Vocative intonation in South Gyeongsang Korean^{*} —A preliminary study—

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Key words : vocative, interrogative, intonation, South Gyeongsang Korean

1. Introduction

This study investigates vocative intonation in South Gyeongsang Korean. Vocative intonation is observed when one person calls someone. Usually, the prosodic characteristics of vocative intonation or calling contours are understudied in many languages including Japanese (Kubozono and Mizoguchi 2019, Kubozono 2022). Since vocative forms are often morphologically marked by a suffix -(j)a in Korean, even less attention has been paid to its prosodic patterns. This study focuses on the vocative and interrogative intonation patterns observed in words with a falling (HL) accent based on the observation that the two intonation patterns appear to be quite similar when interacting with the falling lexical accent.

Let us first consider the pitch contours of a Korean name "Yun" in a declarative (1a) and in a vocative form (1b). As can be seen from the contours in Figure 1, uttered by a female speaker of South Gyeongsang Korean, the vocative marker is realized in an intermediate level in pitch whereas the declarative form exhibits a low tone.

(1) a. Declarative: /jun/ [jun] (윤) b. Vocative: /jun-a/ [juna] (윤아)



Figure1 : Pitch contours of "Yun" in the declarative (left) and the vocative form (right) uttered by a female speaker of South Gyeongsang Korean

Interestingly, the intermediate level tone is not the only vocative intonation pattern available in this variety of Korean. In fact, there is another calling contour pattern observed in some utterances produced by a male speaker of South Gyeongsang Korean. A pitch contour of a vocative form by the male speaker, together with a pitch contour of a declarative form for comparison, is demonstrated in Figure 2.

^{*}本研究は JSPS 科研費 19H00530、21H00523 の助成を受けた。

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Unlike the patterns in Figure 1, the vocative contour of this speaker is associated with a low tone, involving an enhanced pitch peak.



Figure2 : Pitch contours of "Yun" in the declarative (left) and the vocative form (right) uttered by a male speaker of South Gyeongsang Korean

Turning to the interrogative intonation pattern, a slightly different name "Yuna" $(\stackrel{\circ}{\oplus} \stackrel{\circ}{\downarrow})$ was employed. The pitch contour of the interrogative form "Yuna?" is illustrated in Figure 3 below. Notice that this intonation pattern exhibits extremely similar tune to that of the vocative form of "Yun" shown in Figure 1. The difference between the vocative and the interrogative forms is observed in the lengthening of the vocative marker.



Figure3 : Pitch contour of "Yuna" in the interrogative form uttered by a female speaker of South Gyeongsang Korean

Yet, the perceptual similarity between the two intonation patterns—vocative and interrogative—is extremely difficult to test due to the presence/absence of the morphological vocative marker in Korean. Thus, two personal names 'Yun' and 'Yuna' were employed in this study. Note that both names bear a falling lexical accent, and the vocative form of "Yun" is segmentally identical to "Yuna" in citation. In other words, [juna] is ambiguous between a monosyllabic name /yun/ followed by the vocative suffix /-a/ and a bisyllabic name /yuna/ in citation.

2. Methods

In order to test the perceptual similarity between the two apparently similar intonation patterns, vocative and interrogative contours, a preliminary comprehension test was conducted in South Gyeongsang Korean.

2.1 Materials and recording

Three forms—a declarative form of "Yuna" (2a), a vocative form of "Yun" (2b), and an interrogative form of "Yuna"—were recorded. While the segmental realizations of all the three forms were identical [juna], the forms potentially exhibit distinct prosodic patterns.

(2) a. Declarative: /juna/ [juna] (유나.) b. Vocative: /jun-a/ [juna] (윤아~) c. Interrogative: /juna/ [juna] (유나?)

One female and one male speaker of South Gyeongsang Korean took part in the recording. Both were born and grew up in the city of Changwon, and were in their early forties. Recordings were made in a quiet office using a Marantz digital recorder (PMD 661) and a headset microphone (SHURE SM10A). They were asked to read a word list involving the target phrases together with three fillers as naturally as possible.

2.2 Comprehension test and participants

The three forms produced by the female speaker, and the vocative intonation pattern with the low boundary tone produced by the male speaker were tested. The target stimuli and two fillers were presented in a random order. The entire set was tested twice, and the test was performed using Google Docs.

A total of twenty speakers of South Gyeongsang Korean (eleven female and nine male speakers) participated in the test. Their age ranged from 22 to 48. Participants were asked to listen to each ut-terance and choose the most appropriate form for what they just heard. Three choices were provided in Korean orthography: "유나." for declarative, "윤아~" for vocative, and "유나?" for interrogative.

3. Results and discussion

Figure 4 shows the average percentage of participants' responses among the three forms. When a vocative form is realized in an intermediate boundary tone as in Figure 1 (V_Mid), the predominant responses were 'vocative (92.5%), suggesting that this intonation pattern may exclusively mark the vocative form. Yet, when it is associated with a low boundary tone as in Figure 2 (V_Low), substantial confusions were observed between declarative and vocative forms (52.5% vs. 47.5%). This result is not surprising since the overall shapes of the pitch contours were quite similar as shown in Figure 2. Presumably, the relatively higher peak in the vocative form alone may not be a reliable cue for participants to interpret the utterance as vocative.

Perhaps more interestingly, the intonation pattern for an interrogative (Q) appeared to be the most confusing; it received only 50% interrogative responses, with 12.5% declarative and 37.5% vocative comprehension. This considerable confusion between the vocative and interrogative forms can be attributed to the similarities observed in the pitch contours of vocative form in Figure 1 and interrogative form in Figure 3. Still, the vocative stimulus was nearly perfectly interpreted as vocative. It is conceivable that this difference may be accounted for by the lengthening of the last syllable observed in the vocative form in Figure 1. It should be noted that the vocative marker /-a/ exhibited substantial lengthening compared to the last vowel of "Yuna?" in the interrogative form.



Figure4 : Mean responses (%) depending on the intonation patterns

4. Conclusions

This paper discussed the interaction between pitch accent and post-lexical intonation patterns with special attention given to the vocative and interrogative pattern in South Gyeongsang Korean. The results of the comprehension study revealed that the vocative and interrogative intonation patterns were extremely confusing to listeners if the vocative intonation involved an intermediate boundary tone. In contrast, the substantial lengthening rendered by the morphological vocative marker may be a prominent cue for vocative comprehension.

Yet, the role of distinct boundary tones and degree of lengthening should be further tested in a more strictly controlled experimental setting. Also, an investigation into the interaction between other accent types and the intonation patterns is necessary in this variety of Korean.

[References]

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