4, (erroneous) learner productions approximate it quite closely
- All learners usually produce possible broken plurals, not impossible ones

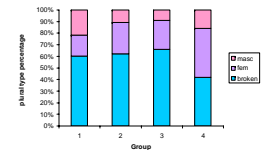
7 Summary

- L2 learners engage in morphological decomposition
- Apparent advantage of feminines is due to their hypothesis that final *-a* always indicates feminine and that no feminine stem lacks it
 - Recall that it's a better cue for feminine in L2 input than in L1 input (75 vs 60%)
- In its absence, a broken plural is used as a default
- Broken outputs mostly fall into the language's existing classes, and eventually reflect the input distribution

8 Whence the L1/L2 Difference?

Nature of the input?

- Frequency: Broken forms are even more predominant in L2 input than in the rest of the language – could explain their choice as default
- But most common broken type still <80% of feminine count for all groups



- Variability: Is it still greatest among feminines in L2 input? To be determined...

Initial state?

- Neither cross-linguistic naturalness nor overwhelming suffixation in English leads to its overgeneralization in Arabic, even though this is what Arabic L1 learners do
- So learners do not seem to straightforwardly transfer expectations about frequencies from L1 to L2
 - Another test: relativizer use in L2 Arabic. Forthcoming!
- But frequency might still be driving their behavior indirectly:
 - Rarity of broken forms in English makes the Arabic ones highly salient
 - Learners soon notice their frequency in Arabic relative to English
 - This results in overextension through a hypercorrection-like process

9 Selected references

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