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Tones in Wakashan

In the summer of 1972 I spent two weeks in the village of Klemtu, B.C., where I studied the Heiltsuk language. During this period I collected a vocabulary of over 4000 words. My main informant was Mr. William Freeman. The investigation was financed by the Dutch Organization for the Advancement of Pure Research (Z.W.O.)

The Heiltsuk language, which belongs to the Northern (Kwakiutlic) branch of the Wakashan language family, is spoken in two exclusively Indian villages, Bella Bella and Klemtu, situated on islands opposite the Canadian Pacific coast. These villages came into being at the end of the 19th century, when the surviving members of the Heiltsuk (Héyɬzàqˀ) tribes gathered together. Today, various dialects of their language (Héyɬzàqlà) can still be distinguished. Part of the Klemtu population is Tsimshian.

The structure of the Heiltsuk language is largely similar to that of Kwakiutl. Though the language has been innovating in some respects, it also seems to have preserved a number of ancient characteristics. In this communication I shall discuss a few striking features of Heiltsuk phonetics.

Heiltsuk occlusives are plain (b, d, ƛ, ʒ, g, g̓, ḡ, ḡ̓), aspirated (p, t, ƛ̓, c, k, k̓, q, qˀ), or glottalized (p̓, t̓, ƛ̓, c̓, k̓, k̓ˀ, q̓, q̓ˀ). Both plain and, more rarely, glottalized occlusives have voiced allophones, but the voiceless variants are more frequent. Word-initially, glottalized occlusives are more frequent than aspirated ones, and aspirated occlusives are more frequent than plain ones. Laterals and velars are particularly frequent. The fricatives (ɬ, s, x, x̓, x̄, x̄ˀ) are voiceless. There is no labial fricative, cf. the old loan word sdúp from English stove. Palatals and velars are plain (g, k, k̓, x, ḡ, q, q̓, x̄) or labialized (gˀ, kˀ, k̓ˀ, xˀ, ḡˀ, qˀ, q̓ˀ, x̄ˀ). The labialized phonemes are distinct from clusters of plain phonemes and w, cf. e.g. x̄ísìḡálá 'the other side of the river', gásìḡálá 'this side of the river', m̓níḡwàlà '1 person (walking outside)', sk̓ágwálà '5 persons (walking outside)', múḡwàlà '4 persons (walking outside)', yútxʷàlà '3 persons (walking outside)', éykwá 'to win', qwáyú 'knife for scraping the inner bark of a tree'. The affricates (ʒ, c, c̓) are distinct from clusters of occlusive and fricative,

cf. e.g. tsá 'to push', ts7ít 'to push away', tc̓á 'to warm oneself at the stove'. The lateral occlusives are distinct from clusters of occlusive and l, cf. e.g. mátlá 'to fly', máχà 'to wave one's hand', máχlá 'to lead a person by the hand'. Heiltsuk resonants are plain (m, n, l, y, w) or glottalic (m̓, n̓, l̓, y̓, w̓). Apparently, glottalic resonants are not opposed to clusters of glottal stop and resonant. I write 7 for the glottal stop except before word-initial vowel, where it is automatic.

In contradistinction to Kwakiutl, where no consonant clusters occur at the beginning of a word, initial clusters are frequent in Heiltsuk, cf. e.g. χ̄sy̓á̓ɬáwt 'to pull a boat up a rocky shore', tq̓á 'octopus', tg̓ánm̓ 'human being', txtxní 'owl', ttxstú 'bulging eyes', qx̣á 'to have sexual intercourse', gklá 'not fit', kɬlá 'to be amazed', ɬx̄ɬq̓á̓cwá 'brains', tx̄ɬx̄χáqà 'to jump over s.th.'. These clusters have apparently come into existence by the loss of short vowels. This loss has also led to the existence of vowelless words, cf. e.g. ɬnx̄ 'native crab apple', ɬ̓ntx̄ 'snot', ɬl̀ 'dead', χxx̄s 'cross-piece of a canoe'. The latter word is χəxə̀x̄s in the neighbouring Haisla language. For the Klemtu word qàqs 'eye' most Bella Bella speakers have qqs. Instead of the Bella Bella word tpk̓ 'flash-light' Klemtu speakers use sbáyú, cf. spá 'to flash', tpá 'to press'. (Cf. also sgáyú 'spear' from ɬká 'to spear'. The suffix -k̓ is a passive nominalizing formative.) Medial clusters are also frequent, cf. e.g. χ̓úq̓qyá 'bald hair', àwx̄χxsy̓à7ísɬá 'to pack s.th. on one's back and carry it up to the woods'. Lateral clusters are characteristic of this language, cf. e.g. máχlá 'to lead a person by the hand', máɬlá 'to swim', màɬlá 'to stir', ɬl̓úyá 'still-born'. For word-final clusters cf. e.g. l̓àqx̣̓ 'sundried berries', λíqx̣̓ 'brave', díq̓x̣̓ 'deadfall', níkx̣̓ 'night'. (Such forms are frequent because -x̣̓ is an alternant of the suffix -k̓, cf. l̓àqá 'to spread berries on a surface', díq̓à 'to make a deadfall'.)

The most salient feature of Heiltsuk phonetics is the presence of phonemic pitch. Vowels and syllabic resonants are high (´) or low (`). Stress is automatic and falls on the first high-pitched syllable of a word, if any. The large majority of words contain at least one high-pitched syllable, but this is not necessarily so, cf. e.g. tx̄bìχànùg̓à 'I pretend'. The tone of a suffix depends not only on the suffix itself but also on the preceding stem, and, what is more, not only on the pitch contour of the preceding stem.

The verbs wáxwàxà 'to smoke', mísmìsà 'to eat meat', and myáxmyàkà 'to eat salmon' are on the surface identical formations. But they have a different influence on the tone of the personal suffixes: wáxwàxánúgà 'I smoke' and mísmìsánúgà 'I eat meat' versus myáxmyàkànúgà 'I eat salmon'. The future tense suffix -χ-, which precedes the personal suffixes, lowers the tone of the preceding syllable: wáxwàxàχnúgà 'I shall smoke' and mísmìsàχnúgà 'I shall eat meat' versus myáxmyàkàχnùgà 'I shall eat salmon'. Cf. also wáxwàxàχńc 'we (incl.) shall smoke' and mísmìsàχńc 'we (incl.) shall eat meat' versus myáxmyàkàχńc 'we (incl.) shall eat salmon'. Another example of pitch lowering before the suffix -χ- is èyxbíχàχnúgà 'I shall pretend to be good' as opposed to èyxbíχánúgà 'I pretend to be good' (cf. éyk 'good'). On the other hand, the pitch of a suffix also depends on the suffix itself: dúqlá 'to see, look' versus dúgà 'to see, visit'.

The interrelation between the pitch contour of a word and the phonemic shape of its constituent parts is clearly observable in the case of numerals. Heiltsuk, like other languages of the North-West Pacific Coast, uses different sets of numerals in counting objects of different kinds, at least in counting from one to six. There are also corresponding forms for 'many'. I have registered 42 sets of numerals. The number is expressed by the stem, and the kind of object counted by the suffix, e.g. mńcàx, màcàx, yúdùcàx, múcàx, qéynámcàx '1, 2, 3, 4, many (sticks, trees, logs, bottles, cigarettes, fishing nets)', mrχá, màɬ7àχá, yútχà, múwíχà, qéynámχà '1, 2, 3, 4, many (dishes, pots, cups, glasses)', mnsá, màɬsá, yútsà, múwísà, qéynámsà '1, 2, 3, 4, many (flat objects, halibuts, sheets of paper)'. The stem of '1' is mn- (22x) or u- (18x), depending on the suffix, with a preference for mn- in counting objects and for u- in counting events. The proper tone of the stem is revealed by the forms containing the vowelless suffix -s: mníxs, màɬxs, yútxs, múxs, skàxs, qàχáxs '1, 2, 3, 4, 5, 6 persons (in a boat)'. The stem '4' lowers the tone of all following syllables, cf. e.g. úpínixlà, màɬpínixlà, yútxpínixlà, múpìnixlà '1, 2, 3, 4 days', úpnálàχlà, màɬpnálàχlà, yútxpnálàχlà, múpnàlàχlà '1st, 2nd, 3rd, 4th day of the month', mńcàqlá, màcàqlá, yúdùcàqlá, múcàqlà '1, 2, 3, 4 boats (travelling)', úpnùstíwá, màɬpnùstíwá, yútxpnùstíwá, múpnùstìwà '1, 2, 3, 4 trips (in the mountains)'. Some suffixes have the same tone as the stem, with the exception of the low pitch after '4': mnsgms, màsms, yútxsms, músgms '1, 2, 3, 4 houses', úpnx, màɬpnx, yútxpnx, múpnx '1, 2, 3, 4 fathoms',

úp̓ńs, màɬp̓ǹs, yútxp̓ńs, múp̓ǹs ‘1st, 2nd, 3rd, 4th day of the week (i.e., Monday, Tuesday, Wednesday, Thursday)’. Other suffixes are marked by a tone opposite to that of the stem: m̓ńx̄7ǹx̄, màɬ7ńx̄, yútx̓7ǹx̄, múx̄7ǹx̄ ‘1, 2, 3, 4 years’, m̓ńsgm̀, màsḿ, yútx̓sm̀, músgm̀ ‘1, 2, 3, 4 dollars’, m̓ník̓ɬbà, màɬk̓ɬbá, yútx̓ɬbà, múk̓ɬbà, q̓éyk̓ɬbà ‘1, 2, 3, 4, many cloths’. Some suffixes change the tone of ‘1’ into low pitch, like -x̄χa and -x̄sa above, whereas others change the tone of ‘2’ into high pitch, cf. máɬwàlà ‘2 persons (walking outside)’. The latter suffix has low pitch after ‘1’, ‘2’, ‘3’, ‘4’, but high pitch after ‘5’ and ‘6’: sk̓ágwálà, q̓àχ̓ágwálà.

As is clear from the foregoing examples, the phonemic shape of a word form is not always predictable on the basis of its constituent morphemes, cf. e.g. màɬ7àx̄χá ‘2 -x̄χa’ versus màɬx̄sá ‘2 -x̄sa’ mentioned above. Moreover, the quality of the vowels may depend on their pitch. High ey and aw often correspond to low i and u, respectively: m̓ník̓ɬbiɬ, màɬk̓ɬbà7éyɬ, yútx̓ɬbéyɬ, múk̓ɬbiɬ, q̓éyk̓ɬbéyɬ ‘1, 2, 3, 4, many blankets’, úp̓ǹkstéys, màɬp̓ńkstéys, yútxp̓ǹkstéys, múp̓ǹkstìs, màɬà7áwsp̓ǹkstéys, yútx̓áwsp̓ǹkstìs ‘1, 2, 3, 4, 7, 8 hundred’, úp̓ǹstáwt, màɬp̓ǹstáwt, yútxp̓ǹstáwt, múp̓ǹstùt, q̓éynámp̓ǹstùt ‘1, 2, 3, 4, many times setting a fish net’, m̓ǹx̄χáwɬ, màɬ7àx̄χáwɬ, yútx̄χáwɬ, múwíx̄χùɬ ‘1, 2, 3, 4 times a glass or cup’, úp̓ǹsx̄χéys, màɬp̓ńsx̄χéys, yútxp̓ǹsx̄χéys, múp̓ǹsx̄χìs, q̓éynámp̓ǹsx̄χìs ‘1, 2, 3, 4, many trips (behind the village)’. However, this is not always so, cf. èy in m̓ńc̓àqéylá, màc̓àqéylá, yúdùc̓àqéylá, múc̓àqèylà ‘1, 2, 3, 4 o'clock’. Cf. also í next to éy in m̓ní7iɬ, màl̓íɬ, yúdùẃìɬ, múẃìɬ, sk̓à7éyɬ, q̓àχ̓à7éyɬ, q̓à7éyɬ ‘1, 2, 3, 4, 5, 6, many persons (in the house)’.

The same complicated situation is encountered in the pitch analysis of demonstrative ans possessive suffixes. The suffix -á ‘this’ lowers the tone of a monosyllabic stem and causes a preceding aspirated consonant to lose its aspiration: g̓úk̓ ‘house’. g̓ùg̓áx̄ ‘this house’, qs g̓ùg̓á ‘this house of mine’, g̓ùg̓áws ‘this house of yours’, g̓ùg̓ásx̄̓ ‘this house of his (who is here)’, g̓ùg̓ásic ‘this house of his (who is away)’. The suffix -à ‘that’ has neither of these effects: g̓úk̓àx̄ ‘that house’, qs g̓úk̓àx̄ ‘my house’, qs g̓úk̓àc ‘id. (invisible)’, g̓úk̓àqs ‘your house’, qs g̓úk̓à ‘that house of mine’, g̓úk̓àcx̄̓ ‘that (invisible) house of his (who is here)’. However, the latter suffix has high pitch before certain other suffixes, cf. g̓úk̓ási(c) ‘his/her house’, g̓úk̓áws ‘that house of yours’, g̓úk̓áx̄sx̄̓ ‘that house of his (who is here)’. Cf. also g̓úk̓àx̄sic ‘that house

of his (who is away)', gúkàcús 'that (invisible) house of yours'. All suffixes have low pitch after certain stems, e.g. gúkáxtìs 'beach-house', cf. gs gúkáxtìsà 'my beach-house', gúkáxtìsùs 'your beach-house', gúkáxtìsàsì 'his beach-house'.

The unpredictable alternations in the tone pattern and the absence of tone in the neighbouring non-Wakashan languages (Tsimshian and Bella Coola) suggest that Heiltsuk pitch goes back to the proto-Wakashan period and has been lost in the other languages of the family. I have noted the absence of distinctive tone in the dialect of Rivers Inlet, which is transitional between Bella Bella and Kwakiutl and very close to Haisla. These observations show that typological and genealogical generalizations are unwarranted before the material of the surviving dialects has been properly investigated.

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