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An Analysis of Pitch Movement of Sentences with Topic Markers in Sundanese[1]

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Abstract

Sundanese has two topic markers, i.e., *teh* and *mah* (Furihata 2015). Among them, *mah* shows a clear contrast. I investigated the pitch patterns of some Sundanese sentences containing topic markers using an acoustic approach. The investigation revealed the following tendencies:

1) The pitch pattern of the phrases with the particle *mah* shows a great rise before the particle, whereas that of the phrases with the particle *teh* shows a rise at the particle.

2) The pitch movement of the sentences with *mah* shows a broader range than that of the sentences with *teh*.

3) In some cases, which part of the sentences were accented differed depending on whether *teh* or *mah* was used.

Keywords: Sundanese, topic markers, pitch movement

Introduction

The aim of this study is to analyze the acoustic features of intonation of sentences containing topic markers in Sundanese[2].

One interesting characteristic of Sundanese is its various strategies concerning information structure. Especially, Sundanese features two particles that function as topic markers: *teh* and *mah*. Between them, *mah* shows a clear contrast[3]—that is, the constituent with *mah* is highlightened in comparison with other things. Thus, I identified *mah* as a contrastive topic marker, whereas *teh* as a resumptive topic marker (Furihata 2015).

I have also conducted some other research on the information structure of both Sundanese and Indonesian, the national language of Indonesia (2016a, 2016b). In that, I pointed out that intonation had an interesting role for information structure taking Halim (1974) into consideration. Halim (1974) discussed the role of intonation in relation to syntax in Indonesian and argues that syntactically motivated intonation patterns can be related to the categories “topic” and “comment,” which are not syntactically marked by such devices as word order. There are no

systematic description of Sundanese intonation. However, his study on Indonesian intonation seems to be applicable to that of Sundanese.

The present study is an attempt to investigate the features of Sundanese information structure, especially sentences containing topic markers *teh* and *mah*, using an acoustic approach. I investigate the pitch movement of sentences with *teh* and *mah* to identify the part of the sentence in which high pitch is used.

I. Previous Studies

1.1 Halim's Discussion of Intonation in Indonesian

Halim (1974) has established three pitch levels for his description of intonation—that is, high pitch level (PL3), neutral or mid pitch level (PL2) and low pitch level (PL1). A sentence or utterance contains one or more pause-groups (identical with a "breath group" or "tone unit"), and each pause-group consists of one contour (or pitch pattern). Four pitch patterns can be related[4] to grammatical categories, as shown in Table 1.

Table 1：Halim's pitch patterns relatable to grammatical categories[5]

Pitch pattern	Grammatical role
231_f	Unmarked comment
232_f	Marked comment
233_r	Focalized topic
211_f	Unfocalized topic

The pitch pattern of the sentence with topic-comment order is "233_r / 231_f #," and that of the sentence with comment-topic order is "232_f / 211_f #."[6] A pair of simple examples is shown in (1) and (2). These are nominal sentences in which the grammatical subject acts as a topic and the grammatical predicate acts as a comment.

(1) Orang itu guru saya. 'That man is my teacher.'
2- man 33_r that / 2- teacher 31_f # 1SG (Halim 1974:107)

(2) Guru saya orang itu. 'My teacher is what that man is.'
2- teacher 32_f 1SG / 2- man 11_f that # (Halim 1974:107)

In (1), the grammatical subject *orang itu* ‘that person’ also performs the role of the focalized topic. The pitch movement to PL3 occurs at the end of the phrase (i.e. pause-group) and then remains high. The predicate *guru saya* ‘(is) my teacher,’ as an unmarked comment, rises abruptly to PL3 at the penult of the phrase, followed by an abrupt pitch fall to PL1.

In (2), the grammatical predicate *guru saya* precedes the subject *orang itu*. This word order means that the predicate becomes the marked comment, whereas the subject as topic is defocalized. As is the case with unmarked comment, the pitch of the marked comment abruptly rises around the penult of the pause-group and then falls, but the pitch level does not reach PL1 because it is not in the sentence-final position. The subject as unfocalized topic does not show any significant pitch movement until it reaches the end of the utterance and fades away.

Examples of a non-nominal sentence will be shown in (3) and (4). Note that the topic-comment construction is not always identical with the subject-predicate construction.

(3) Dia berangkat ke Amerika kemarin.
233_r / 2- 32_f / 2- 11_f #
3SG leave to America yesterday
‘Speaking of him, as for yesterday, he left for America.’ (Halim 1974:145)

(4) Dia berangkat ke Amerika kemarin.
2- 33_r / 2- 31_f #
3SG leave to America yesterday
‘As for his departure to America, it was yesterday.’ (Halim 1974:146)

In (3), the subject *dia* ‘he/she' and the adjunct *kemarin* ‘yesterday’ form a focalized topic and an unfocalized topic, respectively. In (4), the clause *dia berangkat ke Amerika* ‘he/she left for America’ is a focalized topic, and the adjunct *kemarin* ‘yesterday’ forms its comment.

According to my observation, Sundanese shows similar intonation patterns as described by Halim (1974) in regard to topic-comment structure.

1.2 Some works on Intonation of Sundanese

Some works referred to intonation in Sundanese, such as Robins (1953), Syoc (1959), and Sudaryat et al. (2007). However, they offered only a general description of the intonation pattern, and none of them made any clear statements on intonation in relation to topic markers.

Figure 1 shows the intonation patterns in Robins (1953:117).

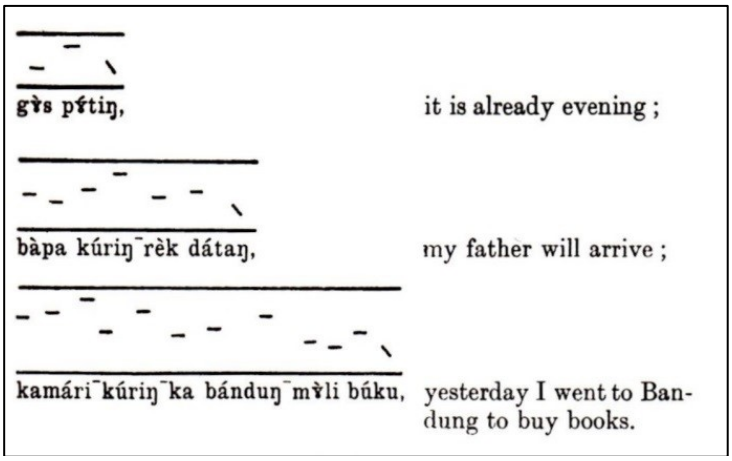

Figure 1 Intonation Patterns in Robins (1953:117)

The first sentence [gɤs pɤtiŋ] (*geus peuting*) 'it is already evening' only consists of one constituent that is considered a comment. The second sentence [bapa kuriŋ rek dataŋ] (*bapa kuring rek datang*) 'my father will arrive' consists of two constituents, in which the former (*bapa kuring*) is a topic and the latter (*rek datang*) is a comment. The third sentence [kamari kuriŋ ka banduŋ mɤli buku] (*kamari kuring ka Bandung meuli buku*) 'yesterday I went to Bandung to buy books' consists of four constituents, of which the first three are considered topics (*kamari*, *kuring*, *ka Bandung*), whereas the last one (*meuli buku*) is a comment. Halim's intonation patterns seem to match those constituents.

Figure 2 shows the intonation patterns in Syoc (1959:62).

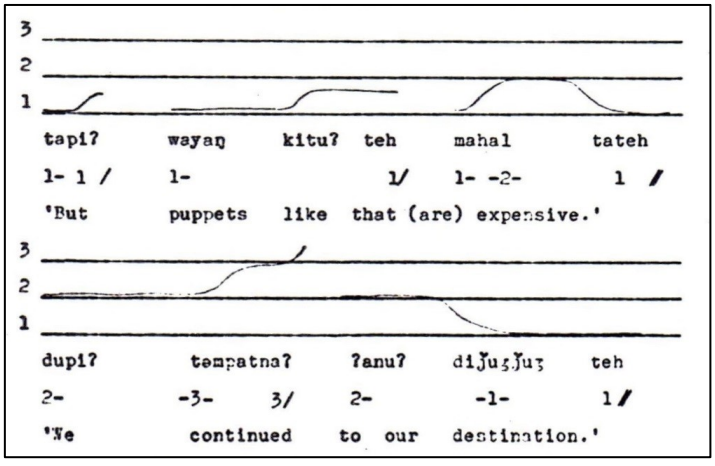

Figure 2 Intonation patterns in Syoc (1959:62)

He stated that a speaker's variation, unless in conjunction with pause, may vary freely from any of the three levels of pitch without structural significance (Syoc 1959:61) and related pitch patterns with sentence types such as statements, questions, and requests (Syoc 1959:62-63). Thus, he did not recognize intonation patterns as markers of sentence structure.

Note that the particle *teh* appears in both sentences, and the pitch patterns of the constituents containing *teh* ([wayaŋ kituʔ teh] *wayang kitu teh* 'puppets like that' and [ʔanuʔ dijugjug teh] *anu dijugjug teh* 'the place to go, destination') seem to show Halim's "focalized topic" and "unfocalized topic," respectively. Also the word *tateh*, the shortened form of *eta teh* (*eta* 'that'), can be found in the first sentence. The word *tateh* will not be discussed further here.

Figure 3 shows the intonation patterns in Sudaryat et al. (2007:43).

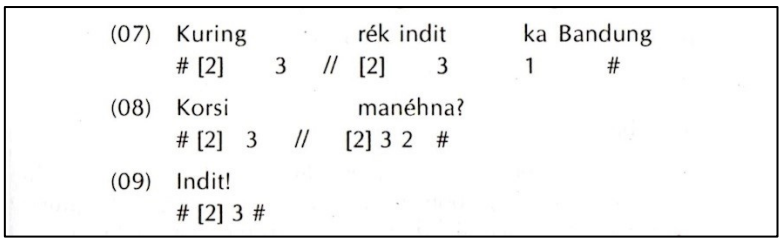

Figure 3 Intonation patterns in Sudaryat et al. (2007:43)

The first sentence *Kuring rek indit ka Bandung* 'I will go to Bandung' seems to correspond to Halim's "focalized topic - unmarked comment" construction (*kuring* 'I' as topic and *rek indit ka Bandung* 'will go to Bandung' as comment). However, it seems that intonation patterns here are only related to sentence types, such as statements, questions, and orders. This is similar to Syoc, as the second sentence *Korsi manehna?* '(Is it) his/her chair?' is interrogative and the third sentence *Indit!* 'Go!' is imperative.

Robins (1953:117) stated that the high tone, the short pause that accompanies it, and the sentence's final falling tone might be related to sentence structure, but no further explanation was offered regarding sentence patterns. On the other hand, both Syoc (1959) and Sudaryat et al. (2007) considered that intonation could be related to sentence type. However, correspondence between their explanations and Halim's discussion on intonation patterns can be observed.

II.**Analysis Procedure**

2.1 Sentences for the Present Investigation

The main purpose of the present investigation is to analyze how the pitch movement of Sundanese sentences with topic markers is realized. The differences between that of the sentences with *teh* and *mah,* in particular, will be compared.

The sentences for the present investigation consist of two types. The first consists of nominal sentences, in which the grammatical subjects form topics in information structure (with or without the topic markers *teh* and *mah*); the other consists of non-nominal sentences, in which temporal adjuncts accompany the topic markers *teh* and *mah*.

Sentences (5a) through (5e) are nominal sentences. Among them, (5a) through (5c) show subject-predicate order (in which the topic precedes its comment in each sentence), whereas (5d) and (5e) have predicate-subject order (that is, the comment precedes its topic).

Topic markers *teh* and *mah* are not obligatory in subject-predicate order, thus (5a) is listed besides (5b) and (5c) for comparison between the sentence with and without topic markers. On the other hand, the sentence without topic markers in predicate-subject order was not prepared because the phrase without such topic markers in such order is less common.

(5a)	*Ieu*		//	*perkara*	*kadua.*	
	this			matter	second	
(5b)	*Ieu*	*teh*	//	*perkara*	*kadua.*	
	this	TOP		matter	second	
(5c)	*Ieu*	*mah*	//	*perkara*	*kadua.*	(Iskandarwassid 1989:45)
	this	TOP		matter	second	

(5d)	*Perkara*	*kadua*	//	*ieu*	*teh.*
	matter	second		this	TOP
(5e)	*Perkara*	*kadua*	//	*ieu*	*mah.*
	matter	second		this	TOP

'This is the second matter.'

Sentences (6a) through (6d) are non-nominal sentences in which temporal adjuncts accompany the topic markers *teh* and *mah*. In (6a) and (6b), temporal adjuncts with topic markers come first (thus, the topic precedes its comment), whereas in (6c) and (6d), temporal adjuncts with topic markers come at the end of the sentence (thus, the comment precedes its topic). The topic phrase with a single word *harita* 'at that time' is less common without topic markers, thus only sentences with *teh* and *mah* are prepared for the present investigation.

(6a)	*Harita*	*teh*	//	*kuring*	*keur*	*di*	*kantin.*
	at that time	TOP		1SG	PROG	at	canteen
(6b)	*Harita*	*mah*	//	*kuring*	*keur*	*di*	*kantin.*
	at that time	TOP		1SG	PROG	at	canteen

(6c)	*Kuring*	*keur*	*di*	*kantin*	//	*harita*	*teh.*
	1SG	PROG	at	canteen		at that time	TOP
(6d)	*Kuring*	*keur*	*di*	*kantin*	//	*harita*	*mah.*
	1SG	PROG	at	canteen		at that time	TOP

'I was in the canteen at that time.'

2.2 Speakers

Table 2 shows the three speakers recorded for the present investigation. All are native speakers of Sundanese.

Table 2：The Speakers for the Present Investigation

[01de]	male, late-forties, born in Subang (West Java)
[03si]	female, mid-twenties, born in Bandung (West Java)
[05en]	male, late-twenties, born in Bandung (West Java)

2.3 Recording

The recording was conducted in an otherwise silent room at Universitas Pendidikan Indonesia (Indonesia University of Education), Bandung, West Java, Indonesia.

Sentences (5a) through (5e) were read twice, then (6a) through (6d) were read twice. I instructed the speakers to read the sentences at a natural speed and imagine a situation in which they might speak each sentence in a conversation.

A solid state recorder (Maranz PM670) and a dynamic microphone (Roland DR-HS5) were used to capture the recording. The voices were recorded in PCM wave files with a 44,100 Hz sampling rate and a 16-bit monophonic mode.

2.4 Measurement and Analyzing Device

The observation points were obtained by dividing each syllable that occurred in the sentences at equal intervals between its beginning and the end. The number of observation points ranged from 4 to 7 for one syllable and 7 to 9 for two continuous syllables.

The F0 frequency value of the observation points was measured using *Praat* (version 6.0.19) with the Windows 7 operating system. The ranges used in the measurement of F0 frequency were 60–250 Hz for [01de], 120–300 Hz for [03si], and 80–200 Hz for [05en].

The obtained data were plotted in sequential line graphs on a logarithmic scale and analyzed.

III. Results and Discussion

The results of the analysis will be shown in the sequence of nominal sentences (topic-comment order and comment-topic order), then non-nominal sentences (topic-comment order and comment-topic order) for each speaker. This is to focus on the speaker's characteristics of pitch movement, especially the difference between the use of *teh* and *mah*, rather than the difference among pitch movement of the speakers.

3.1 Nominal Sentences of [01de]

3.1.1 Subject-Predicate (Topic-Comment) Order

Figures 4 and 5 show the pitch movement of Sentences (5a), (5b), and (5c) uttered by [01de] in his first and second recordings, respectively.

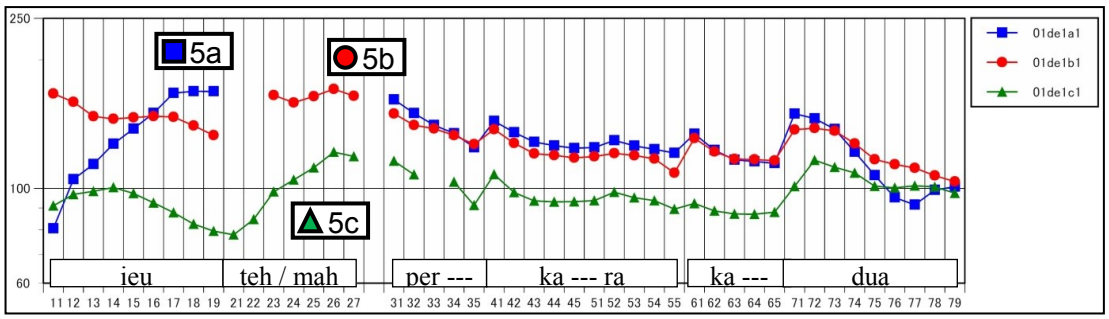

Figure 4 Pitch movement of (5a), (5b), and (5c) by [01de] (1st recording)

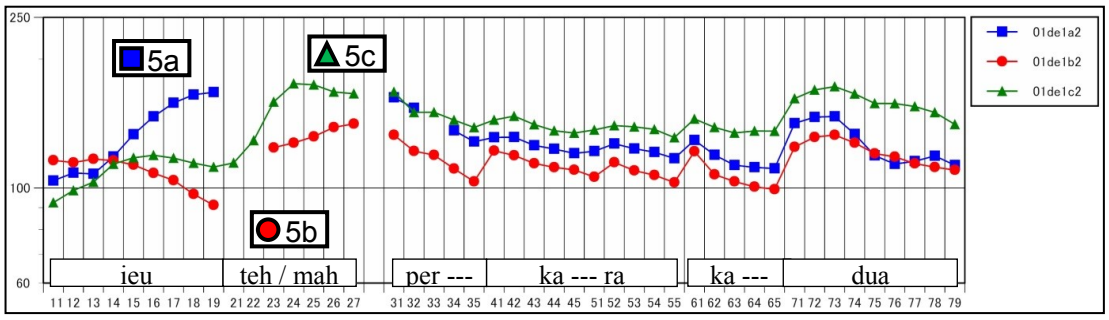

Figure 5 Pitch movement of (5a), (5b), and (5c) by [01de] (2nd recording)

The subject without topic markers in (5a) only shows a rising pitch movement, whereas the pitch of the subject in both (5b) and (5c) falls before the topic markers *teh* and *mah*, respectively,

then shows an clear rise at *teh* and *mah*. This falling and subsequent rising pitch movement may give an impression of a higher degree of rise than mere rising pitch movement.

3.1.2 Predicate-Subject (Comment-Topic) Order

Figures 6 and 7 show the pitch movement of Sentences (5d) and (5e), respectively, uttered by [01de].

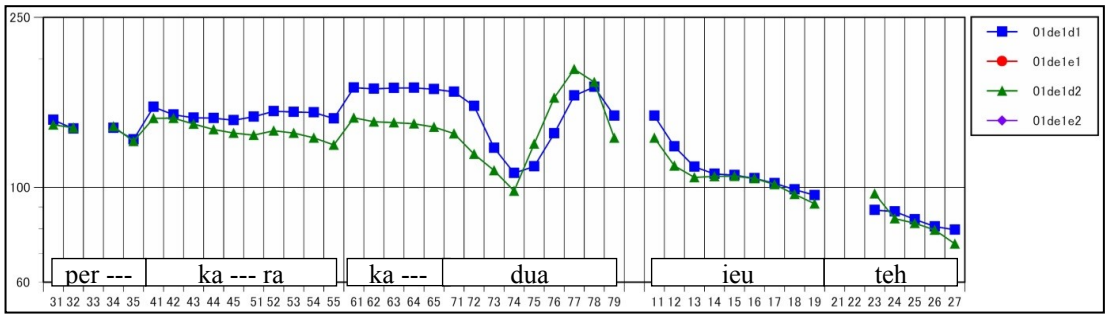

Figure 6 Pitch movement of (5d) by [01de] (1st and 2nd recording)

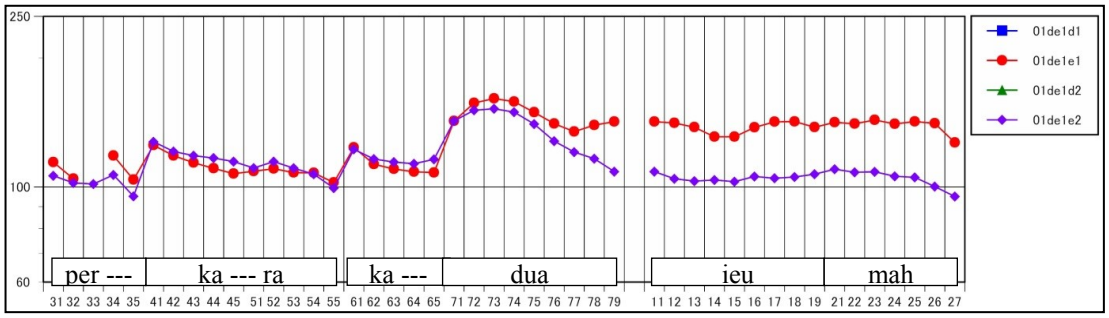

Figure 7 Pitch movement of (5e) by [01de] (1st and 2nd recording)

Two distinctions are found between (5d) and (5e). First, the rising points are different in the predicate (or comment); that is, the pitch falls and then rises in the middle of *dua* of *kadua* ("second") in (5d), whereas the pitch rises at the beginning of *dua* in (5e). This difference suggests that the use of *teh* or *mah* can also affect the rising point of the pitch movement in a predicate (or comment). Second, the subject (or topic) of (5d) shows a gradual descent toward the end of the final, whereas that of (5e) shows a flat movement.

3.2 Non-Nominal Sentences of [01de]

3.2.1 Topic-Comment Order

Figures 8 and 9 show the pitch movement of Sentences (6a) and (6b), respectively, uttered

by [01de].

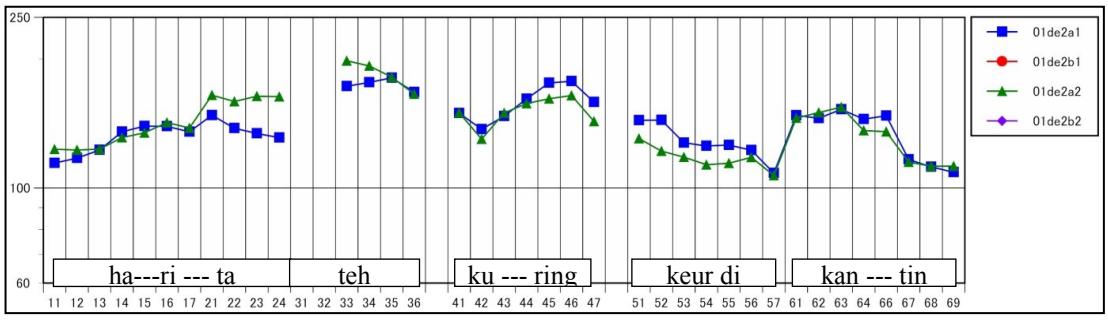

Figure 8 Pitch movement of (6a) by [01de] (1st and 2nd recording)

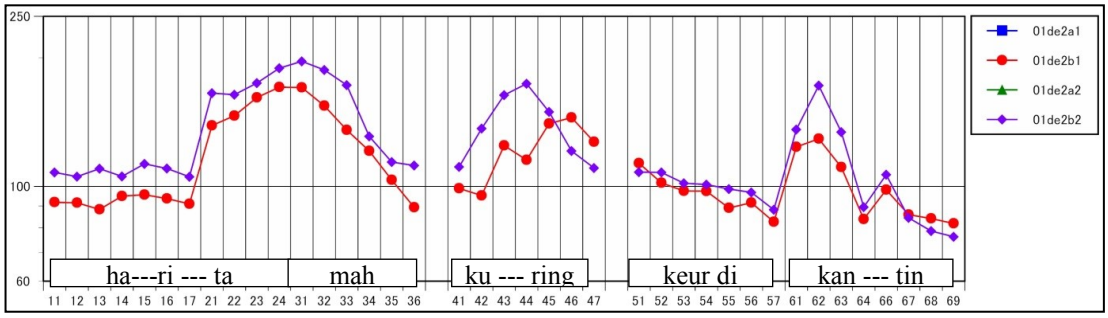

Figure 9 Pitch movement of (6b) by [01de] (1st and 2nd recording)

A clear distinction between (6a) and (6b) is that the pitch of the topic in (6b) shows a sharp rise at *ta* of *harita* ("at that time"), then a rather sharp fall from the middle to the end of the topic marker *mah*. Additionally, the overall rising-falling movement of (6b) seems to show a broader range than that of (6a).

3.2.2 Comment-Topic Order

Figures 10 and 11 show the pitch movement of Sentences (6c) and (6d), respectively, uttered by [01de].

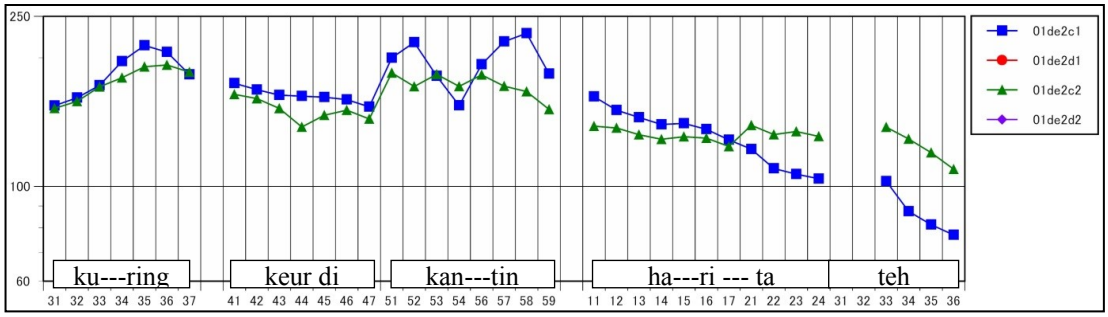

Figure 10 Pitch movement of (6c) by [01de] (1st and 2nd recording)

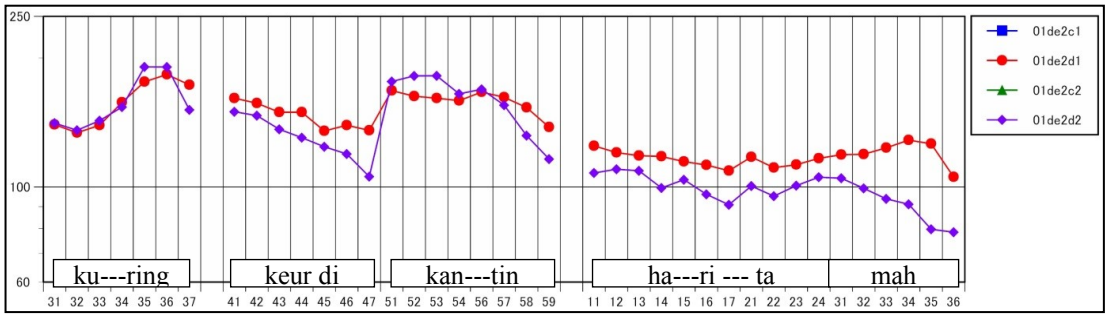

Figure 11 Pitch movement of (6d) by [01de] (1st and 2nd recording)

No clear distinctions seem to be found between (6c) and (6d). The pitch movement of the topic with *mah* in (6d) looks flat when compared to (6c), but this distinction is not clear when compared to the pitch movement of (5d) and (5e).

3.3 Nominal Sentences of [03si]

3.3.1 Subject-Predicate (Topic-Comment) Order

Figures 12 and 13 show the pitch movement of Sentences (5a), (5b), and (5c) uttered by [03si] in her first and second recordings, respectively.

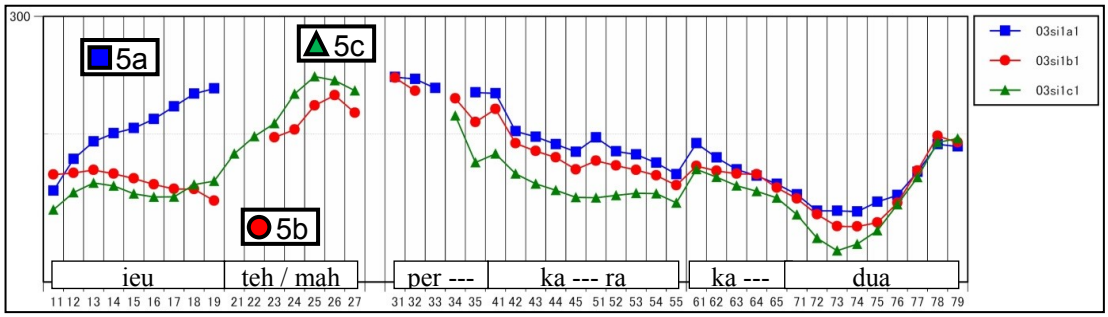

Figure 12 Pitch movement of (5a), (5b) and (5c) by [03si] (1st recording)

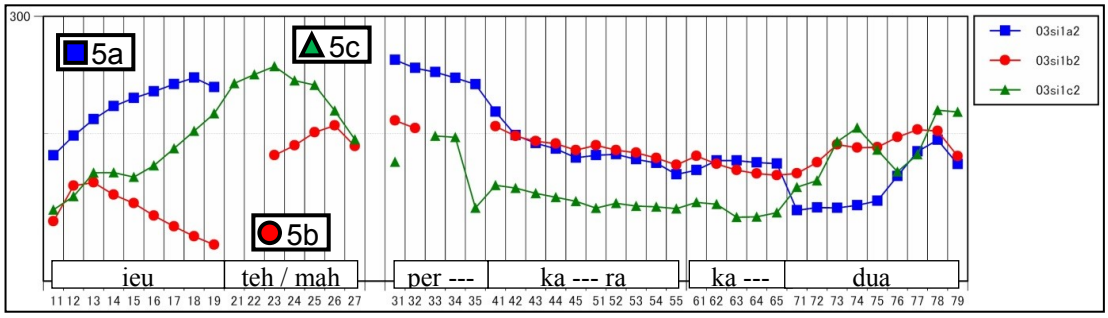

Figure 13 Pitch movement of (5a), (5b) and (5c) by [03si] (2nd recording)

As with [01de], the subject without topic markers in (5a) only shows a rising pitch

movement, whereas the pitch of the subject in both (5b) and (5c) falls before the topic markers *teh* and *mah*, respectively, then shows an clear rise at *teh* and *mah*. In addition, the pitch movement of the predicate in (5c) falls lower than the other sentences, then shows a sharp rise.

3.3.2 Predicate-Subject (Comment-Topic) Order

Figures 14 and 15 show the pitch movement of Sentences (5d) and (5e), respectively, uttered by [03si].

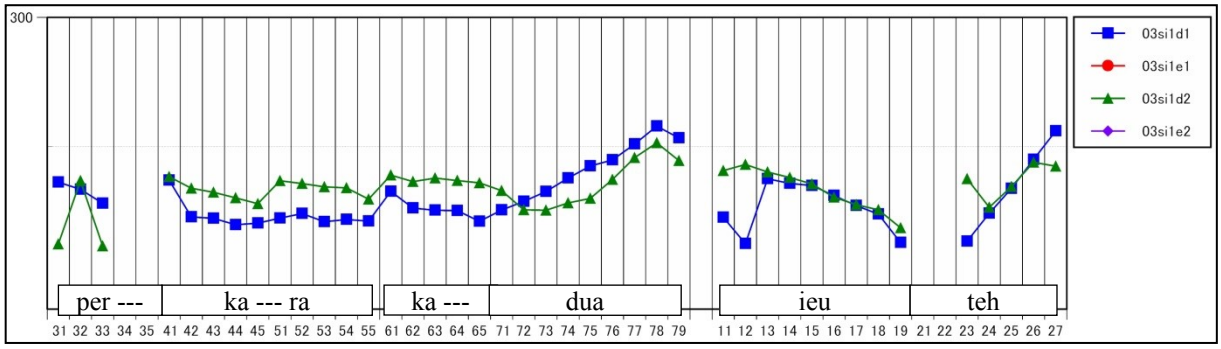

Figure 14 Pitch movement of (5d) by [03si] (1st and 2nd recording)

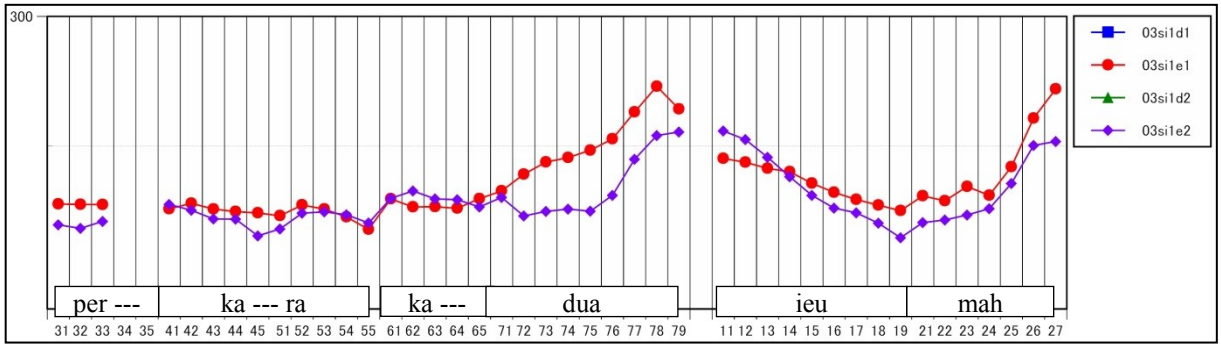

Figure 15 Pitch movement of (5e) by [03si] (1st and 2nd recording)

No clear distinctions are found between (5d) and (5e). However, the overall movement of (5e) seems to show a broader range than that of (5d).

3.4 Non-Nominal Sentences of [03si]

3.4.1 Topic-Comment Order

Figures 16 and 17 show the pitch movement of Sentences (6a) and (6b), respectively, uttered by [03si].

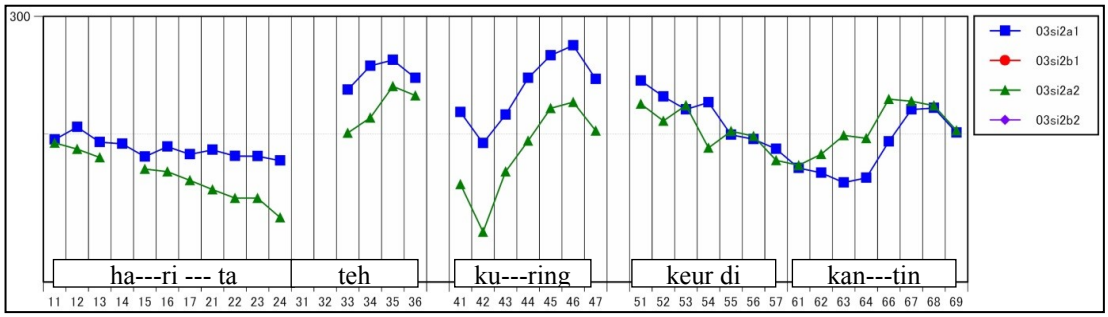

Figure 16 Pitch movement of (6a) by [03si] (1st and 2nd recording)

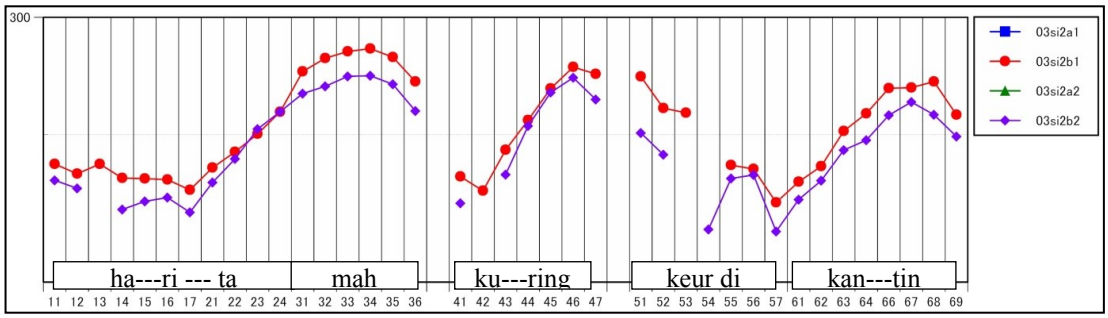

Figure 17 Pitch movement of (6b) by [03si] (1st and 2nd recording)

The pitch of the topic part of the sentence shows a falling or flat movement at *ta* of *harita* (“at that time”), then rises at the topic marker *teh* in (6a), whereas the pitch of (6b) begins to rise at *ta* of *harita* in (6b), then falls at the end of the topic marker *mah*. Moreover, the pitch at the final word *kantin* (“canteen”) appears to rise more sharply in (6b) than in (6a).

3.4.2 Comment-Topic Order

Figures 18 and 19 show the pitch movement of Sentences (6c) and (6d), respectively, uttered by [03si].

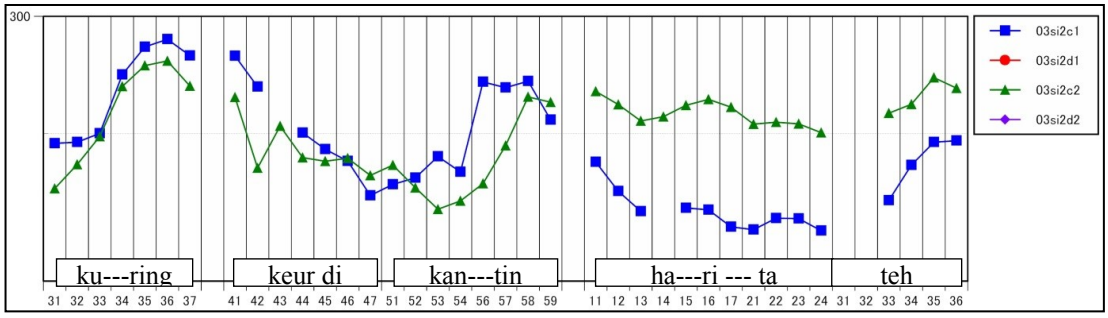

Figure 18 Pitch movement of (6c) by [03si] (1st and 2nd recording)

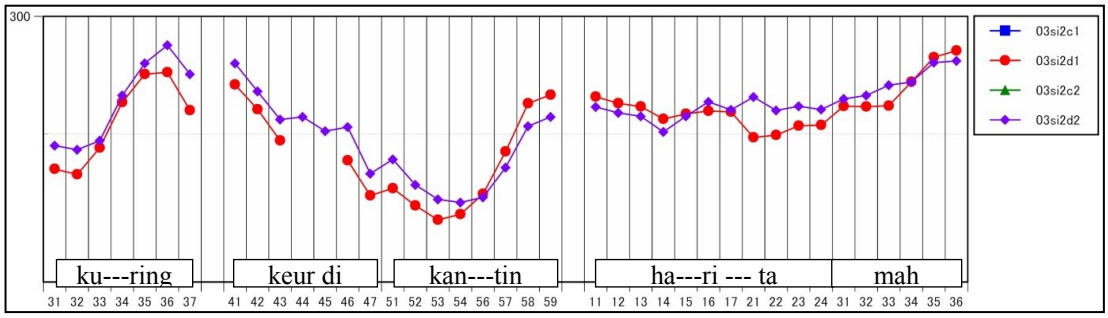

Figure 19 Pitch movement of (6d) by [03si] (1st and 2nd recording)

There seems to be no distinction between the pitch pattern of (6c) and (6d) except her first recording of (6c), represented with square markers in Figure 18, which shows a different pattern of movement than the other three sentences. This result suggests that factors other than the usage of topic markers should be considered as contributing to differences in pitch movement.

3.5 Nominal Sentences of [05en]

3.5.1 Subject-Predicate (Topic-Comment) Order

Figures 20 and 21 show the pitch movement of Sentences (5a), (5b), and (5c) uttered by [05en] in his first and second recordings, respectively.

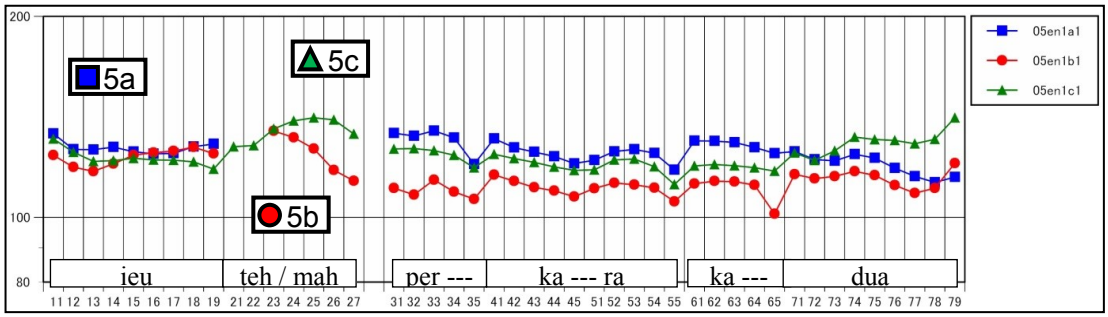

Figure 20 Pitch movement of (5a), (5b) and (5c) by [05en] (1st recording)

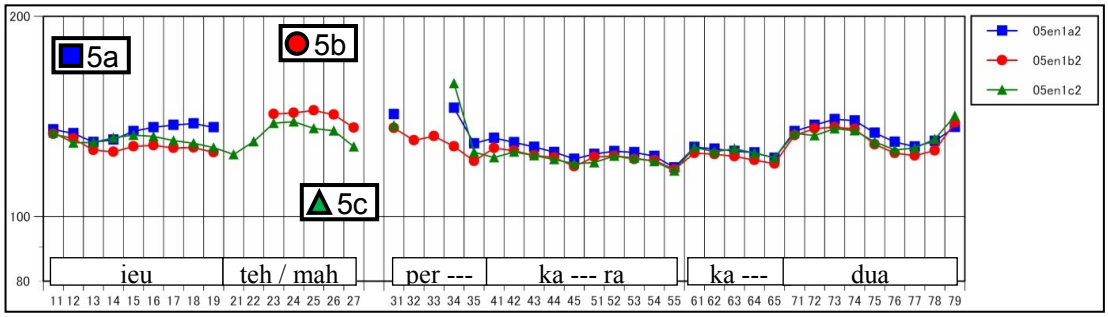

Figure 21 Pitch movement of (5a), (5b) and (5c) by [05en] (2nd recording)

No clear distinctions can be found among (5a), (5b), and (5c). However, (5b) and (5c) show a small fall in the subject (or topic) at the end of *ieu* (“this”), after which the pitch rises at the topic marker (*teh* and *mah*). In contrast, the pitch of (5a) shows a rather flat movement.

3.5.2 Predicate-Subject (Comment-Topic) Order

Figures 22 and 23 show the pitch movement of Sentences (5d) and (5e), respectively, uttered by [05en].

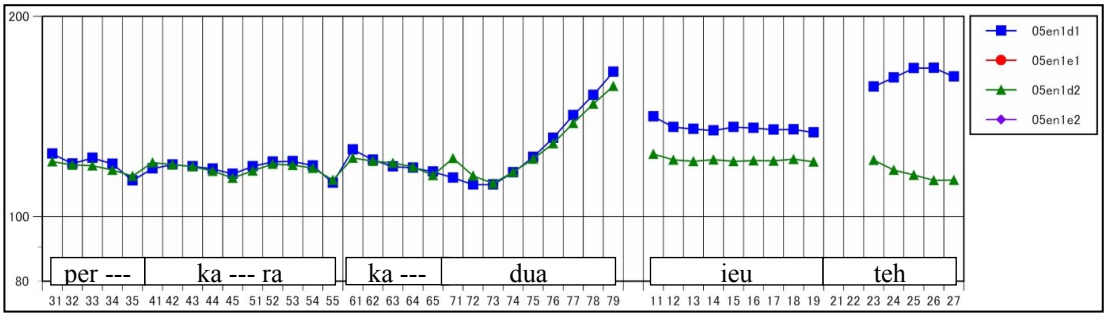

Figure 22 Pitch movement of (5d) by [05en] (1st and 2nd recording)

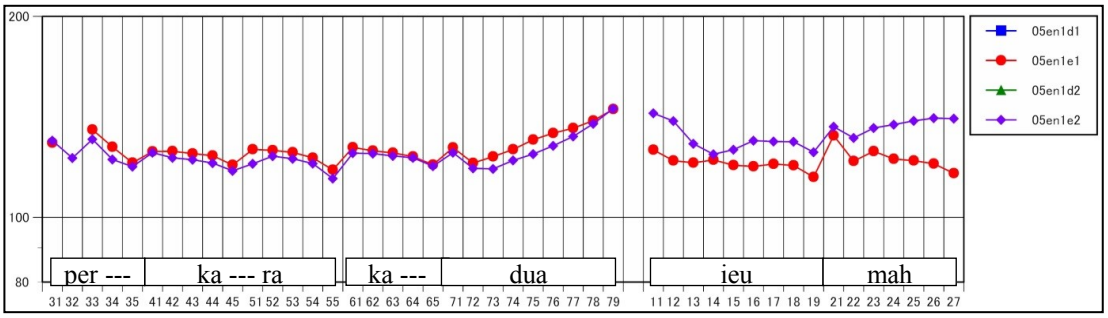

Figure 23 Pitch movement of (5e) by [05en] (1st and 2nd recording)

The predicate (comment) in (5d) shows a sharper rise in pitch than that of (5e). The pitch differs at the end of each sentence, and this difference may be affected by factors other than the usage of *teh* or *mah*.

3.6 Non-Nominal Sentences of [05en]

3.6.1 Topic-Comment Order

Figures 24 and 25 show the pitch movement of Sentences (6a) and (6b), respectively, uttered by [05en].

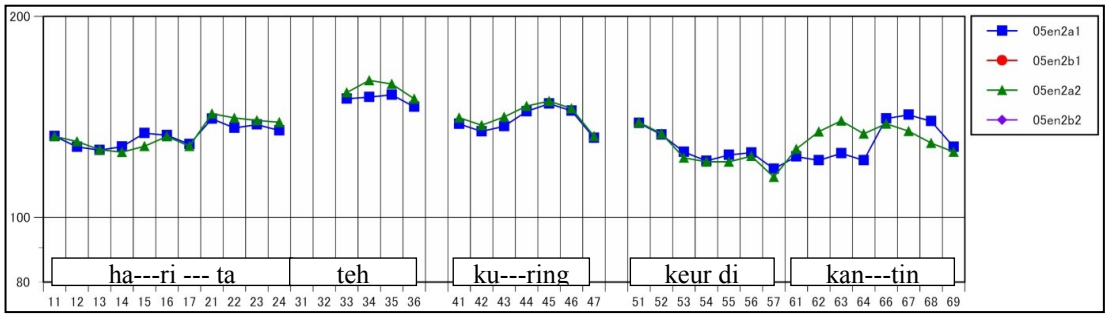

Figure 24 Pitch movement of (6a) by [05en] (1st and 2nd recording)

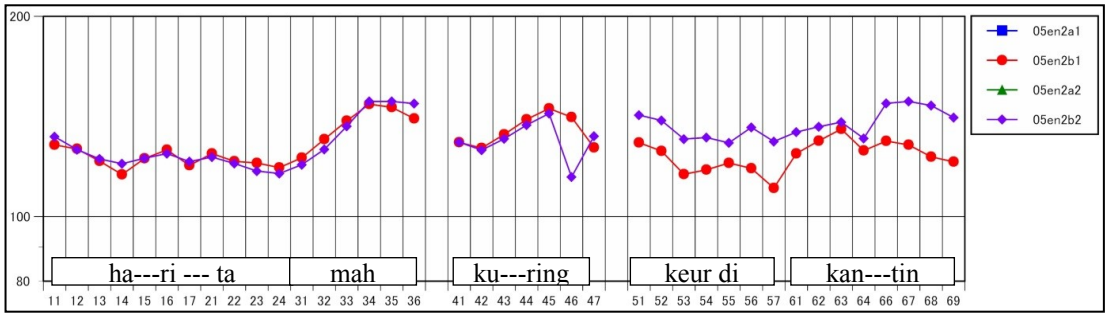

Figure 25 Pitch movement of (6b) by [05en] (1st and 2nd recording)

The pitch of the topic phrase in (6b) is lower than that of (6a) before the topic markers. Thus, the rise at the topic marker in (6b) appears greater. There seems to be no other clear distinction between them.

3.6.2 Comment-Topic Order

Figures 26 and 27 show the pitch movement of Sentences (6c) and (6d), respectively, uttered by [05en].

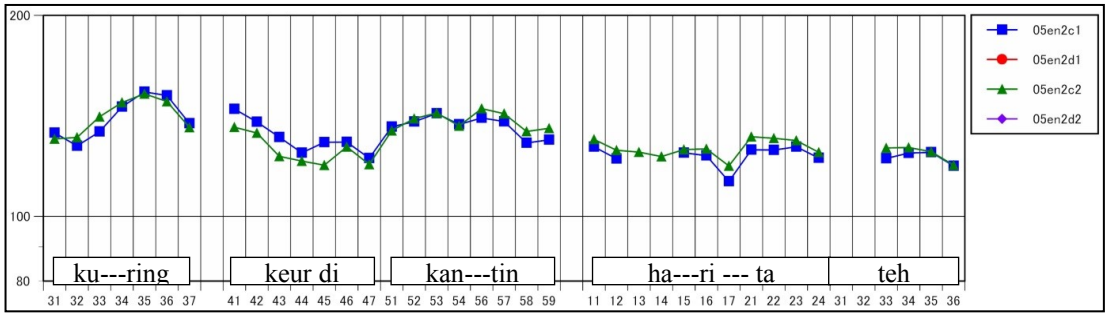

Figure 26 Pitch movement of (6c) by [05en] (1st and 2nd recording)

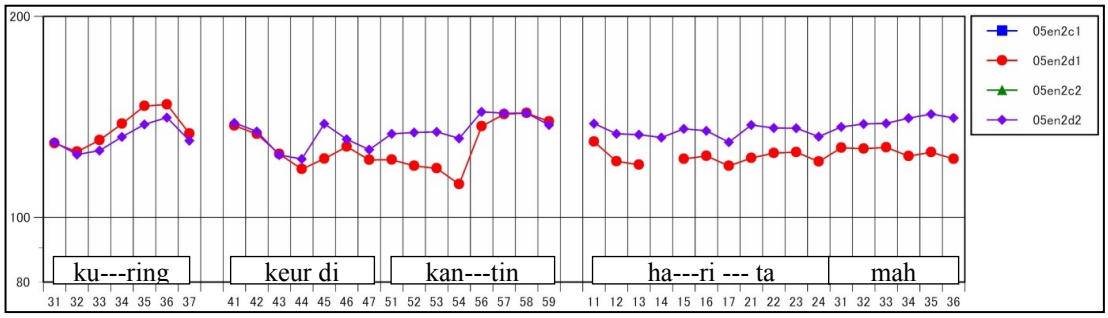

Figure 27 Pitch movement of (6d) by [05en] (1st and 2nd recording)

No clear distinction can be found between the pitch movement in sentences (6c) and (6d). The topic phrase in (6d), *harita mah* ("at that time") seems flat when compared to that in (6c), *harita teh* ("at that time"). However, the first recording of (6c), shown with square markers, and (6d), shown with circle markers, show almost the same pitch movement at the topic phrases, except that (6c) shows a falling pitch at the end of the syllable *ri* in *harita*.

IV. **Summary**

The pitch movement of each of the three speakers in this investigation showed different patterns. The use of two topic markers seemed to have a considerable influence on the pitch movement of [01de], and differences between the use of *teh* and *mah* were easily distinguished. The use of the topic markers seemed to slightly influence the pitch movement of [05en] and moderately influence the pitch movement of [03si].

Table 3 shows some similarities and differences among the pitch movement of the speakers observed in the analysis above:

Table 3：Similarities and Differences among the Speakers

Similarities among the speakers:
- Rising towards the phrase final of a topic in topic-comment order
- Falling and subsequent rising in the phrase both with *teh* and *mah* in topic comment order
Differences among the speakers:
- Flat, falling, rising at the end of the topic phrase in comment-topic order
- Degree of consistence of pitch movement in comment phrase

As for similarities, rising pitch movement in the topic phrases in topic-comment order is common among the three speakers, and is considered similar to Halim's "focalized topic."

Falling and subsequent rising pitch movement may suggests that such movement may give an impression of a higher degree of rise than mere rising pitch movement, as mentioned in 3.1.1.

As for differences, pitch movement in the topic phrase in comment-topic order varies among the speakers (flat, falling, rising), and that in the comment phrase also varies both in topic-comment order and comment topic order. It is difficult to mention what factors will affect the pitch movement of such phrases. However, the pitch movement of each speaker seems to have his/her own characteristics. For example, [01de] showed difference in the accentuated part of the comment phrases between the use of *teh* and *mah*, [03si] showed rising pitch movement of topic phrases in comment-topic order, and [05en] showed sharp rise at the end of the comment phrases in Sentence (5d).

The following tendencies were identified in this study:

(a) Especially in topic-comment order, the pitch movement of the phrases with *mah* showed a great rise before the topic marker, whereas that of the phrases with *teh* showed a rise at the topic marker, as seen in Sentences (6a) and (6b) as read by all three speakers.

(b) The pitch movement of the sentences with *mah* showed a broader range than that of the sentences with *teh*, as seen in (5d) and (5e) of [01de], except in (5d) and (5e) of [05en], in which the pitch movement showed the opposite pattern.

(c) In some cases, a clear difference in the accentuated part of the sentences was found between the use of *teh* and *mah*, as seen in (5d) and (5e) of [01de] and [05en]. The difference was observed not only in the topic phrase, but also in the comment phrase.

However, pitch-movement tendencies differed among the speakers, as mentioned above—especially in many cases of [05en] and between (6c) and (6d) of [03si]. Some factors other than pitch movement can be considered. For example, the duration of the *mah* in comment-topic order sentences was longer than that of *teh*, even though duration was not taken into consideration in the present investigation. The contextual situation imagined by the speaker in reading the sentences may also have influenced the pitch movement. It is also possible that intonation distinction is not always necessary for the expression of intention because of the lexical difference between *teh* and *mah*.

In the present study, the use of *teh* and *mah* seemed to affect the other constituent (comment) in some sentences. On the other hand, in some of the studied sentences, no clear distinction was found between sentences with *teh* and *mah*. Further investigation is needed to analyze intonation in Sundanese, especially in the information structure of sentences with and without topic markers, accounting for other factors, such as duration and context.

Note

[1] This paper is a revised version of Furihata (2017). I am very grateful for all the comments given to me during and after the presentation.
[2] Sundanese is a regional language in Indonesia. It is mainly spoken in the western part of Java Island and has approximately 30 million speakers. The aim of this study is to analyze the acoustic intonation features of Sundanese sentences containing topic markers.
[3] According to Coolsma (1904:265-266), strong stress is put on a word, phrase, or sentence with mah, and mah therefore shows a contrast because of the stress.
[4] The term "relatable" was used in Halim (1974).
[5] The terminal part of the pitch movement is displayed by f (falling) or r (rising) at the contour final (Halim 1974:109).
[6] A single bar (/) represents a "tentative pause," which indicates that the preceding pause-group is non-final in the sentence, while a double-cross (#) represents the "final pause" at which the sentence ends (Halim 1974:117).

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