

A Note on Phrasing in Korean and Japanese

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O. Introduction

The aim of this paper is to consider an aspect of syntax-phonology interface, phonological phrasing phenomena in Korean and Japanese. In section 1, I will briefly review Selkirk's (1986) end-based theory and Cho's (1990) argument of the phrasing in Korean. In section 2, I will show the phrasing of the parallel structures in Japanese. Section 3 is the discussion of the nature of phrasing in Korean and Japanese.

The conclusion I will present is that Cho's argument against the end-based theory is not compelling for the left-branching languages such as Korean and Japanese.

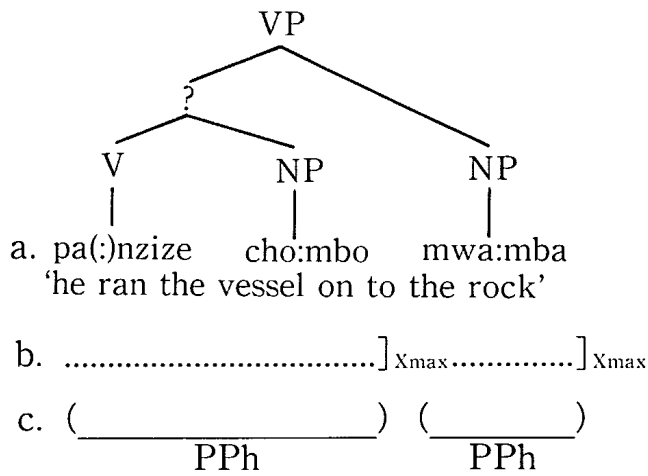
1. The End-Based Theory and Korean Phrasing

Selkirk (1986) argues that phonological phrasing can be predicted by the end-based theory, which can be summarized as in the following algorithm:¹

- (1) a. x_{\max} [...
b. ...] x_{\max}

The phrasing position (1) is parameterized so that a language chooses the left (1a) or right (1b) end of a maximal projection as a phrasing boundary. Selkirk gives an example from Chi Mwi:ni, which chooses the right end setting (1b). If we apply (1b) to the sentence (2a), we get the correct phrasing (2c):

(2)



(Selkirk 1986: 390)

Cho (1990: 53) considers sentences involving complex NPs and argues that the assumptions of end-based theory should be modified:²

- (3) a. [[John][saw [the cat [that [caught [the rat [that [stole [the cheese]]]]]]]]]]
 [John saw the cat][that caught the rat][that stole the cheese]
]x".....]x"
- b. [[na-nin][[[[[[[[koyaji-lil] c*oc-nin] kaŋaci-lil] t*æli-n]
 I-Top cat-Acc chase-Rel puppy-Acc beat-Rel
 salam-il] poassta.]]]
 man-Acc saw
 [na-nin][koyjiril c*onnin][kaŋajiril t*ærin][salamil boatt*a]
 x"[..... x"[.....
 'I saw a man who beat the puppy that was chasing the cat.'

Since the end-based theory wrongly predicts only two phrases for both English and Korean, Cho proposes the condition that S' obligatorily starts a new phrase. This condition, however, is too strong for the following Korean sentence, as Cho points out:

- (4) a. [[John][saw [a cat [that [was smiling.]]]]]
 [John][saw a cat][that was smiling]
]x" s[.....]x"
- b. [[Suni-nin][[[[us-nin]] koyaji-lil] poass-ta.]]]]
 Suni-Top smile-Rel cat-Acc saw
 *[Suninin][unnin][koyajiril boat*ta] (not acceptable)
 [Suninin][unnin goyaniril][poat*ta] (actual phrasing)
 x"[..... x"[.....]s[.....]

Thus, Cho concludes that an immediate solution is not available within the end-based theory.

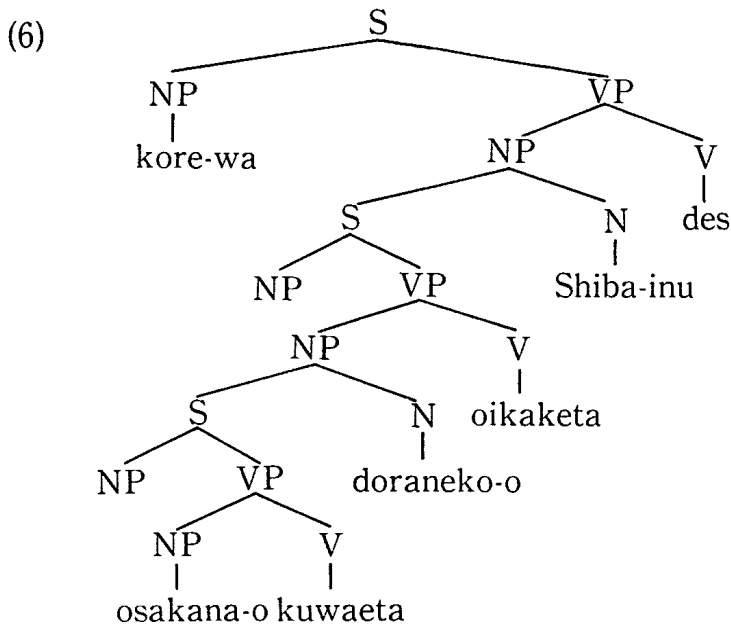
2. Japanese Phrasing

First, let us consider the parallel sentence to (3) in Japanese:

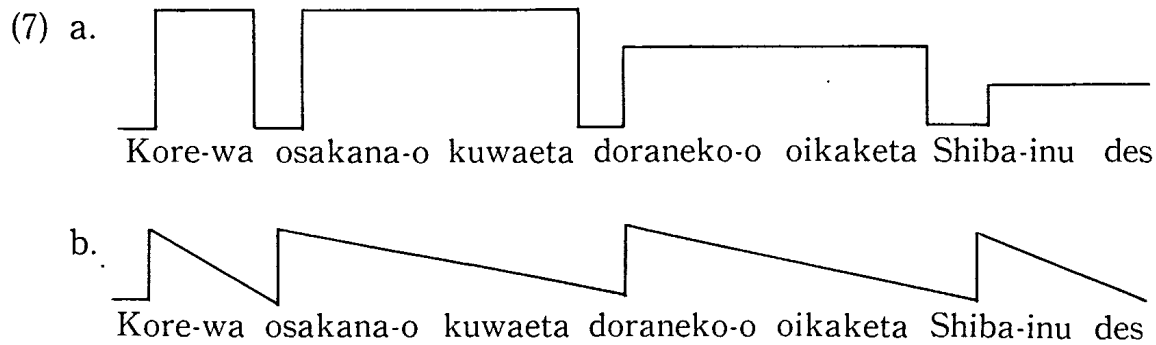
- (5) [[kore-wa][[[[[[osakana-o kuwaeta] doraneko-o]
 this-Top fish-Acc held in mouth-Rel stray cat-Acc
 oikaketa] Shiba-inu] des.]]]
 chased-Rel Shiba-dog is

‘This is the Shiba-dog that chased the stray cat that held a fish in its mouth.’

The syntactic structure of (5) is roughly shown in (6):



Selkirk and Tateishi (1991) show that Japanese has two levels of phrasing, i.e. Major Phrase and Minor Phrase, and that the former is characterized by Downstep and the latter by Initial Lowering. The patterns of Downstep and Initial Lowering are shown in (7a) and (7b), respectively:



According to these patterns, the Major Phrasing and the Minor Phrasing of the sentence are (8a) and (8b), respectively:

- (8) a. [kore-wa][osakana-o kuwaeta doraneko-o oikaketa Shiba-inu des]
 x" [..... x" [.....]
 b. [kore-wa][osakana-o kuwaeta][doraneko-o oikaketa]
 [Shiba-inu des]

Selkirk and Tateishi (1991) propose (9) as the parameterized rule of the syntax-prosodic structure mapping for Japanese:

(9) Major Phrase: {Left, XP}

The rule (9) correctly predicts the Major Phrases in (8a). Note also that the Minor Phrasing in (8b) does not violate any constraints which are proposed by Selkirk and Tateishi (1988), such as the Peripherality Constraint, the Accent Condition, and the Ternary Branching Condition.

Now let us turn to the parallel Japanese sentence to (4):

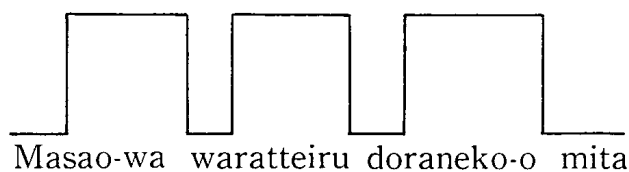
(10) [Masao-wa][[waratteiru doraneko-o] mita.]

Masao-Nom smile-Rel stray cat-Acc saw

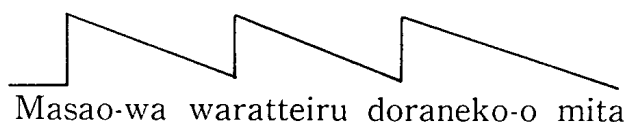
'Masao saw a stray cat that was smiling.'

The patterns of Downstep and Initial Lowering are (11a) and (11b), respectively:

(11) a.



b.



Thus the Major Phrasing and the Minor Phrasing of (11) are the same, as shown in (12a) and (12b), respectively:

(12) a. [Masao-wa][waratteiru][doraneko-o mita]

xⁿ[..... xⁿ[.....]s.....

b. [Masao-wa][waratteiru][doraneko-o mita]

Together with the condition that S' obligatorily starts a new phrase, the end-based theory correctly predicts the phrasing in sentences involving complex NPs in Japanese.

3. Discussion

Since both Korean and Japanese are left-branching languages, we

expect they are similar also in phonological phrasing. The data (3b) vs. (8a) and (4b) vs. (12a), however, show that Korean phrasing is different from Japanese Major Phrasing:

(13) a. [na-nin] [koyɲiril c*onnin] [kaɲajiril t*ærin]
 [salamil boatt*a] (=3b)

b. [kore-wa] [osakana-o kuwaeta doraneko-o oikaketa
 Shiba-inu des] (=8a)

(14) a. [Suninin] [unnin goyaniril] [poat*ta] (=4b)

b. [Masao-wa] [waratteiru] [doraneko-o mita] (=12a)

A solution to this problem is to consider Korean phrasing as Minor Phrasing, a level of phrasing that is purely phonological and not syntactic. Korean phrasing (3b) is in fact similar to Japanese Minor Phrasing (8b):

(15) a. [na-nin] [koyɲiril c*onnin] [kaɲajiril t*ærin]
 [salamil boatt*a] (=3b)

b. [kore-wa] [osakana-o kuwaeta] [doraneko-o oikaketa]
 [Shiba-inu des] (=8b)

One might argue that Korean (4b) does not show the similar phrasing to Japanese Minor Phrasing (12b):

(16) a. [Suninin] [unnin goyaniril] [poat*ta] (=4b)

b. [Masao-wa] [waratteiru] [doraneko-o mita] (=12b)

Japanese Minor Phrasing, however, has some variability, as Selkirk and Tateishi (1988) point out. If we change some words in (12b), we may have the same (Minor) phrasing as Korean (4b):

(17) a. [[Masao-wa] [[[warau] neko-o] mitsumeteita]]

Masao-Nom smile-Rel cat-Acc was looking at
 'Masao was looking at the cat that smiled.'

[Masao-wa] [warau neko-o] [mitsumeteita]

b. [Suninin] [unnin goyaniril] [poat*ta] (=4b)

Note that this change in phrasing is triggered not by the change in syntactic structure but by the change in the length of constituents. Thus, we have another support to the claim that Japanese Minor Phrasing is not syntactic but purely phonological (cf. Selkirk and Tateishi 1988).

4. Conclusion

If we take Korean phrasing as purely phonological, as Japanese Minor Phrasing is, Cho's argument that Korean data become counter-evidence to the end-base theory (and the direct syntax approach by Kaisse 1985) does not hold. The end-based theory and the direct syntax approach refer only to syntax-phonology interface (Major Phrasing), and not to purely phonological phenomena (Minor Phrasing). We need further facts to decide which is the best theory for syntax-phonology interface.

Notes

* I would like to thank Ellen Kaisse and Irene Vogel for their valuable comments and suggestions. Needless to say, all remaining inadequacies are my own. This work was supported by a grant from Sapporo University (1993) and a grant from the Ministry of Education (1993).

¹ I will use X_{max} , X'' , and XP interchangeably for the maximal projection of X.

² Cho (1990) also discusses the relation-based theory (Nespor and Vogel 1986, among others) and the direct syntax approach (Kaisse 1985), which I will not discuss here.

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