Understanding phonologically conditioned allomorphy: an Armenian case study

Eva Melkonyan – McGill University

Introduction: It is generally assumed that Armenian plural allomorphy depends on the syllabic structure of the noun: /-er/ is chosen in case the noun is monosyllabic and /-ner/ otherwise (Vaux, 1998; Garibyan & Garibyan, 1987). However, plural allomorphy's sensitivity to schwaepenthesis differs in Eastern Armenian (EA) and Western Armenian (WA) dialects: epenthesis seems to apply before allomorphy selection in EA but after in WA. In this talk, I show that the difference between the two dialects lies in dialect-specific subcategorization conditions rather than rule ordering. I further argue that sensitivity of phonologically conditioned suppletive allomorphy (PCSA) to phonological processes such as epenthesis occurs not only in Armenian but in other languages as well (contra Paster, 2006).

Data: According to Vaux (1998, 2003) both WA and EA dialects avoid rising sonority consonant clusters in coda position through schwa epenthesis[1]:

(1) /arevn/ → [arevən] 'sun'
/manr/ → [manər] 'small thing'

As can be seen from the example below, in EA, plural allomorphy is conditioned by epenthesis.

(2)

Input	*Singular*	*Plural*
/manr/	[manər]	[manər-ner]

In WA, on the other hand, the choice of plural allomorphy seems to be determined before schwa epenthesis in such cases and /-er/, the allomorph for monosyllabic stems, is chosen over /-ner/:

(3)

Input	*Singular*	*Plural*
/manr/	[manər]	[manr-er] / *[manər-ner]

It might seem that the choice of /-er/ in (3) is motivated by sonority well-formedness constraints. However, the example in (4) shows otherwise:

(4)

Input	*Singular*	*Plural*	
/artosr/	[artosər]	[artosər-ner]/ *[artosr-er]	'tear drops'

If the stem is polysyllabic and ends with a rising sonority consonant cluster, /-ner/ is chosen over /-er/ and schwa epenthesis is used to split the stem-final consonant cluster. Furthermore, only the realization of plural is sensitive to schwa-epenthesis. For example, the dative case in Armenian is expressed by the the suffix /-i/. However, while the epenthesized schwa appears in singular and plural forms (see examples (2) and (4)), it is not pronounced in the dative form in either dialect:

(5)

Input	*Singular-Nominative*	*Singular-Dative*
/manr/	[manər]	[manr-i]/ *[manər- I]

Dialectal Difference: At first glance it seems that the data is derived through phonological rule ordering: in EA schwa is epenthesized before plural allomorphy and in WA after pluralization. In this talk I show that the apparent difference in ordering is derived from the interaction of phonological constraints with cyclic Spell-Out at word-level syntax. Marantz (2001), Marvin (2002), Skinner (in progress), Newell (2008) and many others argue that category-defining phrases (i.e. nP, vP, aP, etc.) constitute phases whose heads send their Spell-Out domain to the PF

1 All examples are taken from Vaux, 1998 and Vaux, 2003.

interface (Chomsky, 2001). I propose, then, that the plural suffix's sensitivity to phonological structure of the stem is due to Spell-Out of nP, where full syllabic structure is derived through hierarchical ordering of constraints, including sonority constraints which trigger schwa epenthesis. The difference between WA and EA lies in how plural allomorphy is sensitive to phonological structure: in EA the choice of the allomorph depends on the syllabic structure of the noun and in WA on the moraic structure. I show that in Armenian, as in Mohawk (Piggott, 1995) and Amazigh (Bensoukas, 2007), epenthetic schwa is non-moraic. Thus, in WA, /-er/ is chosen over /-ner/ in such cases as (3) because the stem is mono-moraic. The non-pronunciation of schwa in (3) and (5) stems from its deletion for independent syncope reasons: I argue that schwa in the final syllable is deleted in such cases because the affix is vowel-initial. In example (4), on the other hand, schwa is pronounced because the plural allomorph is consonant-initial. The alternation between [ə] and [ø] follows a pattern widely discussed in the literature of Government Phonology (e.g. Harris (1994), Charette (1990)).

General Predictions: According to Paster (2006), PCSA can only be sensitive to the phonological input of the stem or the stem's syllabic/moraic structure. If, however, syllabic structure is phonologically derived (rather than being specified in the lexicon), one would predict that PCSA should also show sensitivity to phonological processes such as epenthesis or deletion. The EA data shows that allomorphy can be sensitive to epenthesis. In this talk I present additional data from other languages where allomorphy is sensitive not only to epenthesis but to other phonological processes as well.

Conclusion: In conclusion, under my analysis the Armenian plural allomorphy's sensitivity to phonology stems from cyclic Spell-Out within the nominal domain rather than phonological rule ordering. My proposal further leads to specific predictions about PCSA which are borne out cross-linguistically.

References:

Bensoukas, K. 2007. 'Variable syllable weight in Moroccan Amazigh.' In K. Bensoukas and A. Boudlal (eds.), *Issues in Moroccan Linguistics: Papers in Optimality Theory,* 31-58. Fes: Sidi Mohamed Ben Abdellah University.

Charette, M. 1990. 'License to govern.' *Phonology Yearbook* 7: 233-253.

Chomsky, N. 2001. 'Derivation by phase.' In M. Kenstowicz (ed.), *Ken Hale: A life in language,* 1-52. Cambridge, Mass.: MIT Press.

Garibyan, A. & J., Garibyan. 1987. *Kratkii kurs Armyanskogo yazika.* Erevan: Luis.

Harris, J. 1994. *English sound structure.* Oxford: Blackwell.

Marantz, A. 2001. *Words*. Ms., MIT.

Marvin, T. 2002. *Topics in the stress and syntax of words.* Ph.D. Dissertation, MIT.

Newell, H. 2008. *Aspects of morphology and phonology of phases.* Ph.D. Dissertation, McGill University.

Paster, M. 2006. *Phonological Conditions on Affixation.* Ph.D. Dissertation, University of California, Berkeley.

Piggott, G. 1995. 'Epenthesis and syllable weight.' *Natural Language and Linguistic Theory* 13: 283-326.

Skinner, T. in progress. *Investigations of downward movement*. Ph.D. Dissertation, McGill University.

Vaux, B. 1998. *The phonology of Armenian.* Oxford: Oxford University Press.

Vaux, B. 2003. 'Syllabification in Armenian, Universal Grammar, and the Lexicon,' Linguistic Inquiry 34: 91-125.