

# Applications of Discourse Intonation III: Contrastive Analysis of Discourse Intonation in English and Korean



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## Introduction

In the December 2000 issue of the *Discourse Intonation Newsletter*, Jozsef Bendik notes:

*I find it convenient to use the four sub-systems of David's model (prominence, tone, to a lesser extent key and termination) to describe and compare intonational phenomena in Hungarian, Russian, Ukranian, French and English.*

With that I must heartily agree, having found the use of the Discourse Intonation Model to be invaluable for comparing English and Korean intonation. The main reason seems to be that the description rests on a “hypothesis about meaning”; as Brazil explains:

*. . . we must start with a hypothesis about meaning: before proceeding to detailed phonetic specification we need to know how many meaningful oppositions there are and how they are deployed with respect to each other. (Brazil 1997:4)*

Brazil's description is concerned with places in the spoken utterance where meaningful choices can be made by the speaker, choices such as whether or not to apply *prominence*, or to apply a *proclaiming vs. referring* tone. The meaningful choice categories, rather than the exact phonetic realizations of them, are central to his description, and this is what makes his model highly useful for contrastive analyses of discourse intonation. To illustrate, I will describe the application of the model to an initial contrastive analysis of English and Korean intonation (Wang, 2002).

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## Description of the Study

A small group of Korean speakers, all female, was given the map and exercise in PALE (*Pronunciation for Advanced Learners of English*) Unit 2, which deals with the discourse context of giving and receiving directions to a person's house. The participants were asked to do the exercise in their native language, Korean, and their dialogues were recorded on cassette tapes. Intonation choices in the Korean dialogues were then compared with those in the English dialogue, which was available in the course book for the same exercise, provided in PALE .

## Application of Brazil's Model

### (1) Tone Unit

The Korean unit of intonation analysis comes in a variety of forms, and for this reason a direct comparison with Brazil's tone units did not seem feasible. Therefore, another unit was chosen for a closer one-to-one comparison between units of Korean intonation with units of English intonation: the “unit of information processing.” Brazil suggested, citing Laver (1970), that the tone unit may be handled as units of linguistic processing by the brain, preassembled before they are uttered (Brazil 1975:5). I interpreted this to mean that tone units serve as units of

information processing, consistent with the Hallidayian view (Halliday, 1967). Hence, I compared Brazil’s tone units with what appeared to constitute “units of information processing” in the Korean stream of speech..

**(2) Prominence**

Crucial to the comparison of prominence in English and Korean was the attribute Brazil assigned to prominence as being a consequence of speaker choice. Much of what sounds like prominence in Korean is stress or accent applied according to relatively fixed Korean stress rules. Therefore, only those ‘prominences’ over which the speaker had independent choice and control were considered for comparison with Brazil’s prominence.

**(3) Tones**

In the context of giving and receiving information, only the choices involving (i) the “rise” and “fall” tones and (ii) the conveying of information as “new” or “common ground” were compared in English and Korean.

**A Summary of Major Findings**

Within the discourse context of giving and receiving directions among Korean, the following were observed:

**(1) Korean intonation units have a fixed underlying pitch contour and stress pattern.**

For example:

B: // ㄹㅓ a ji-geum // ㅓ je-ga yeo-gi / hor-seu en / gu-reum i-ra-neun /  
 (Ah,)(at the moment) (I) (here) (Horse) (and) (Groom) (called)  
 | • |  
 sik-dang-e wa-iss-neun-de //  
 (restaurant-at) (have come,)

1

*(Ah. I'm at the restaurant called the Horse and Groom right now. but)*

- 1.1 The symbol “|” placed above the first syllables of an intonation unit denotes the auditory impression of a “rhythmic beat” like those described by Lee (1990). They always fall on the first syllable.
- 1.2 The symbol “•” denotes the high-pitched syllable (called the H-syllable in this paper) which occurs regularly at either the second and/or final syllable of the unit of intonation in Korean hereafter *phrasal tone unit* (PTU)<sup>1</sup>. The boundaries of PTUs are marked by “//”.
- 1.3 The box border marks the syllable on which is found the Korean tone, called the “boundary tone” in Korean intonation literature, for example the rise-fall (ㄹㅓ) and fall (ㅓ) tones in 1. The tones always fall on the last syllable of another unit of intonation in Korean, referred to in this paper as the *boundary tone unit* (BTU). The boundaries of BTUs are marked by “//”.

(2) What constitutes “units of information processing” appears to vary considerably in Korean in contrast with the consistency of Brazil’s tone unit.

For example:

- 2.1 In (1), the symbol “<sup>1</sup>” denotes the boundaries of units of Korean speech that seem to correspond most closely with Brazil’s tone units as “units of information processing.”
- 2.2 In (1), “// ㄱ ㅅ a ji-geum //” comprises a single Korean speech unit that ends with a boundary tone, and is therefore called a boundary tone unit (BTU) in this paper. Hence, a “unit of information processing” resembling Brazil’s tone unit could comprise a single-unit BTU.
- 2.3 In (1), “// je-ga yeo-gi //” is a single Korean speech unit without a boundary tone and is therefore called a phrasal tone unit (PTU) in this paper. Hence, a “unit of information processing” in Korean could comprise one PTU.
- 2.4 Other variations found in the data were ones comprising a two-unit BTU, which is a BTU consisting of two PTUs and a boundary tone on the last syllable; and ones comprising two or three back-to-back PTUs with no boundary tone on the final syllable.

3. Prominence is applied over the entire word or lexical unit rather than on a single syllable, in contrast with prominence in Brazil’s model.

For example:

A: // <sup>1</sup> | | • | <sup>1</sup> | • <sup>1</sup>  
 A: // ㄴgeu / **o-reun-jjok-eu-ro** / geo-gi / mun-i iss-**jo?** //  
 (that) (right-to the) (there) (door) (is, right?)

2

(There should be a door to the right, right?)

B: // <sup>1</sup> | • | <sup>1</sup> | <sup>1</sup>  
 B: // ㄱo-reun-jjog-eu-ro-**yo?** // ㄴne / **ne** //  
 (Right hand side?) (yes) (yes)

3

(To the right? Yes, yes.)

A: // <sup>1</sup> | <sup>1</sup> | • | • | <sup>1</sup> | • <sup>1</sup>  
 A: // ㄴne, **ne** // ㄱ ㅅ o-reun-jjog-eu-ro / mun-eu-ro / na-o-shi-**myeon** // \* //  
 (Yes, yes.) (Right-hand side) (door-from) (if you come out)

4

ㄱ ㅅ na-o-shyeo-seo /\*/ **u-hoe-joen-eu** ha-se-**yeo** //  
 (come out and) (right turn) (do.)

(When you come out the door to the right, come out and turn right)

- 3.1 Whole words that bear prominence are highlighted in bold and underlined: “**o-reun-jjok-eu-ro**” (2); **u-hoe-joen-eu** (4).
- 3.2 This finding agrees with Kang (1995), who conducted an instrumental study of digitalized Korean speech and found Korean prominence to be manifested through increased amplitude, duration, and/or F0 changes.

**4. Prominence rather than tone is used to convey the information status of a speech segment.**

For example:

B: // ↗ye // 5  
 (Yes.)

A: // ↘ye // ↗↘ u-hoe-jeon-eul / ha-da bo-myeon-eun // ... 6  
 (Yes.) (Right turn) () --- if you do --- ()

*(Yes. After you turn right . . .)*

- 4.1 The “new” information “**o-reun-jjok-eu-ro**” is made prominent in (2), but the same information subsequently is not made prominent in (3) or (4).
- 4.2 The “new” information “**u-hoe-joen-eu**” is prominent in (4), but it is later not made prominent in (6).
- 4.3 This observation also concurs with Kang (1995).

**5. Tones are less frequently found in Korean compared with English, and are generally applied only at the end of sentences or utterances demarcated by pauses.**

For example:

- 5.1 In (1), (2) and (4), the tones fall only on the final syllable (marked by a box border), of sentences or utterances demarcated by pauses (\*).

**6. The falling tone (?) was predominantly used for “Yes” responses in the Korean dialogue, in contrast with the rising tone (?), which was predominantly used for “Yes” responses in the corresponding English dialogue.**

For example:

B: // →geu-r'ni-ga // ↗je-ga ji-geum / shik-dang-e iss-seu-ni-gga // 7  
 (So then) (I) (now) (restaurant-at) (am-since)

*(So then, since I'm at the restaurant)*

A: // ↘ne // 8  
 (Yes.)

B: // →shik-dang-e-seo // \*// yo-reun-ijok //  
 (restaurant-at) (right-to the)

9

(At the restaurant, to the right)

A: // ne //  
 (Yes.)

10

- 6.1 The falling tone (?) is found with each of these ‘Yes’ responses in (8) and (10). Interesting to note, if the same “Yes” responses were spoken with the falling tone (?) in English, the speaker could seem to sound aloof, uninterested or unfriendly.

### 7. The fall-rise tone was virtually absent in the Korean data from this study.

This serendipitous finding contrasts with the fact that the unmarked referring tone is ubiquitous in English speech.

#### Possible Implications for English Language Teaching

While it cannot be said for certain whether there is significant L1 transference of intonation patterns when speaking a foreign language (see Hewings, 1995), the following implications of the study’s findings could tentatively be considered for Korean, female, in particular, English language learners:

- Some learners may benefit from an awareness of their fixed Korean patterns of stress and intonation, and how these contrast with intonation patterns in English.
- Some learners may benefit from learning that tones rather than prominence are used in English to signal that information is “new.”
- Some learners may benefit from practice of tone production, especially the fall-rise tone, as they may not be accustomed to producing tones very regularly in their speech.
- Some learners may benefit from contrasting the meaning and effect of the falling and rising tones used with “Yes” responses, both in English and Korean.
- Some learners may benefit from learning about the significance of the unmarked referring tone in English.

#### Conclusion: Brazil’s Model for Contrastive Analyses of Intonation

It is Brazil’s categories of meaningful choices in intonation that makes this contrastive study of English and Korean intonation possible. Because of the differences between English and Korean intonation, a direct, phonetic feature-to-feature comparison would not have been productive. It would not have been helpful, for example, simply to compare the meaning of the rising tone (?) in English with that of the rising tone (?) in Korean. What did help was consider the *significance* or *meaning behind the choice* made between the rising (?) and falling (?) tones in English, and see whether that significance or meaning is also expressed by means of an either-or tone choice in Korean. Similarly, it would have been less useful to compare

prominence defined as “stress or accent” in English with that in Korean. Instead, what helped was comparing *prominence as a choice* in English and Korean.

1. This unit bears a pitch contour similar to what Park (1997) described as the “basic tone melody” in Korean, and what Jun (1993) represented as LHLH<sup>3</sup> (L=lower pitches or fundamental frequencies, “F0”; H=higher pitches or fundamental frequencies, “F0”). Lee (1990) described this contour as the “pitch pattern overlaid on each rhythm unit” and called it a “phrasal tone,” hence, the term “phrasal tone unit” (PTU).

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