

Anna Maria Hari, An Investigation of the Tones of Lhasa Tibetan, Language Data, Asian-Pacific Series No 13, SIL, Huntington Beach, California, 1979 ("published 1980"), x+232p. Reviewed by M. Mazaudon (CNRS, Paris).

Anna Maria Hari's book, An Investigation of the Tones of Lhasa Tibetan, is the result of 5 months of field work with a Tibetan informant in Kathmandu, but rests on a much longer familiarity (8 years) with related languages in Nepal. These are Tamang and Thakali, belonging to a subgroup of Tibeto-Burman closely related to Tibetan (Shafer's Gurung Branch), and Kagate, a Tibetan dialect (Shafer's Central Bodish Unit, Bodish Branch). The main interest of the book lies in two claims which will be discussed in detail further on: first, that Lhasa Tibetan has more tonal contrasts than had hitherto been recognized, and second that the domain of tonal contrast is wider than the syllable.

The book is composed of three chapters and two appendices. Chapter 1 gives an overview of the segmental phonology of Lhasa Tibetan as a basis for the tonal study in chapters 2 and 3. Chapter 2 presents the phonetic data, and chapter 3 the proposed interpretation. The first appendix deals with the phenomenon of "vowel height approximation", and the second is a phonemically transcribed vocabulary. Notes, a bibliography, and a short index of subjects, authors and languages end the volume.

The description of the consonant system is not significantly different from that of Chang and Shefts 1964. The main point to be noted is the interpretation of the feature of final glottality as a consonantal phoneme transcribed /ʔ/. Word-finally, this feature alternates with or is accompanied by a falling pitch pattern. While Hari has retained the segmental variant of the feature as basic, Chang and Shefts have retained its melodic realization and interpreted the feature as a falling tone occurring on the end of the word. Phonetic [ʔ] (with its associated pitch fall) is also an occasional realization of final /k/, /p/ and /m/, but Hari distinguishes a phonemic /ʔ/ from /k/, /p/, and /m/ on morphophonemic grounds. Word-medially, /ʔ/ is realized as glottal constriction according to Hari, while Chang and Shefts do not record it in that context. After a nasal consonant or a nasalized vowel Hari does not record /ʔ/, while Chang and Shefts do record the falling tone.

Hari retains eight vowels as phonemic against Chang and Shefts' twelve. On distributional grounds she separates them into five "primary vowels" /i, e, a, o, u/ and three "secondary vowels" /ɛ, ɤ, y/. Phonetic shades are accounted for by the process of vowel height approximation. The secondary vowels can only occur in the first syllable of a tonal morpheme. They carry no length contrast and do not occur in closed syllables except in front of /ʔ/ and /n/ (realized as vowel nasality in most contexts), which is in line with their historical origin in old *CVC syllables with final dentals. Their absence from toneless affixes is also consistent with the CV structure of these affixes in other modern

Polish languages. In view of a tonal analysis, the most important point to consider is the treatment of length, since this feature, like final glottality, has variously been considered as segmental or tonal by different authors. Hari notes that it is an elusive feature, for which a contrast is well established only in open monosyllables. In that context long vowels contrast both with short vowels and with glottalized vowels (no length contrast exists on glottalized vowels). In first syllables of disyllabic morphemes (pp. 17 and 44), and of compounds (p.116) the contrast is established between short vowels on one side and long or glottalized vowels taken together on the other. But the contrast between long vowels and glottalized vowels seems to be restricted to the vowels /a/ and /o/ (and maybe /u/) followed by a continuant as the initial of the second syllable. Before a stop, length is replaced by glottalization for all vowels : e.g. /'maah/ 'butter' [ma:], but /'maah-pa?/ 'butter and flour' [ma?pa?] (p.117). For i and e the neutralization between long vowel and glottalized vowel seems general in first syllables. For "assimilating suffixes" and second syllables of morphemes (p.45) the contrast is illustrated only by one or two uncertain examples, and only on the vowel /a/. On second members of compound words the contrast exists, but as we will see below, this may be just one more argument against the interpretation of these entities as single words. Nasal vowels and vowels in closed syllables do not carry the length contrast (p. 48).

The number of suprasegmental contrasts.

In order to compare and evaluate descriptions of the suprasegmental system of Central Tibetan we must consider together 4 features : height and voice quality constituting one feature which we may call 'register', pitch pattern or melody constituting the second, final glottality the third, and vowel length the fourth. The first, register, is the only one which all authors agree in considering as tonal or suprasegmental; the others have been variously drawn into the suprasegmental system or pushed back into the segmental system. Hu Tan 1982 gives a clear comparative summary of pre-Hari scientific studies. All authors, including Hari, agree on a register feature with two terms, high-clear vs low-breathy. All authors agree on the existence of a two-term vowel length contrast on open syllables and on its absence preceding final glottality. On the interpretation, they disagree. Some authors like Chao or Sprigg retain only the first feature, register, as tonal. The majority take the glottal feature as suprasegmental, yielding a four-tone system (two glottal tones and two open tones). According to Chang and Shefts, who take the glottal syllables as long, this system is fully manifested on syllables with long vowels, and is reduced to a two-tone system on short vowels. The Central Institute for National Minorities of Peking takes the glottal-ending syllables as short, and thus has a four-tone system on syllables with short vowels, reduced to a two-tone system on long vowels. Phonetically, syllables with final glottality seem sufficiently intermediate in length to allow both interpretations. Other authors (e.g. the Chinese Academy of Social Sciences) take the glottal feature out of the tonal system and into the consonant

system, and consider length as a tonal feature. This again yields a four-tone system (two short tones and two long tones), but one which is fully manifested on open syllables, and is reduced to two tones on glottal-ended syllables. If we consider the possible combinations of features 1, 3 and 4 globally, as Hu Tan does, we find six possible suprasegmental patterns on syllables which do not end in an oral or a nasal stop: high short, high long, high glottalized, low short, low long, low glottalized. Simultaneous melodic features are associated with each pattern: high short is falling, high glottalized falls more, high long is level, low short rises slightly, low long rises more, low glottalized rises and falls. Syllables ending in an oral stop have neither the length contrast nor the glottalization contrast. Syllables ending in a nasal do not have the length contrast.

Note that in all the preceding analyses, we have not yet used the second feature, melody, as an independent feature. This is Hari's contribution. She adds a binary feature, "moving contour" vs "basically level contour", which multiplies by two the number of possible suprasegmental patterns on all syllable types except nasal-ended. So on CV syllables we get twelve possible combinations of the four features mentioned above instead of Hu Tan's six, and on CVC syllables we get four instead of two. In the high register the moving contour is falling, and in the low register rising. This contrast, which has not been noted by any previous author, is exemplified by sets of minimal or quasi-minimal pairs of words listed on pp. 72-84 for monosyllabic morphemes. For instance, in the low register, the words 'tea' (WT ja), 'head' (WT mgo), and 'arrow' (WT mda), and the words 'bird' (WT bya), 'door' (WT sgo), and 'message' (WT brda), which are considered as homophonous two by two by other authors, are classified by Hari as respectively low, short, non-glottalized and "basically level" (i.e. rising slightly) for the first three, and low, short, non-glottalized and "rising" for the other three. Nasal-ending syllables are the only ones where the number of suprasegmental classes in Hari is the same as in previous authors. On CVN syllables, Chang and Shefts or Hu Tan note four tones (produced by the intersection of the two-term register contrast and the two-term final glottality contrast), and Hari notes her four contours but has no final glottals on these syllables. Thus the interpretation is different, but the phonetic observation should coincide. Indeed Hari claims that the lexical correspondence between her recording and Chang and Shefts is good for the high register (her contour 3 = C&S's high-falling tone, and her contour 4 = their high-high tone), but for the low register she notes a low rate of agreement (p.144). Hari transcribes the moving contour by an apostrophe in front of the word, e.g. /'koh/ 'door', and leaves the basically level contour unmarked, e.g. /koh/ 'head'. In the lexicon she wisely used a redundant transcription: first the combination of an -h following the vowel for low register vs no -h for high register, with an apostrophe preceding the syllable for moving contour vs no apostrophe for level contour, and secondly a number from 1 to 4 in front of the morpheme indicating each combination of the two features.

The data.

The provision in the book of a sizeable vocabulary where this contrast is transcribed gives the reader the possibility of rechecking the data for himself. The need for checking the data arises from the fact that Hari worked for a relatively short period of time mostly with a single informant whose life story, as related by Hari in footnote 1, might cast doubt on her reliability as a source of detailed information on her language.

The informant was born in Eastern Tibet (Amdo-Khamba district). During her childhood and adolescence, she moved to Lhasa, India, and Sweden, always in company of other Tibetans. She then married the son of a Lhasa business family and settled in a joint family arrangement with her in-laws in Kathmandu. She had lived there for seven years when the study began. It is this last period of her life which Hari trusts to have insured the authenticity of her Lhasa dialect. Since the dialect of Amdo is generally considered to be devoid of tones, the family origin of the informant is unfortunate for a tonal study. She obviously has had the opportunity to live with Tibetans from all over Tibet and to use the Central Tibetan koine based on Lhasa Tibetan, and she may have learned the Lhasa dialect perfectly, but a fine point of phonology would be better established with the typical monolingual (mono-dialectal) native informant. Such criticism should be tempered by the observation that, with the political upheavals of the area for the past forty years, an unspoilt informant of any Tibetan dialect is very hard to come by. This can be compensated for by using several informants. Hari's book is, in this respect, the first step of a study which should be continued.

Checking the data will not be a trivial matter. Hari says that the contour contrast is difficult to hear and that "native speakers of the present day language admittedly also have some difficulties in identifying" it. This observation will come as no surprise for anyone having some experience of the tones of Himalayan languages. Tones in this area are melodic and phonetically rather close together. Their spreading over the several syllables of a morpheme or a word, as we will see later, does not help either. For Lhasa Tibetan previous authors have already pointed out that the melodic realization of final glottality is not always clear. With Hari's description, if we take into account the melodic effect of the abstract feature "glottality" we have to distinguish between three falling tones and a level tone on the high register, and two rising-falling tones, a slightly rising tone and a rising tone on the low register. Given this phonetic closeness, we could have expected the author to report the use of some instrumental help, as help or as proof, and to relate the results of discrimination tests with her informant on the few existing minimal pairs.

The interpretation.

In her analysis of the data, Hari has chosen the same line as the earliest study, by Chao : to consider both vowel length and final glottality as elements respectively of the vowel and