PHONOLOGICAL INTERFERENCE WITH MORPHO-SYNTACTIC GUIDELINES: THE ACQUISITION OF HEBREW VERB INFLECTIONAL SUFFIXES

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The issue of the talk is the interface of phonology and morpho-syntax in language acquisition, with reference to the development of Hebrew verb inflectional suffixes. I will provide data suggesting that not all children follow the morpho-syntactic theories, which dictate the order in which verb inflectional suffixes should be acquired. I will argue that deviations from the morpho-syntactic guidelines are due to phonological development, to the extent that an affix can be produced only if the phonological grammar of the child allows it.

Predictions: Morpho-syntactic theories make strong predictions regarding the order in which verb inflectional suffixes will appear in children's speech:

(1) Syntactic theory (Armon-Lotem 2006):   number&gender > person
Morphological theory (Harley&Ritter 2001):   number > gender
The two theories together: number > gender > person

I will concentrate in these talk on three Hebrew suffixes, predicted to appear as follows:

(2)

Number	>	Gender	>	Person
-im		*-a*		*-ti*
'ms.**pl** Present'		'(3ʳᵈ) **fm**.sg. Present&Past'		'1ˢᵗ **pr**.sg. Past'

(3) Sample data

Child	Target		
-im 'ms.pl. Present'			
koθím	kofcím	'jump'	SR (1;06.02)
falím	noflím	'fall'	SR (1;08.17)
samím	samím	'put'	RM (2;03.24)
oxlím	oxlím	'eat'	RM (2;05.09)

Child	Target		
-ti '1ˢᵗ pr.sg. Past'			
báti	báti	'came'	SR (1;00.09)
θagáti	sagárti	'closed'	SR (1;11.02)
ijámti	sijámti	'finished'	RM (2;00.16)
asíti	asíti	'did'	RM (2;02.04)

***-a* '(3ʳᵈ) fm.sg. Present&Past'**							
boxá	boxá	'cries'	SR (1;08.10)	šená	ješená	'sleeps'	RM (1;09.10)
niberá	nišberá	'broke'	SR (1;11.07)	ispará	nišberá	'broke'	RM (2;01.27)

Facts: Data from a longitudinal study of two typically developing Hebrew-acquiring children reveal deviations from the predicted order of acquisition.

(4) a.   Number and gender

    i.   SR (a boy) followed the syntactic theory (1a), acquiring number and gender during the same session (1;06.02), though with a quantitative advantage to gender in types per session throughout the studied period (34% vs. 28%).

ii.   RM (a girl) did not follow any theory, acquiring gender (1;09.10) before number (1;11.18), with a significant quantitative advantage to gender in types per session throughout the studied period (22% vs. 11%).

b.   Number and person

i.   SR, again, was morpho-syntactically obedient, acquiring number (1;06.02) way before person (1;09.00), with the expected quantitative advantage to number in types per session throughout the studied period (28% vs. 17%).

ii.   RM was consistent in her rebellion, acquiring person (1;10.28) slightly before number (1;11.18), with a significant quantitative advantage to person in types per session throughout the studied period (24% vs. 11%).

The question to be addressed is why RM deviates from the morpho-syntactic guidelines.

The answer – Phonology: I will argue that RM's seemingly unexpected morphological development can be anticipated when phonological development is taken into consideration, in particular the development of word final coda.

a.   Both children started producing verb inflectional suffixes at the same lexical stage (number of verbs in their lexicon).

b.   Both children acquired the suffix with a final coda (the plural *-im*) when they reached about 90% faithful productions of word final coda.

c.   SR reached 90% faithful productions of word final coda at the stage where he was supposed to produce the plural suffix *-im*.

d.   RM's development of word final codas was slower, and at the stage where she was supposed to produce the plural suffix *-im* she was not yet phonologically ready, as she had not reached 90% faithful word final codas. While waiting for her phonology to be suitable for suffixes with a coda, RM continued her morphological development, producing the codeless suffixes *-a* 'fm.sg.' and *-ti* 1st pr.sg.' in the syntactically expected order, i.e. *-a* (1;09.10) before *-ti* (1;10.28).

General arguments: I will thus argue that morpho-syntax provides the children with guidelines, with which the phonology may interfere. In particular, if a suffix called for by the morpho-syntax is not compatible with the child's phonology, the production of the suffix will be blocked. I will also support the selectivity in productions (Schwartz 1988), whereby children are reluctant to produce grammatical morphemes with marked structure, although this structure is produced in stems, in our case just below 90% (Marshall & van der Lely 2007).

Armon-Lotem, S. 2006. Subject use and the acquisition of verbal agreement in Hebrew. N. Gagarina and I. Guelzow (eds) *Acquisition of Verb Grammar and Verb Arguments*. Dordrecht: Kluwer Academic Publishers. 269-291.

Harley, H. and E. Ritter. 2002. Person and number in pronouns: A feature-geometric analysis. *Language* 78:45-69.

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Schwartz, R. 1988. Phonological factors in early lexical acquisition. Michael Smith and John Locke (eds) *The Emergent Lexicon: The Child's Development of a Linguistic Vocabulary*. San Diego: Academic Press. 185-222.