

MOOD SUFFIX AND QUESTION INTONATION IN RYUKYUAN

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ABSTRACT

Manifestation of the question intonation was investigated for Ryukyuan which is an endangered language. Ryukyuan is related to Japanese and is known to preserve a number of linguistic features that were present in 6 to 8th century Japanese. Ryukyuan is typologically interesting since the mood suffix takes the role of intonation. Though a language with such a mood suffix has been reported in linguistic literature, studies of intonation in such languages are rare. Ryukyuan has basically the same intonation for all the sentence types and a classical dichotomy of sentence final rising vs. falling intonation for interrogatives vs. declaratives does not apply to this language. Instead, the predicate verb ends with its accent type, i.e. falling or flat, unless the accent is deleted for focus manifestation.

Keywords: mood suffix, accent, yes-no question, wh-question, focus question

1. INTRODUCTION

Ryukyuan (also called Ryukyu dialect of Japanese) is spoken on the islands of Ryukyu, and genetically more close to older Japanese than to Modern Japanese. Ryukyuan employs a set of mood suffixes to indicate sentence types and it is an obligatory part of verb formation. No such mood suffixes exist in Japanese. Thus a verb is composed of V-stem + tense suffix in Japanese while in Ryukyuan, a verb is composed of V-stem + tense suffix + mood suffix. Since mood suffix in Ryukyuan has a function of specifying sentence type, and since sentence type is usually signaled by intonation in Tokyo Japanese, the two languages may differ in the manifestations of intonation. This paper compares question intonation in the Shuri Ryukyuan which is considered as the standard dialect for Ryukyuan just like Tokyo dialect is the standard for Japanese. Data was obtained from fieldwork between 2008-2010. In addition, even the recordings of Database [5] are analysed. In the present paper, intonation is defined as the fundamental frequency (henceforth F0) of an entire

utterance and accentual phrase is defined as proposed in Pierrehumbert and Beckman [4].

2. MOOD SUFFIX IN SHURI RRYUKYUAN

In Shuri Ryukyuan, not only the difference between declarative and interrogative moods, but also yes-no question, wh-question, and emphatic/focus question are differentiated by the mood suffix. Below is the summary of the mood suffixes in Shuri Ryukyuan presented in Miyara [1].

1. Declarative mood

- +*n/sa* Indicative
- +*ru* Non-indicative

2. Interrogative mood

- +*mi* Yes-no question
- +*ga* Wh-question
- +*ra* Focus/emphatic question

(1) Declaratives

- i) *Chiyusa*. ‘(I) wear it’
- ii) *Iyaaga du chiyuru*. ‘You (emph.) wear it’

(2) Interrogatives

- i) *Chiyumi?* ‘Do you wear it?’
- ii) *Nuu chiyuga?* ‘What do you wear?’
- iii) *Nuuga chiyura?* ‘What (emph.) do you wear?’

In contrast, the difference between declaratives and interrogatives in speech is marked by sentence final rising vs. falling intonation with or without the question particle *ka/no* in Tokyo Japanese. Note the emphatic/focus question shown in iii) above has disappeared in Japanese and no equivalence is found in modern Japanese.

3. YES-NO QUESTION

3.1. Verb in isolation form

Both Shuri Ryukyuan and Tokyo Japanese have two accent types that are traditionally called *falling* and *flat* (they are also referred to as ‘accented’ and ‘unaccented’ respectively by some linguists). In this paper, the falling accent is denoted as (1) and the flat accent as (0) wherever necessary. The exact phonetic realization of the two accent types in Shuri Ryukyuan were recently compared with

those in Tokyo Japanese [3]. Note accent types correspond reversely in the two languages, i.e. a word with falling accent in Shuri Ryukyuan is with flat accent in Tokyo Japanese and vice versa.

3.1.1. Word with falling accent

Figures 1 and 2 show the F0 contours for declarative vs. yes-no question in the two languages for words with falling accent. In Shuri Ryukyuan (Figure 1), both the declarative and interrogative utterances have basically the same intonation manifesting its falling accent and there is no additional terminal intonation.

In contrast, the declarative and interrogative utterances in Tokyo Japanese differ in the utterance final intonation, one rising for interrogative and the other falling for declarative (Figure 2). Note in Shuri Ryukyuan and Tokyo Japanese, the accent becomes reverse, i.e. a falling accent becomes a flat accent in the other language.

Figure 1: F0 for *nuimi* ‘do you ride?’ (thick dot) vs. *nuisa* ‘I ride’ in Shuri Ryukyuan.

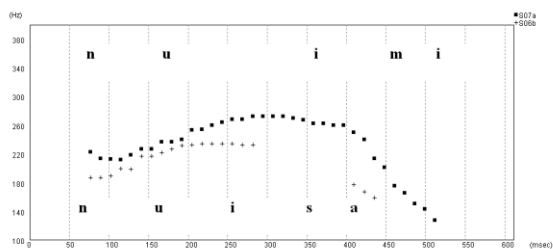
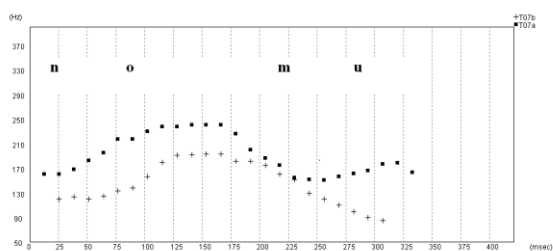


Figure 2: F0 for *nomu*? ‘(Do you) drink?’ (hick dot) vs. *nomu* ‘(yes I) drink.’ (+) in Tokyo Japanese. Note Tokyo Japanese has a reverse accent pattern of Shuri Ryukyuan, so ‘drink’ has a falling accent.



3.1.2. Word with flat accent

Figures 3 and 4 show the F0 contours for declarative vs. yes-no question in the two languages for words with flat accent. As for Shuri Ryukyuan (Figure 3) the two F0 contours are virtually the same. On the other hand, for the Tokyo Japanese, the two F0 contours are differentiated by the terminal F0 rise vs. fall in the same manner as in Figure 2.

Figure 3: F0 for *numumi*? ‘(Do you) drink?’ (thick dot) vs. *numusa* ‘(yes I) drink.’ (+) in Shuri dialect.

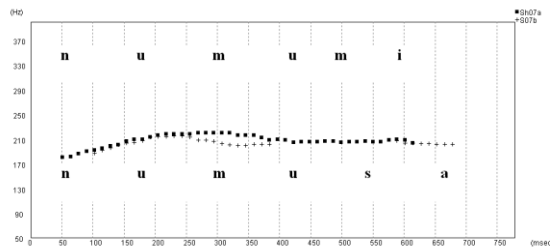
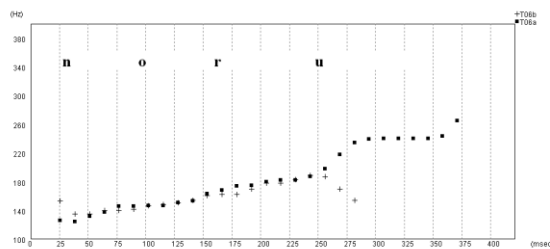


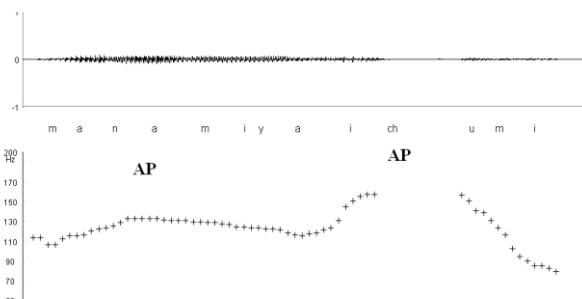
Figure 4: F0 for *noru*? ‘(Do you) ride?’ (thick dot) *noru* vs ‘(yes I) ride’ in Tokyo Japanese. Note Tokyo Japanese has a reverse accent pattern of Shuri Ryukyuan, so ‘ride’ has a flat accent.



3.2. Verb in a sentence context

Since both Ryukyuan and Japanese are SOV languages in which the predicate verb appears at the end of the sentence, the sentence final intonation observed in a verb isolation form in 3.1 appears at the end of the sentence as well unless the accent of the verb is deleted (cf. Wh- and focus-question below). Figure 5 shows a yes-no question that ends with a predicate verb with falling accent in Shuri Japanese. The same type of F0 contour observed in Figure 1, i.e. in word isolation form for a word with a falling accent, is observed in the second accentual phrase ‘icumi’ for which the mood suffix *+mi* for yes-no question appears.

Figure 5: F0 for *Manamiga(0) icumi(1)?* ‘Is Manami going?’.



3.3. Pitch register and question intonation

The previous sections have focused on the sentence final intonation for which Shuri Ryukyuan and Tokyo Japanese show fundamentally different manifestations. However, there is an additional F0 feature that is constantly manifested for interrogatives for both Shuri Ryukyuan and Tokyo Japanese. In Figures 1 and 2 where the intonation of the words is shown with a falling accent, it is also shown that interrogatives are produced at a higher pitch register than their counterpart declaratives.

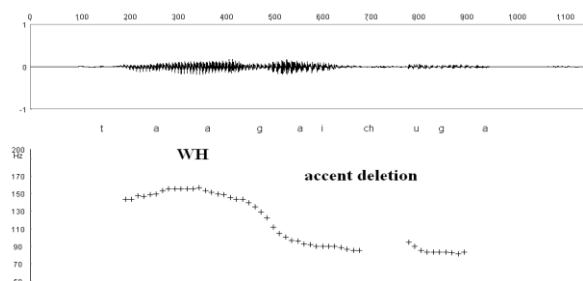
Such difference in pitch register was found to be one of the significant differences between declaratives and interrogatives for Tokyo Japanese [2]. However, whether the higher pitch register is manifested only for the words with falling accent or even with flat accent is yet an unsolved issue.

4. WH-QUESTION

4.1. Simple sentence

Figure 6 shows the F0 contour for *taaga(0) ichuga(1)?* ‘who is going?’ in Shuri Ryukyuan in which the mood suffix of the predicate verb becomes *+ga* to indicate it is a wh-question. The utterance is produced as a single accentual phrase with a single initial F0 rise for *taaga* and the falling accent of the second phrase *ichuga* is deleted. In a simple wh-question question of this type, the accent of the verb was found to be deleted completely. This means regardless of the accent type, i.e. falling or flat, the sentence ends with a flat level pitch in a low frequency region. The same manifestation is found even for Tokyo Japanese except that there is a final rise for question intonation.

Figure 6: F0 for *taaga ichuga?*. ‘Who is going?’ in Shuri Japanese.



4.2. Complicated sentence

However, compare the following two sentences.

- (1) *Taaga(1) ichunde(1) manamiya(0) ichooga(1)?* ‘Does Manami say who is going?’
- (2) *Manamiga(0) ichunde(1) taaga(1) ichooga(1)?* ‘Who says Manami is going?’

Note in both sentences, the final verb *ichooga(1)* contains the mood suffix *+ga* for wh-question. However, the deletion of the accent occurs only for the verb that follows immediately the wh-word regardless of the mood suffix. In (1) it is the accent of *ichunde(1)* that is deleted while in (2) it is the accent of *ichooga(1)* that is deleted.

Figure 7: F0 for *Taaga ichunde manamiya ichooga?* ‘Does Manami say who is going?’.

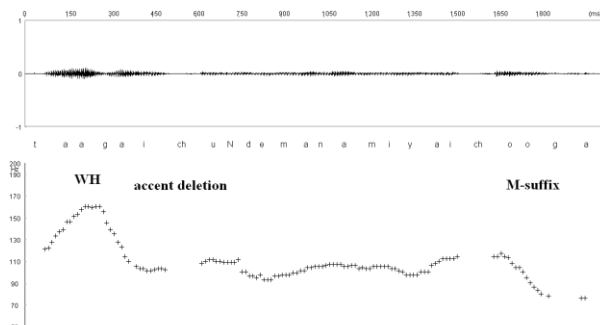
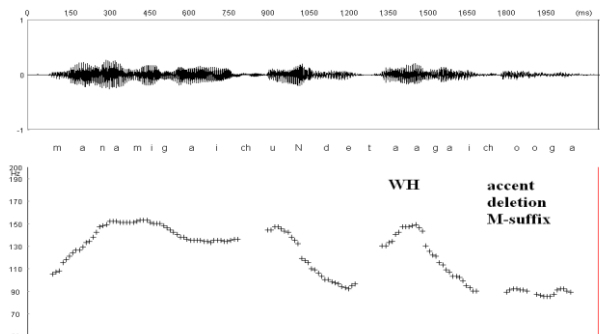


Figure 8: F0 for *Manamiga ichunde taaga ichooga?* ‘Who says Manami is going?’.



Examination of Figures 7 and 8 reveals that it is only the accent of the verb that immediately follows ‘who’ that is deleted. The accent of the verb with the mood suffix *+ga* is deleted only when it follows directly the wh- word.

5. FOCUS/EMPHATIC QUESTION

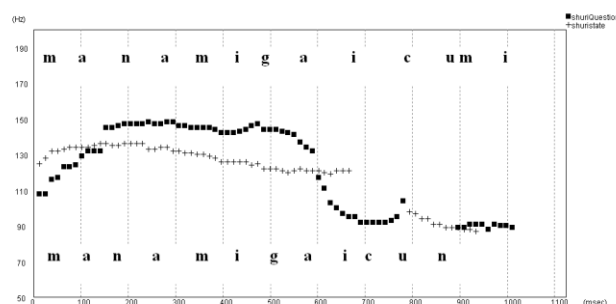
Figure 9 shows F0 contours for two sentences in which Manami (girl’s name) is focused.

- (1) *Manamiga(0) ichun(1)* ‘Manami is going’
- (2) *Manamiga(0) ichumi(1)* ‘Is Manami going?’.

In both sentences, the falling accent of the predicate verb *ichun/ichumi* is deleted and the entire utterance is produced as a single accentual

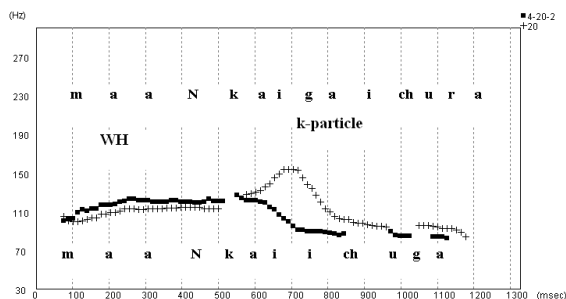
phrase. In the case of interrogative, however, the entire pitch register during Manami is produced at a higher pitch register than the declarative utterance. This is an additional token that speaks for the argument presented in section 3.4.

Figure 9: F0 for *Manamiga(0) ichun(1)* ‘Manami is going’ vs. *Manamiga(0) ichumi(1)* ‘Is Manami going?’ (thick dot). In both sentences ‘Manami’ is focused.



In Figures 10, a wh-question is compared with an emphatic wh-question for Shuri Japanese. In the former, the mood suffix *+ga* appears, while for the latter, it changes to *+ra*. In addition, in the latter sentence, the *kakari* particle *ga* for emphasis is inserted after *maankai* ‘to where’.

Figure 10: F0 for *Maankai ichuga* ‘where are you going?’ (thick dot) vs. *Maankaiga ichura?* ‘Where the hell are you going?’.



In both sentences, the F0 corresponding to the wh-word is manifested at a higher pitch range while the falling accent of the sentence final predicate verb *ichu-* is deleted and manifested at a low pitch level. For the emphasized sentences, the particles that precede the *kakari* particle, i.e., *kai* respectively, is emphasized and manifested at a higher pitch level. This form of emphasis with the *kakari* particle (called *kakari musubi*) had existed in the mainland Japanese language up until the 13th century, but disappeared thereafter. As such, there is no equivalence in Tokyo Japanese.

6. DISCUSSION

A study of intonation in languages with mood suffix to indicate sentence type is rare. In this paper, intonation of Ryukyuan, an endangered language that employs a set of mood suffixes was explored. It was shown that a classical dichotomy of falling vs. rising sentence final intonation for declaratives vs. interrogatives respectively can not be applied to this language. Unless accent is deleted in the case of wh-question or focus, the intonation of a given sentence ends with one of the accent types of this language. For a falling accent, there is a sharp F0 fall sentence finally while for a flat accent, the sentence terminates with a level F0 at a higher pitch register. Accent of the verb is deleted when it follows immediately after a wh-word, *kakari* particle, or a focused word. In such a case, the predicate verb forms a uniform accentual phrase with the preceding accentual phrase and both a falling and a flat accent is realized as a level F0 at a low pitch register.

7. ACKNOWLEDGEMENTS

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8. REFERENCES

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