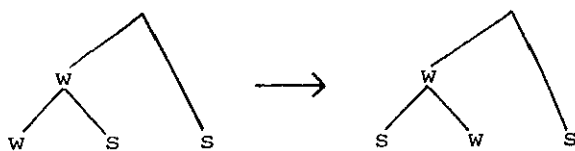


The Rhythm Rule and Latinate Prefix-Stem Adjectives\*

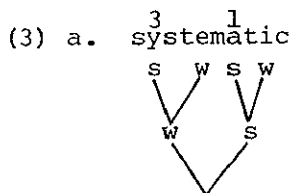
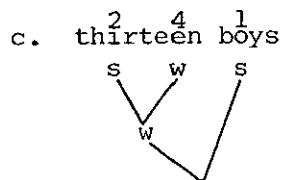
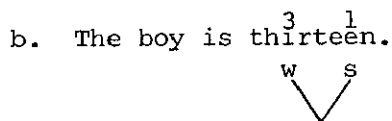
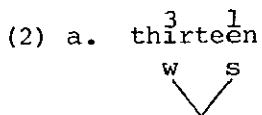
Yukio Hirose

It is now commonly known that the Rhythm Rule, given in (1), is responsible for the stress retraction observed in (2c) and (3c):

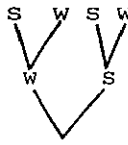
(1)



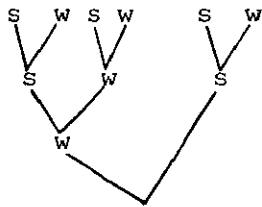
(Kiparsky, 1979, p. 424)



b. The grammar is <sup>3</sup>systematic<sup>1</sup>.



c. <sup>2</sup>systematic<sup>4</sup> <sup>1</sup>grammar



While the adjectives thirteen and systematic preserve their normal stress patterns (cf. (2a), (3a)) when used predicatively (cf. (2b), (3b)), they exhibit stress retraction when used attributively (cf. (2c), (3c))--to be more exact, when they are immediately or closely followed by a stronger stress.

In this connection, we should keep the following two points in mind. First, while lexical items that appear in a predicative position are preceded by verbs including be, ones that appear in an attributive position are followed by nouns. Second, as has often been pointed out (cf. Ross (1973), Hirose (1978), etc.), verbs in general have rightward stress, whereas nouns in general have leftward stress. From these two points we may say, with respect to the phonetic effect described in (1), that when adjectives are used attributively, the Rhythm Rule will change their stress patterns into the noun-like pattern with leftward stress. In contrast, when adjectives are used predicatively--in which case the Rhythm Rule does not apply, as is seen in (2b) and (3b)--they might be affected in their stress patterns by

verbs, thus generally exhibiting the verb-like pattern with rightward stress.

A lot of adjectives can occur in both an attributive and a predicative position. Suppose, however, that certain adjectives appear more often in the former. Then, they may become generalized with the stress pattern of the attributive use, i.e. the noun-like pattern with leftward stress. The adjective certain, which is frequently used attributively, is a case in point here. This adjective is of Latin origin and is closely correlated with the verb ascertain, where primary stress is on the last syllable. In contrast, certain has initial stress and no final stress. This seems to be because the rhythmic factor involved has brought about the permanent change of stress in the word. The same may be true of Latinate adjective/verb pairs such as:

- (4)  $\overset{1}{p}erfect_A / \overset{1}{p}erf\acute{e}ct_V$   
 $\overset{1}{f}r\acute{e}quent_A / \overset{1}{f}requ\acute{e}nt_V$   
 $\overset{1}{p}r\acute{e}s\acute{e}nt_A / \overset{1}{p}r\acute{e}s\acute{e}nt_V$

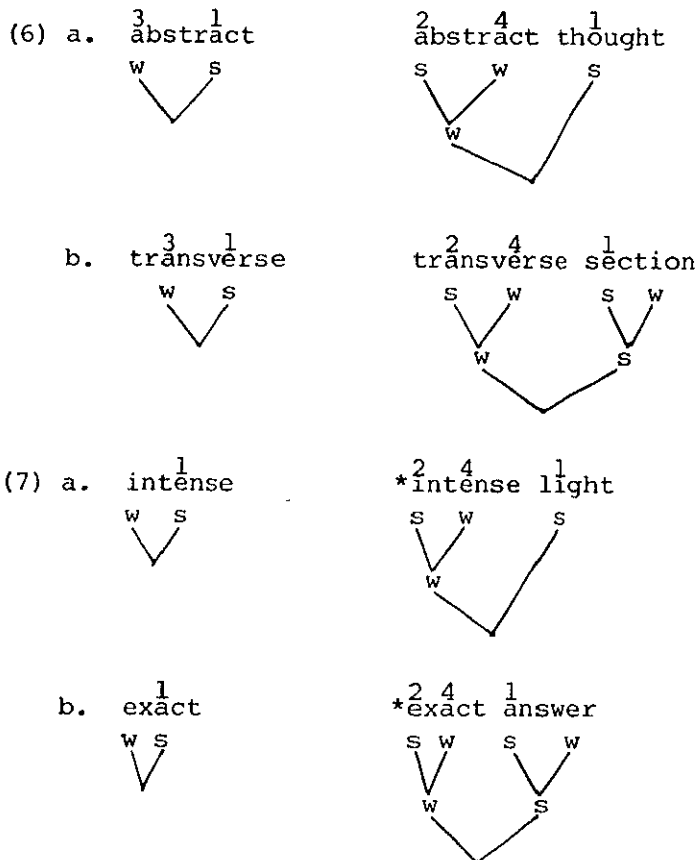
where the adjectives have initial stress while the verbs have final stress.

On the other hand, if certain adjectives occur more often in a predicative position, then they may become generalized with, or preserve, the stress pattern of the predicative use, i.e. the verb-like pattern with rightward stress. For example, the adjectives in (5) are normally used only predicatively and hence frozen with final stress:

(5) afráid      alíke      exémp̄t

This observation provides some grounds for Ross's (1973, p. 163, fn. 6) speculation that primary stress in adjectives is "between" primary stress for verbs and primary stress for nouns.<sup>1</sup>

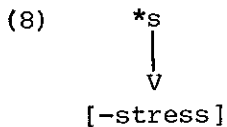
Let us now consider Latinate prefix-stem adjectives, which generally have final stress just like verbs of the same origin and form. First, compare (6) and (7):



The adjectives in (6) are subject to the Rhythm Rule and

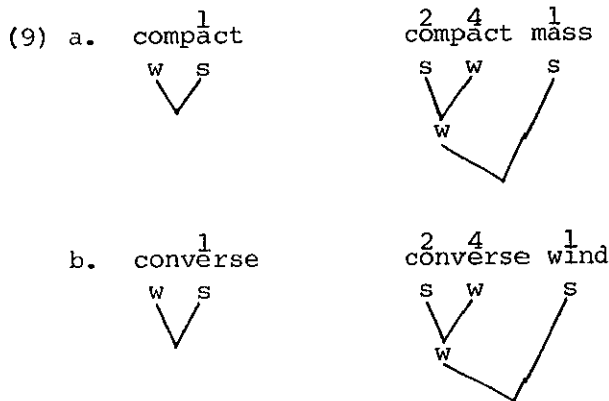
undergo stress retraction. But the same is not true of the adjectives in (7). Why not?

With respect to the Rhythm Rule (1), Kiparsky (1979, p. 425) says: "It does not apply when the input w is a terminal element dominating an unstressed syllable," which follows from Liberman and Prince's (1977, p. 265) well-formedness condition on metrical structures:



This restriction accounts for such cases as (7);<sup>2</sup> in other words, the adjectives in (7) are not subject to the Rhythm Rule because, unlike those in (6), they have no tertiary stress preceding primary stress.

But what about the following?



These adjectives have no more initial stress than those in (7) above. Nevertheless, stress retraction is not impossible, or rather, is preferred in the case of (9) (cf. Kenyon and Knott (1953)). Why is it that the adjectives in (9) exhibit

stress retraction when used attributively despite their violation of the well-formedness condition (8)?

This question will lead us virtually to ask what substantial difference lies between the adjectives in (7) and those in (9). It should be noted here that while the former adjectives do not have the corresponding (homophonous) nouns like  $\overset{1}{\text{intense}}\overset{3}{\text{N}}$ ,  $\overset{1}{\text{exact}}\overset{3}{\text{N}}$ , the latter do have the corresponding nouns  $\overset{1}{\text{compact}}\overset{3}{\text{N}}$  and  $\overset{1}{\text{converse}}\overset{3}{\text{N}}$  as well as the corresponding verbs  $\overset{1}{\text{compact}}\overset{3}{\text{V}}$  and  $\overset{1}{\text{converse}}\overset{3}{\text{V}}$ . Moreover, these nouns have initial primary stress. It thus follows that whether or not the corresponding nouns exist bears on whether or not those adjectives that are not expected to be subject to the Rhythm Rule undergo stress retraction.

In other words, the very existence of the corresponding nouns makes it possible for the adjectives in (9) to exhibit stress retraction (i.e. the noun-like leftward-stress pattern) when they appear in the attributive position.<sup>3</sup> Here again, Ross's speculation mentioned above is in order: primary stress in adjectives is "between" primary stress for verbs and primary stress for nouns.

More specifically, if adjectives have the corresponding (homophonous) noun/verb pairs in which the noun has leftward stress and the verb rightward stress, then they can display either the noun-like or the verb-like stress pattern in accordance with speech rhythm. These cases, however, are limited in number and, as far as I know, they are all Latinate prefix-stem adjectives. Besides those in (9), we have such adjectives as the following:

- (10) concrète<sup>1</sup> (cf. cōncrète<sup>3</sup><sub>N</sub>/concrète<sup>1</sup><sub>V</sub>)  
 complèx<sup>1</sup> (cf. cōmplèx<sup>3</sup><sub>N</sub>/complèx<sup>1</sup><sub>V</sub>)  
 compōund<sup>1</sup> (cf. cōmpōund<sup>3</sup><sub>N</sub>/compōund<sup>1</sup><sub>V</sub>)

From these considerations follows a "marked" principle like this:

- (11) Latinate prefix-stem adjectives with rightward stress which are not expected to be subject to the Rhythm Rule because of the restriction (8) may exhibit stress retraction if and only if they have the corresponding homophonous nouns with leftward stress.

This accounts for not only the stress retraction exemplified in (9)<sup>4</sup> but also the contrast between (7) and (9).<sup>5</sup>

#### NOTES

\* I would like to thank Shosuke Haraguchi, Koji Ono, Masayuki Ota, Masaki Sano, and Shoichi Tanaka for valuable comments and criticisms on an earlier version of this paper.

<sup>1</sup> For fuller discussion, see Hirose (1978).

<sup>2</sup> See also Liberman and Prince (1977, p. 285).

<sup>3</sup> In parallel, it is safe to say that these adjectives exhibit the verb-like rightward-stress pattern when they appear in a predicative position.

<sup>4</sup> Ota (1980) presents a historical approach to similar phenomena. But I am not sure whether his approach holds good for Present-day English.

<sup>5</sup> Shoichi Tanaka has pointed out to me that principle (11) cannot account for such examples as the following, which he draws from Kenyon and Knott (1953):

- (i)  $\overset{2}{c}\overset{4}{o}\overset{1}{n}\overset{1}{d}\overset{1}{i}\overset{1}{g}\overset{1}{n}$   $\overset{1}{c}\overset{1}{e}\overset{1}{n}\overset{1}{s}\overset{1}{u}\overset{1}{r}\overset{1}{e}$   
 $\overset{2}{e}\overset{4}{n}\overset{1}{t}\overset{1}{i}\overset{1}{r}\overset{1}{e}$   $\overset{1}{l}\overset{1}{e}\overset{1}{n}\overset{1}{g}\overset{1}{t}\overset{1}{h}$   
 the  $\overset{2}{e}\overset{4}{x}\overset{1}{t}\overset{1}{r}\overset{1}{e}\overset{1}{m}\overset{1}{e}$   $\overset{1}{v}\overset{1}{e}\overset{1}{r}\overset{1}{g}\overset{1}{e}$

The adjectives in (i) normally have the stress patterns  $\overset{1}{c}\overset{1}{o}\overset{1}{n}\overset{1}{d}\overset{1}{i}\overset{1}{g}\overset{1}{n}$ ,  $\overset{1}{e}\overset{1}{n}\overset{1}{t}\overset{1}{i}\overset{1}{r}\overset{1}{e}$ , and  $\overset{1}{e}\overset{1}{x}\overset{1}{t}\overset{1}{r}\overset{1}{e}\overset{1}{m}\overset{1}{e}$ , respectively, where there is no initial stress. According to Tanaka's research, furthermore, these adjectives do not have the corresponding nouns with leftward stress:  $\overset{1}{c}\overset{3}{o}\overset{3}{n}\overset{3}{d}\overset{3}{i}\overset{3}{g}\overset{3}{n}$ ,  $\overset{1}{e}\overset{3}{n}\overset{3}{t}\overset{3}{i}\overset{3}{r}\overset{3}{e}$ , and  $\overset{1}{e}\overset{3}{x}\overset{3}{t}\overset{3}{r}\overset{3}{e}\overset{3}{m}\overset{3}{e}$ . I have no idea how to handle these cases at present. In any case, because of the examples in (i), the "if and only if" condition in (11) must be weakened to an "if" condition.

#### REFERENCES

- Hirose, Y. 1978. "Alternate stress patterns of English words."  
 Unpublished BA thesis, University of Tsukuba.
- Kenyon, J. S. and T. A. Knott. 1953. A pronouncing dictionary of American English. Springfield, Mass.: Merriam.
- Kiparsky, P. 1979. "Metrical structure assignment is cyclic,"  
Linguistic Inquiry 10:3. 421-41.
- Liberman, M. and A. Prince. 1977. "On stress and linguistic rhythm," Linguistic Inquiry 8:2. 249-336.
- Ota, M. 1980. "A study of rhythm and stress in English."  
 Unpublished BA thesis, University of Tsukuba.



Ross, J. R. 1973. "Leftward ho!" in S. R. Anderson and P. Kiparsky (eds.) A Festschrift for Morris Halle. 166-73. New York: Holt, Rinehart and Winston.