Tone System in Itoman

In this paper, I examine the tone system of Itoman, an endangered language spoken in southern Okinawa. Most speakers of Itoman are over 60 and are bilingual in Japanese.

There are four studies that investigate the tone system of Itoman: Hattori (1959), Oshiro (1963), Hirayama et al. (1966), and Nakasone (ms, maintained in the University of the Ryukyus). In his study, Hattori (1959: 279) concludes that all the words show the same tone pattern. Oshiro (1963) argues that the pattern Hattori found is limited to the fishermen's dialect. For non-fishermen, Oshiro finds two patterns: (1) MM (or HH) and (2) MH. He also mentions that he himself (as a speaker of the non-fishermen variety) tends to pronounce words with MM as HL/ML. In addition, he points out that after adding a nominative clitic =*ga* to the words with the MH pattern, the tone pattern of such words becomes ML=H. Hirayama et al. (1966) investigate tone patterns of five native speakers. (It is unclear whether their study targeted the fishermen or the non-fishermen variety.) They find three tone patterns: HL, LH, and HH. Although their observation more or less corresponds to Oshiro's analysis, there is a crucial difference between the two. Both analayze the tone of the word *hai* 'needle' differently: MH in Oshiro's analysis vs. HH in Hirayama et al.'s analysis.

There are certain limitations in the previous studies. First, the studies disagree in their accounts, leaving uncertainty about which analysis (if any) is correct. Second, the necessity of positing a mid-tone is unclear. Third, the relationship between the phonological analysis and the phonetic realization of the tones is not explicit in previous accounts.

To solve these issues, I investigated the tone patterns in Itoman. This study is based on both impressionistic and acoustic work. My data for this study were collected during the three field work trips to Okinawa between 2007 and 2010. Nine subjects (5 males and 4 females) participated in this project; all subjects were bilingual in Japanese and Itoman.

The number of target words was approximately 400, which include the Classified Vocabulary suggested by Kindaichi and Wada (presented in *Kokugogaku Daijiten*) for the comparison of Japanese languages, as well as additional indigenous words with which the subjects were familiar. Each word was pronounced and recorded in the following conditions: (i) as a bare form, (ii) with a nominative case clitic =*ga*, (iii) with a topic marker =*ya*, and (iv) with a dative case clitic =*Nkai*. In this paper, I focus on the first two contexts.

To find out the impressionistic tone patterns, I asked each subject to pronounce bimoraic, trimoraic, and tetramoraic words. Other subjects and I assessed the patterns used by the subject. I pronounced the same token with several tone patterns and the subjects chose the pattern they felt was closest to their pronunciation.

The following is a summary of results. In bimoraic words, the bare forms contrast HL (e.g. *kaa* 'well') and HH (e.g *naa* 'rope' and *hana* 'flower') tone patterns. In adding =*ga*, the words with HL show HL=L (*kaa=ga* 'well=NOM'). The words with HH are divided into two groups: one consists of words with HL=H (*naa=ga* 'rope=NOM'), and the other with words with HH=H (*hana=ga* 'flower=NOM').

In trimoraic words, the bare forms present HLH (e.g. *keena* 'arm') and HHH (e.g. *haraka* 'nudity' and *hagama* 'kettle'). In adding =*ga* to the word with HLH, the pattern becomes HHL=H (*keena=ga* 'arm=NOM'). Like bimoraic words, the words with HHH are divided into two groups: one containing words with HHL=H (*haraka=ga* 'nudity=NOM'), and the other words with HHH=H (*hagama=ga* 'kettle=NOM').

In tetramoraic words, the bare forms demonstrate HHLL (e.g. *abasaa* 'pufferfish') and

HHHH (e.g. *taaree* 'tub' and *akanaa* 'two spot red snapper'). The words with the former pattern demonstrate HHLL=L (*abasaa=ga* 'pufferfish=NOM') when adding *=ga*. Again, the words with HHHH are divided into two groups: one is the words with HHHL=H (*taaree=ga* 'tub=NOM'), and the other is the words with HHHH=H (*akanaa=ga* 'two spot red snapper=NOM').

To account for these surface tone patterns, I propose the following analysis:

1. The default tone is H. Every word begins with an H boundary tone.
2. Itoman has two types of accents (represented as [*1] and [*2]); accent [*1] is HL, while accent [*2] is LH. Both accents are underlying associated with particular vowel of the words.
3. Words are classified into three categories: (i) words with accent [*1], (ii) words with accent [*2], and (iii) words with no accent.
4. Toneless moras receive tones through rightward spreading.
5. The difference between words with accent [*2] and words with no accent emerges when *=ga* is added to the root.
6. When adding *=ga*, accent [*2] moves to the penultimate mora of the stem; the accent [*1] stays in its original place.

The proposed analysis based on the autosegmental approach can account for the tone patterns of Itoman, as demonstrated as follows:
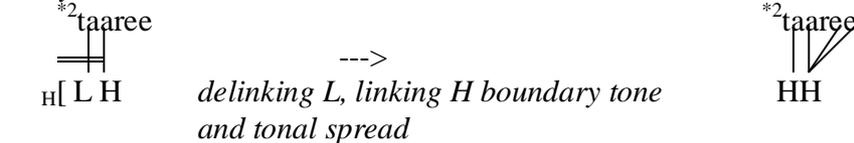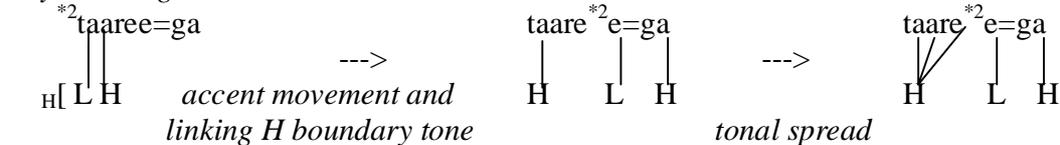
a. *a[*1]basaa* 'pufferfish'
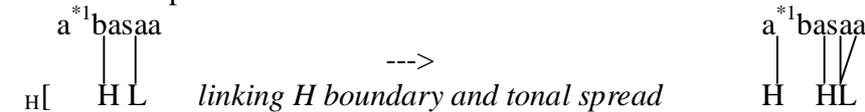
b. *a[*1]basaa=ga* 'pufferfish=NOM'
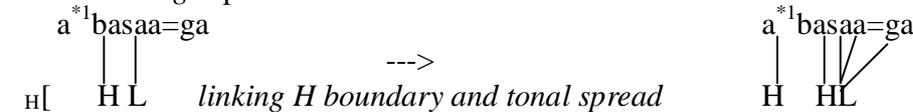
c. *[*2]yanmee* 'tub'

d. *yanmee=ga* 'tub=NOM'

References

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