## Issues of Homophony and the Minimal Word in the Adyghan languages

Most previous studies into phonology of the Adyghan languages (Kabardian and Adyghe) have focused primarily on the controversy surrounding its phonemic vowel system and the status and distribution of epenthetic schwa (Kuipers 1960; Halle 1970; S. Anderson 1978; Colarusso 1992; J. Anderson 1991; a.o.), and its interaction with the diverse consonant clusters found within the language group (Padgett 1995). Peterson (to appear) approaches this debate, presenting the two part claim that (i) the syllable structure in Kabardian can be derived from the universal principles of syllable well-formedness and proper headedness within the prosodic hierarchy (Itô & Mester 1994; Shaw 1996), revealing a regular CV:/CVC-type syllable, and (ii), schwa has no phonemic status in the language: its distribution also follows from these principles in a predictable way. This paper reviews and extends this analysis, claiming that the Adyghan languages, such as Kabardian, are also subject to two types of minimality conditions. The first is type, is called *prosodically-conditioned* minimality (PCM), which requires that an Adyghan syllable minimally contain a nucleus, and moraic weight (represented by the mora  $\mu$ ) in its prosodic structure (Hayes 1989). Coupled with established principles of syllable well-formedness, the nucleus node (N) serves to license an epenthetic schwa (which is assumed to be non-moraic), while each syllable additionally requires minimally one mora (thus accounting for a prevalent and predictable gemination pattern found in the language). This in turn produces the following minimal core syllable canons for the Adyghan languages:

(1)	a. <u>o</u> r	b. <u>o</u>
	11147	⊬Ϋ]
	C (C) ə (Ċ)(C)	C (C) a (C)(C)

However productive, standard syllabification conditions coupled with the PCM undergenerate epenthetic schwa in forms such as (infinitive) verbs used as words, /c-h-a/ there-enter-in  $\rightarrow$  [coh.ħæ] 'to enter (there)', modified nouns /fz-z/ woman-old  $\rightarrow$  [fizz] ~ [fiz.zíz] 'old woman', compounds /m\zeta-ps/ ice-water  $\rightarrow$  [m ps] ~ [m . 'ps] 'melt water', /c-fa/ sea-skin  $\rightarrow$  [ccf.fæ] 'surface of the sea', and adjectives /jarc/  $\rightarrow$  [jer.ric] 'stubborn, persistent'. This undergeneration (and in some cases variation) is accounted for by the second type of minimality, *grammatically-conditioned minimality* (GCM), designated as such because it is sensitive to the grammatical class of the word it applies to. While PCM applies below the level of the syllable (minimally requiring both a nucleus N (epenthetic schwa) and an independent mora), GSM applies at the level of the foot ( $\Phi$ ), further requiring that words belonging to these grammatical classes contain minimally two syllables to a foot. Both PCM and GSM work in tandem to produce a minimal word in the Adyghan languages.

An example of how epenthetic schwa, the PCM and GCM work together can be observed in the following set of examples from Kabardian:

(2)	a.	[sə́ħ.ħæ]	b.	[sə́ħ.ħæ]	c.	[ɕħæ] d.	[sħɛ]
		/ɕ-ħ-a/		/cħa/	/ɕħa/		/ɕħ/
		there-enter-i	n	'to provoke someone' 'head'			'similar'

In a language group where the core lexicon is comprised of mostly monosegmental roots, it is not

surprising that there is a considerable amount of polysemy and homophony in the language (Kuipers 1960: 82). Mindful of this, Colarusso (1992:18-19) cites the examples in (2) as evidence against a predictable schwa analysis, positing underlying schwa for b. /cəħa/ in order to account for the contrast with c. /cha/. However, the resulting surface contrast between b. /caha/  $\rightarrow$  [cah.ha] and a.  $/c-\hbar-a/ \rightarrow [co\hbar,\hbar\infty]$  is now neutralized. One advantage of underlying schwa in these cases is the option of lexically encoding the contrast between b. /səħa/ and c. /sħa/: the surface result would simply be a case of homophony between b. and a. [contact hemophony between b. and a. approach the surface form b. [sonthat] is now fully predictable given the application of PCM and GCM derived from the underlying form /cħa/: PCM would fail to apply as [cħa] contains both a nucleus and a mora, but GCM would apply creating the bisyllabic minimal word required of that grammatical class (verbs used as words). By adopting the underlying representation in b. /cha/ that is consistent with the predictable schwa hypothesis, there is now underlying homophony with c. /cħa/ 'head'. It may appear unfavourable to have homophony both underlyingly (b. and c.) and on the surface (a and b.) as a predictable schwa analysis would claim, rather than only surface homophony between a. and b. and encoding the contrast between b. and c. with underlying schwa. However, encoding schwa underlyingly in this case to avoid this underlying homophony does not help the language learner avoid it on the surface. Rather, schwa's position on the surface can be predicted in b., and the surface homophony that results is actually a predictable outcome of a general, grammatical-conditioned phonological operation (GCM) that systematically picks out that grammatical class (i.e. infinitival verbs functioning as prosodic words), regardless of whether it is encoded underlyingly or not. GCM predicts schwa's surface distribution in the grammatical classes where it applies (verbs), and sets it apart from another grammatical class (nouns) where it does not.

The interactions between the lexicon and what it means to be a minimal word in the Adyghan languages are examined in detail. It is claimed here that it is preferable to have both lexical and surface homophony, where the surface homophony is predictably and principally derived from a simpler lexicon (without underlying schwa), rather than burdening the lexicon in saving lexical homophony (i.e. underlying schwa: /cəħa/ and /cħa/ 'head').

References

- 1. Anderson, J. 1991. "Kabardian disenvowelled, again." Studia Linguistica 45, 1848.
- 2. Anderson, S. 1978. "Syllables, segments, and the Northwest Caucasian languages." In *Syllables and Segments*. A. Bell and J.B. Hooper, eds.: North Holland Publishing Company
- 3. Colarusso, J. 1992. A Grammar of the Kabardian Language. University of Calgary Press
- 4. Halle, M. 1970. "Is Kabardian a vowel-less language?" *Intl. Journal of Language and Philosophy* 6, Pp. 95
- 5. Hayes, B. 1989. "Compensatory lengthening in moraic phonology." *Linguistic Inquiry 20*. 253-306.
- Itô, J. & R.-A. Mester. 1994. "Reflections on CodaCond and alignment." in Phonology at Santa Cruz, Vol. 3. J. Merchant, J. Padgett & R. Walker (eds). S.C.: Linguistics Research Center. 27-46.
- 7. Kuipers, Aert H. 1960. "Phoneme and morpheme in Kabardian Eastern Adyghe." *Janua Linguarum, no.* 8. The Hague: Mouton.
- 8. Peterson, T. to appear. "Minimality and syllabification in Kabardian" In Papers from the 39th Meeting of the Chicago Linguistics Society. Chicago: University of Chicago
- 9. Padgett, J. 1995. Stricture in Feature Geometry. Stanford, CA, CSLI Publications.
- 10. Shaw, P. 1996. "Degenerate syllables" Paper presented at the 8th Intl. Phonology Conference, Vienna: Handout.