

THE POSITION OF /ə/ IN THE
PHONOLOGY OF KWAKW'ALA AND
ITS USE IN THE ORTHOGRAPHY

together with

A LINGUISTIC KEY TO
THE ALPHABET

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The following pages constitute Appendices III and II respectively of A Practical Writing System and Short Dictionary of Kwakw'ala which I am currently preparing: therefore some of the remarks may appear a little out of context. Such remarks, however, should have little or no effect on the general topics, and I present them here for any comments or criticism.

THE POSITION OF /ə/ IN THE PHONOLOGY AND
ITS USE IN THE ORTHOGRAPHY

Boas, throughout his work on Kwakw'ala, insisted on a distinction between short and long vowels. In his earlier work he distinguished four short vowels /i, u, ə, ʌ/, but he later on recognized that [i] and [u] were allophones of /ə/. He also realized that there was some sort of relationship between [ʌ] (Boas: "ǎ") and /ə/, but could not establish what that relationship was, since he saw [ʌ] as an allophone of /a/ rather than /ə/. Because of this problem, Boas was forced to establish a complicated system of root canonical shapes which would react in various ways when subjected to suffixation and reduplication.

Grubb, too, observed this short vowel - long vowel dichotomy in 1969,¹ but it has since become evident that both Boas and Grubb overlooked the phenomena of epenthetic [ə] and vowel reduction to [ə]; Boas because he probably knew very little about morphophonemics, and Grubb because he chose to ignore it. Even now, the position of /ə/ is not entirely clear, but some generalizations can be made about its occurrence, and its use (as "e") in the present orthography.

In the first place, it is necessary to re-establish the existence of the phoneme /ə/. Boas states, "Since ε (/ə/) occurs alone between unvoiced

1. D. Grubb. A Kwakiutl Phonology. Unpublished M.A. Thesis, Victoria, University of Victoria, 1969.

consonants as in $sək'á$, $plək'á$, $lək'á$ ($səká$, $pləká$, $ləká$), it must be an independent phoneme."² This, however, is no criterion for establishing a phoneme, especially since there are no minimal, or even sub-minimal, contrasts to be found.³ Furthermore, while one must be wary of comparisons across language boundaries, Kortlandt cites one of the same forms in Bella Bella as $ská$ (both mean 'spearing'), which throws even more suspicion on the Kwakw'ala form and Boas premise.⁴

What does provide evidence for establishing a separate phoneme is the difference between $/ək'á/$ 'blood' and $/lək'á/$ 'to faint'.⁵ Nevertheless, it is difficult to find examples of this evidence, and $/ə/$, in morphophonemic terms at least, appears to be relatively rare.

Secondly, it is noticeable that the predominant phonemic root canonical shape is CVC-, which includes syllabic resonants, and that consonant clusters never occur word initially: hence $/lápá$, $čáya$, $qíhi$, $númas$, $x'ém̄di$,

what does?
what is a "syllabic resonant" here?

2. F. Boas. "Kwakiutl Grammar with a Glossary of the Suffixes", Transactions of the American Philosophical Society, New Series, Vol. 37, Part 3, Philadelphia, 1947. p.208.

3. I have found one possibility, namely $/púsqa/$ 'hungry' and $/səqá/$ 'hopping of frog' (i.e. $[-sq-] \sim [səq-]$) but this will not really stand up, since the first is two morphemes, $\{pus-\}$ + $\{-qa\}$, whereas the second is a single root morpheme $\{səq-\}$.

4. F. Kortlandt. Unpublished fieldnotes, Leiden, 1973. There are further examples of this phenomenon between the two languages. I feel that Kwakw'ala is the divergent language, but this will require much more comparative work before it is proven.

5. It is possible that at the semantic level we could find these two related in a sememe "lk'", having something to do with blood, or the lack of it, but this is not our concern here.

s.o.
 síkwa
 xwámdi

saká, wəq'á/. However, it is also remarkable that, except when combined with a resonant (i.e. to make a syllabic resonant), /ə/ almost never occurs as a stressed vowel in words of more than one syllable. The only instance of stress co-occurring with /ə/ is where there is no other vowel or syllabic resonant in the word, in which case stress is on the final syllable, as in /kəxədák'/, but /pədəxəlá/.

This situation would suggest that many of the occurrences of /ə/ are, in fact, epenthetic at the morphophonemic level, thus giving //lápá, čáya, gíñi, numas// but //x'ímdi, ská, wəq'á, kxd(ə)k', pəxlá//. This seems to admit of a possibility of a root canonical shape of CC- at the morphophonemic level.

Moreover, there seem also to be instances of vowel reduction to /ə/ which occur as the result of morphophonemic changes in the stem caused by suffixation and/or reduplication. Boas recognized these features, but had to deal with them in phonetic/phonemic terms which would not allow him to resolve the difficulties, except by an elaborate description of each suffix's action on the twenty-three subclasses of root canonical shapes.⁶

However, without going into details here, but without also understating the complexity of this aspect of the grammar, preliminary analysis would indicate that, at the morphophonemic level, many of the problems of vowel reduction (or conversely, vowel expansion), as well as epenthetic /ə/, can be resolved in a simpler fashion, resulting in a more convenient grammatical

6. cf. bəg'ánəm, bíbəg'anəm, bábəg'əm, bák'əm, bək'és, bəg'ís.

Do consonant clusters ever occur (except at morpheme boundaries)?

If not, then ə can be epenthetic throughout to separate consonants which would otherwise be phonetically contiguous (there would then be phonemic consonant clusters, of course), although morpheme boundaries might have to be marked. Stress would occur on vowels and resonants (which would then be ɛR). But statement. what is to be done with instances like $\text{k}^{\text{h}}\text{x}\text{əd}\text{s}\text{k}^{\text{w}}$? 43

Despite this reduction of /ə/ in morphophonemic terms, we must still deal with its realization at the phonemic level, since we cannot ignore the problem in the orthography. Hess points out, "Our experience has been that those who are fluent in the language favour a system that is more phonemic, with a few morphophonemic conventions, while those who are learning the language as adults find a system that incorporates more morphophonemic forms to be easier."⁷ We do not dispute Hess' observations, and it is likely that others have discovered the same results in their own areas. However, we are also dealing with at least one more parameter than Hess in the present orthography, namely that of the symbols used.

Thus we are faced with the problem of whether to distinguish between morphophonemic //ə// , epenthetic /ə/ , and ə/ as a reduction of another vowel, so that we arrive at /əbás/ 'one's mother', /ská/ 'spearing', and $\text{/bæg}^{\text{h}}\text{ánəm/}$ 'man', or to reduce them all to a phonemic realization of /əbás/ , /səká/ and $\text{/bæg}^{\text{h}}\text{ánəm/}$. At this stage, the answer must be based more on practical considerations than on theoretical. Hence, since most of those learning the system are not totally fluent in Kwakw'ala, we have chosen the phonemic approach, because that is closer to what the students will hear, and it will complicate matters, at this stage, to introduce morphophonemic theories. Moreover, since the grammar is little understood, it is better

7. T. Hess. "On Pedagogical Grammars for Salish Languages", paper presented at the 8th International Conference on Salish Languages, 1973.

to err on the side of overdifferentiation, by writing all instances of /ə/, until the morphophonemic intricacies are more fully investigated.

Besides the theoretical implications there are two important results to be gained by writing /ə/ in all cases. The first is that it teaches a more exact pronunciation to the students: if they read "ska" they may pronounce it *[ska] instead of [səká], or "púsk'a" as [púseða] instead of [púsða].

The second result is a corollary of the first in that it solves the problem of distinguishing between a two-consonant grapheme, such as "tl" [χ], and a sequence of two single-consonant graphemes, as in "t" + "l". For example, /kútəla/ 'fish', if written morphophonemically, would appear as "k'utla" which could be pronounced either *[kúχa], or [kútəla]. By inserting "ə" there is no room for error in pronunciation -"k'utela"- and the same is true in reverse (cf. /míχa/ 'teaser' = "mitla" = [míχa] not *[mítəla]).

This problem, of course, would not occur if only IPA symbols were used and taught as is Hess' practice for Skagit. However, we feel that providing a maximal transference from the English alphabet to facilitate the learning of Kwakw'ala greatly outweighs this consideration, and the inconvenience, linguistically, is minimal. Time and further investigation will tell whether the choice is sound.

Nonsense

LINGUISTIC KEY TO THE ALPHABET

The following is a brief description of the allophonic distribution of the phonemes of Kwakw'ala, listed in alphabetic order in conformity with the remainder of the text. It should be noted that the allophony of the vowels is very general, since much depends on both preceding and following consonants.

- a /a/ low mid unrounded vowel with the following allophones:
 [æ] before and after palatalized consonants.
 [a] after uvulars.
 [ə] in all other environments.
- b /b/ voiced bilabial stop, which can occur as [p^h] in some idiolects.
- d /d/ voiced alveolar stop, often occurring as [t^h] in word final position.
- dl /ʌ/ voiced laterally affricated stop.
- dz /ʒ/ voiced affricated alveolar stop.
- e /e/ mid central unrounded vowel with the following allophones:
 [i] before and after palatalized consonants.
 [u] before and after labialized consonants.
 [ʌ] after non-labialized uvular consonants.
 [ə] all other environments.
- eh /c/ lower-mid front unrounded vowel most often realized as [ɛ].
 There is sometimes an apparent overlap with [e], the lower allophone of /i/.
- /g/ voiced palatalized velar stop [gʲ]. Before /i/ palatalization is progressively assimilated.

- gw /g^w/ voiced labialized velar stop.
 g /g/ voiced uvular stop.
 gw /g^w/ voiced labialized uvular stop.
 h /h/ voiceless laryngeal fricative.
 i /i/ high front unrounded vowel. There is a considerable free variation, determined by dialect and idelect, but generally there is the following distribution:
 [e] after uvulars.
 [i] all other environments.
- k /k/ voiceless palatalized velar stop. Palatalization assimilates progressively before /i/.
 kw /k^w/ voiceless labialized velar stop.
 kⁱ /kⁱ/ voiceless glottalized palatalized velar stop. Palatalization assimilates progressively before /i/.
 kwⁱ /k^{wi}/ voiceless glottalized labialized velar stop.
 k /q/ voiceless uvular stop.
 kw /q^w/ voiceless labialized uvular stop.
 kⁱ /qⁱ/ voiceless glottalized uvular stop.
 kwⁱ /q^{wi}/ voiceless glottalized labialized uvular stop.
- l /l/ voiced lateral alveolar resonant.
 lⁱ /li/ voiced glottalized lateral alveolar resonant, normally realized as preglottalized [ʔl], except in word final position (rare) where it is postglottalized [lʔ].
- lh /lh/ voiceless alveolar lateral fricative.
 m /m/ voiced bilabial resonant.
 mⁱ /mi/ voiced glottalized bilabial resonant, normally preglottalized [ʔm], except in word final position (rare) where it is postglottalized [mʔ].

n	/n/	voiced nasal alveolar resonant.
ḥ	/h/	voiced glottalized nasal alveolar resonant, normally pre-glottalized [ʔn], except in word final position (rare) where it is postglottalized [nʔ].
o	/o/	low,back rounded vowel, always realized as [ɔ].
p	/p/	voiceless aspirated bilabial stop.
pʰ	/pʰ/	voiceless glottalized bilabial stop.
s	/s/	voiceless alveolar slit fricative.
t	/t/	voiceless aspirated alveolar stop.
tʰ	/tʰ/	voiceless glottalized alveolar stop.
tl	/ʎ/	voiceless laterally affricated alveolar stop.
tlʰ	/ʎʰ/	voiceless glottalized laterally affricated alveolar stop.
ts	/c/	voiceless affricated alveolar stop.
tsʰ	/cʰ/	voiceless glottalized affricated alveolar stop.
u	/u/	high back rounded vowel. There is considerable free variation, determined by dialect and idelect, but generally there is the following distribution: [ɔ] after uvulars. [u] all other environments.
w	/w/	voiced bilabial semi-vowel.
ḡ	/wʰ/	voiced glottalized bilabial semivowel, always preglottalized [ʔw].
x	/x/	voiceless palatalized velar fricative. Palatalization assimilates progressively before /i/.
xw	/xʷ/	voiceless labialized velar fricative.
χ	/χ/	voiceless uvular fricative.
χw	/χʷ/	voiceless labialized uvular fricative.

- y /y/ voiced palatal semi-vowel.
- ÿ /ÿ/ voiced glottalized palatal semi-vowel, always preglottalized
[ʔy].
- ʔ /ʔ/ glottal stop.