A note on Shuswap phonemics

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0. When Aert Kuipers' grammar of the Squamish language appeared in 1967, the publication of the book marked an era in Americanist linguistics: it was the most comprehensive description of a Salish language so far. Now Kuipers' Shuswap grammar has just appeared, and this book again shows its author's masterly descriptive technique. We can only hope that the series of monographs thus established will be continued in the near future.

1. The theoretical framework of Kuipers' descriptions has its roots in the best American linguistic tradition, which goes back to Leonard Bloomfield. The central concept in the description is the morpheme, and the central principle of the analysis is the identification of morpheme variants. A consistent application of this principle has important consequences for the description of the phonemic system. It is beyond doubt that the statement of morphological rules is greatly simplified by choosing a transcription which minimizes the phonemic variation in one and the same morpheme. On the other hand, the cost of this simplification is the loss of biuniqueness between the phonetic and the phonemic representation of sounds. Though the phonetic shape of a word remains immediately derivable from the transcription, the converse does not hold true. In this paper I shall discuss the cases where Kuipers' transcription of Shuswap cannot be derived from the phonetic facts without the use of additional information about morphological relationships. Page numbers refer to Kuipers' new monograph unless indicated otherwise.

It should be clear that a transcription which requires preliminary knowledge of morphological identities, such as the notation develmoped by the Moscow school of phonology in the 'forties of our century, or the one proposed by the MIT generativists in the 'sixties, is not phonemic in the sense attributed to this term by Bloomfield and Trubetzkoy. In the conception underlying the morphological approach, a phoneme is not "the mere generalization of anthropophonic properties", i.e. a bundle of distinctive features, but "the mobile component of a morpheme and the mark of a certain morphological category", i.e. a family of automatically alternating sounds, as Baudouin de Courtenay pointed out as early as 1881 in his Otdely sravnitel'noj grammatiki slavjanskix jazykov (Selected writings I, Moscow 1963, p. 122). This approach, which was first applied consistently by Jakovlev in the 'twenties, particularly suits the analysis of languages like Kabardian or Shuswap, where the resonants have a wide range of vocalic and consonantal allophones.

2. The emphasis on phonemic invariance of morphemes rather than phonetic invariance of phonemes entails different interpretations of the same sound in different positions. Thus, the sound [u] is interpreted as /u/ when stressed, but as a resonant in unstressed syllables, e.g. [x̌úpʌns] /ťupns/, [nəkŭ?] /nkŭ?/, but [tmóĺusəm] /tmoĺwsm/, [kəkɛ́šu?] /kəkésẇ/ (p. 25). The same holds for [i], e.g. [síλčuː] /siλčw/, [sxiláp] /sxylap/, [smi?níp] /smẏnip/. This phonemicization, which is in accordance with the above principle because stressed [u] alternates with unstressed [ə] and unstressed [u] alternates with [w], does not violate the biuniqueness condition since it can be decided on the basis of the stress placement whether [u] is a realization of /u/ or /w/. A similar difference appears

in the interpretation of the two occurrences of [ɛ] in [kɛntɛ́s] /kntes/, where stressed [ɛ] alternates with unstressed [ə] and unstressed [ɛ] is automatic after [k] before [nt] (p. 25).

Another instance of the principle that phonemic invariance of morphemes is preferable to phonetic invariance of phonemes is found in Kuipers' discussion of vowels in a uvularized environment. "Before uvular obstruents, and before and after uvularized resonants, the oppositions e-a and u-o are neutralized. Though the actual pronunciation is that of the second members of these pairs, I write e u for reasons of regularity of structure and simplicity of rules" (p. 22). Here again, the morphological approach does not lead to violation of the biuniqueness between phonetics and phonemics because the correct interpretation can be derived from the environment without reference to the morphology.

3. This is no longer so when we turn to another of Kuipers' neutralization rules. "Before and after u all consonants which are members of pairs exhibiting the rounding-correlation are rounded. The same is true of any such cons. which adjoins an independently or automatically rounded cons., or which is separated from it by ə only" (p. 22). In such cases the choice between /k/ and /k̊/ is based on morphological considerations. "A distinction has to be made between automatic and inherent rounding. [...] The rounding [sc. of the q̇] in cíq̇k̇e is automatic only, and in this and similar cases I use a morphophonemic notation (cíq̇k̊e)" (p. 34). Thus, the phonemicization of the latter form requires the knowledge that the word is derived from the root /ciq̇/ 'dig', not /ciq̊/ 'red'. The correct interpretation of Kuipers' morphophonemic notation requires the application of the relevant rules on the part of the reader.

Indeed, one must be careful in reading his transcription. In the form /wk-xn-t-é́s/ (with a redundant stress mark) the initial resonant implies a following non-phonemic [u], which labializes the following stop, which labializes the following fricative, which labializes the following epenthetic schwa, which is automatic because the following resonant is in vocalic position and the preceding fricative is not of the same place of articulation as the resonant. The progressive labialization rule must be applied more than once before the schwa can be assigned its correct phonetic realization.

The choice between /k/ and /k̊/ cannot be made on the basis of morphological alternations in what is known in the Moscow school of phonology as the 'hyperphonemic situation'. Here Kuipers brings his phonemic transcription into line with the phonetic facts. "When of a morpheme with an automatically rounded consonant no corresponding form in a neutral surrounding is available, I write the consonant rounded, e.g. cuk̊ʷ" (p. 34). This solution (which is the one defended by Halle in Current trends I, p. 15) again demonstrates Kuipers' predilection for simplicity as the ultimate criterion of linguistic analysis. As a consequence of this approach, there is no strict separation of levels in his description.

Kuipers does not always remain faithful to the morphological principle, however. Though labialized /ʔ/ is not distinct from /w̥/, he writes /t-sw-sú́ʔt/ (with a redundant stress mark) "where the reduplication-syllable -sw- points to -sú́w̥t" (p. 34). This transcription is at variance with his treatment of the velar and uvular obstruents under the same conditions.

4. The most intricate problem of Shuswap phonemics is the status of the unstressed vowels. It is beyond doubt that schwa is phonemic (cf. p. 28). Yet Kuipers does not always write it, even in cases where it is not fully automatic. In particular, schwa is left out in prefixes and articles (p. 29f.), where it is unstable, so that here again morphological information is needed for a correct interpretation. It is also left out where the position of the epenthetic vowel is indeterminate (p. 29).

Kuipers writes /e/ for [ɛ] at the end of a word, e.g. /qé?ce/, and retains the /e/ in suffixed forms of such words, e.g. /qé?ce-s/, "though ...es sounds no different here from what is otherwise written ...əs" (p. 30). This is another instance of the principle that biuniqueness is sacrificed to the regularity of morphological rules. The solution is a bit surprising because /e/ is dropped before a suffix beginning with a vocalic resonant, even if the vowel is phonetically present, e.g. /x-tx̌°-éne/, /x-tx̌°-én-m/ [-énɛm]. The reason for the latter phonemicization is that the vowel is phonetically absent if the preceding consonant is of the same place of articulation as the following resonant, e.g. /x-tx̌-en-n-s/ [-énn̥s]. As a result of this decision, biuniqueness is preserved before a resonant.

Kuipers points out that final /e/ could be interpreted as a resonant /h/, and /e?/ as its glottalized counterpart /?/. He does not take this step because "not all unstressed occurrences of e? have such clear parallels with other resonants" (p. 30). Notice that Kuipers again abandons the morphological principle here and adopts a notation which is closer to the phonetic facts. The hesitation to eliminate unstressed /e/ is remarkable because the morphophonemic notation /?/ for [ɛ?] is preferred in the case of

initial /ʔC/ preceded by a consonantal clitic. Thus, the avoidance of an alternation /ʔ- ~ eʔ-/, which is in conformity with the morphological principle, leads to another violation of the biuniqueness condition.

5. Since /i/ and /u/ occur in stressed syllables only, they are in complementary distribution with the corresponding resonants. The possibility of identifying vowels and resonants was discussed by Kuipers on another occasion (p. 58 of his Squamish grammar) and is not taken up again. In the case of /i/ and /u/, the matter is of purely theoretical interest and does not further the insight into the structure of the language. Indeed, both the phonetics and the alternation patterns suggest the incorrectness of such an identification. The identification of unstressed /e/ with /h/, which Kuipers rejects on the grounds mentioned above, would seem to yield some additional regularity in the morphology because the truncation rule before a suffix beginning with a vocalic resonant could be dispensed with and the absence of telescoping (merger of two successive identical consonants) would be regular in view of the intervening /h/. Though this solution would be in conformity with the morphological principle of phonemicization, it increases the distance between the transcription and the phonetic facts.

This is in fact the central antinomy in the theoretical framework which Kuipers uses in his description. The heterogeneity of the arguments which are adduced in support of the chosen solution deprives the resulting phonemes of a unique theoretical interpretation. The uvular obstruents in /ciqm/ and /ciq̓/ point to a distinctive opposition. The one in /cíqk̓e/ points neither to the distinctive absence of labialization, nor even to the absence of phonetic labialization, but to the alternation with a non-

-labialized uvular obstruent. The labialization of the velar stop in /cuk̊/ reflects neither a distinctive opposition nor the alternation with a distinctively labialized stop but simply the presence of phonetic labialization. This approach presupposes that the phoneme "is to be regarded as a heuristic or pragmatic fiction, a mere terminological convenience in describing the phonological relations which obtain among the elements of a language", as Twaddell pointed out forty years ago (Readings in linguistics I, p. 68). The phonological relations which are reflected in the transcription are not always the same in individual cases and do not always hold between elements of the same linguistic level. The main advantage of the approach is that the notation can largely be accomodated to the linguistic pattern of the individual language.

6. It should be clear that the remarks made in this paper detract nothing from the merits of Kuipers' new publication. I have simply tried to characterize the theoretical background of his phonemic analysis. Indeed, the fact that the large amount of factual material presented in his book can easily be restated in terms of another theoretical framework according to one's personal taste only adds to the value of the description.

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