

u-Apocope in Old English

Lee, Young-Ok

I

As the inflectional rules of Old English lie at the intersection of the syntactic and phonological components of its grammar and are an especially good place to study the interaction between them, much theoretical discussion has recently been centered around them. For one, the purpose of Kiparsky and O'Neil (1976) is to argue for their more concrete solution of the various problems arising around the inflectional system of Old English against Keyser (1975)'s more abstract solution based on the hypothetical Vowel Metathesis. While the solution of Kiparsky and O'Neil relies on the kind of assumption that is not so concrete, there is another proponent for abstract theory of phonology in accounting for the inflectional system of Old English—Dresher (1978).

Though the purpose of this paper is not to argue for or against the abstractness of general phonological theory but to attempt to account for an aspect of Old English inflectional system, *u*-Apocope, it is inevitable to take into consideration of the theoretical framework that guides a certain problem toward the solution that is the most natural and the most consistent with the given facts. In the course of looking for such a solution for the problems around *u*-Apocope, the framework of Natural Generative Phonology suggested by such phonologists as Vennemann, Stampe, and Hooper was found to be the right one. The present paper adopts the theory of Hooper (1976) in particular.

II

The phonological process of *u*-Apocope has traditionally been investigated to be the one directly related to the weight of the preceding syllables. A syllable is said to be light or short when it contains a short vowel or short diphthong followed by a single consonant. On the other hand, a syllable is said to be heavy or long when it contains a long vowel or long diphthong, or a short vowel or short diphthong followed by more than one consonant. Thus, as shown in the following paradigms, monosyllable neuters have the ending *-u* in the Nom. Acc. Plur. when, as in *lim*, the stem of the word is a short syllable; they are without ending in the Nom. Acc. Plur. when, as in *bān* and *word*, the stem is a long syllable.

(1) Sing.	'limb'	'bone'	'word'
Nom.	lim	bān	word
Gen.	limes	bānes	wordes
Dat.	lime	bāne	worde

Acc.	lim	bān	word
Plur.			
Nom., Acc.	limu	bān	word
Gen.	lima	bāna	worda
Dat.	limum	bānum	wordum

Similar variation occurs in the inflectional ending of Nom. Sing. of feminines.

Thus, for monosyllabic words the rule for the deletion of inflectional ending *-u* may roughly be formulated as follows:

$$(2) \left[\begin{array}{l} +\text{high} \\ -\text{cons} \end{array} \right] \rightarrow \phi / \left\{ \begin{array}{l} \bar{V}C \\ VCC \end{array} \right\} \text{ —————}$$

Though in (2) two rules are combined with the brace notation, the combination does not express any linguistically significant generalization; the reason for the equivalence of $\bar{V}C$ with VCC is not accounted for with the rule (2) alone. For the same reason Drescher's formulation of the rule as (3) may be estimated to be insufficient.

$$(3) \left[\begin{array}{l} +\text{syll} \\ +\text{high} \end{array} \right] \rightarrow \phi / \left\{ \begin{array}{l} \bar{V}(\bar{\sigma})C \\ \bar{V}(\bar{\sigma})CC_1 \end{array} \right\} (\#) \text{ ————— } (CVX)\#$$

Taking slight modification in details out of account we can say that the two rules (2) and (3) are basically the same.

Now it is advisable to turn our attention to the basic reason that such a phenomenon of *u*-Apocope, which is a purely phonological process, occurs. We may regard *u*-Apocope as a purely phonological process on the basis of the fact that in other endings such variation of occurrence as in *u* is not altogether investigated. The endings designating the Gen. Dat. are invariant whether or not they are preceded by long or short syllables. As such a phonological process is to be given independent phonological explanation as well as the one appealing to the dynamics of historical or dialectal change, here we will attempt to look for some phonological factors that bring about *u*-Apocope. Universal syllable structure condition presented in Hooper (1976) is more than suggestive in this connection. Hooper has established the following condition on syllable structures:

(4) Universal condition on preferred syllable structure:

$$P(C): \$ C_m C_n C_p C_q V C_r C_s C_t \$$$

$$\text{Where } m > n > p > q$$

$$t > s > r$$

$$m > t$$

$$m \neq \phi$$

(4) is established on the assumption that all processes whose sole raison d'être is to alter syllable structure—i.e., consonant weakening, strengthening, insertion and deletion rules, and vowel insertion and deletion rules¹⁾—create syllable structure that conforms to

1) Hooper (1976: 229) did not mention vowel deletion for unknown reason, but the process of vowel deletion surely alters the syllable structure.

it. The condition states that the syllable structure condition for any given language has a uniform shape: the C's are on the margins, and an obligatory V (or [+syllabic] segment) makes up the nucleus. The consonantal hierarchy of strength postulated as a basis of the above syllable structure condition is as follows:

glides	liquids	nasals	voiced continuant	voiceless continuant voiced stop	voiceless stop
1	2	3	4	5	6

According to the universal condition on preferred syllable structure with reference to the above consonantal hierarchy of strength, the strength scale values for the various C (consonant) positions should descend from syllable-initial position inward toward the nucleus and also descend from syllable-final position inward toward the nucleus.

Though Hooper emphasizes that the condition $m > t$ is not a necessity condition, i.e., the syllable-initial C must be stronger than the syllable-final C, but a possibility condition, i.e., the strongest C permitted in syllable-initial position must be stronger than the strongest C permitted in syllable-final position, it remains true that phonological processes altering syllable structure have the directionality toward better syllable structure condition.

Now we are suggesting that we can more naturally and consistently account for the process of *u*-Apocope in Old English making use of the universal syllable structure condition. At first, we should recognize that the traditional notion of heaviness of syllable, though hard to collapse the two different sequences as they stand— $\bar{V}C$ and VCC —into a single formula as a kind of natural class, does have a deep connection with the process of *u*-Apocope. Only if we can find a way to collapse the two apparently distinct sequences that equally bring about the deletion of the following word-final *u*, there is no reason to reject the notion of heaviness of syllable.

According to Lass and Anderson (1975), Old English long vowels are basically divocalic segments; if their assertion is true, the sequence $\bar{V}C$ is to be rewritten as VVC . On the other hand, with respect to the syllable structure condition a syllable cannot contain double vowels. The sequence of VVC , as well as diphthong, ought to be treated as a vowel preceded or followed by a glide—a syllable nucleus consists of one vowel. Thus, the sequence of $\bar{V}C$ may be analyzed as VVC and in turn as VCC , the C immediately following V being a glide.

In the treatment of diphthongs we should distinguish two different types of them: on-glide and off-glide. Diphthongs resulted from Breaking that occurred at an early period of Prehistoric Old English such as *ea* in *weorþ* (3 Sg. Pret. of *weorþan* 'to become'), *eo* in *seolh* (m. 'seal'), and *io* in *wiorþiþ* (3 Sg. Pres. of *wiorþan* which later became *weorþan*) are to be regarded as off-glide because a new vocalic segment has been attached at the end of the original vowel *æ*, *e*, and *i*. On the other hand, diphthongs resulted from Palatal Diphthongization that took place at a period of Prehistoric Old English should be treated as on-glide. For example, *e* in *cealf*/*čealf*/(n. calf) and *i* in *scieppan*/*šjeppan*/'create')

have been attached before *æ* and *e* under the influence of preceding initial palatals. Thus, the syllable containing on-glide should be analyzed as CV.

With this reanalysis of long vowels and diphthongs we can collapse the two separate sequences labelled as heavy syllable that act as the environment of *u*-Apocope into a single one VCC and accordingly the rule of *u*-Apocope may be formulated as follows:

$$(5) \begin{bmatrix} +\text{high} \\ -\text{cons} \end{bmatrix} \rightarrow \phi / \text{VCC}_1 \text{ ______}$$

This improvement of the formulation of rule, however, does not count much unless it is possible to show on the basis of such a formulation that the rule *u*-Apocope that alters syllable structure creates as a result a new syllable structure that is improved with respect to the universal syllable structure condition. As can be immediately noticed in comparison with (4), the universal syllable structure condition, the output of rule (5) has much worse syllable structure than its input—VCCC*u*—which may be analyzed as containing two syllables with the syllable boundary between the two C's like: VC\$Cu. Moreover, other inflectional endings constituted of single vowel like *-e* of Dat. Sing. and *-a* of Gen. Plur., for example, are not deleted at all, which raises a significant problem in treating the *u*-Apocope in terms of universal syllable structure condition.

Now it is necessary to look more closely the nature of the word-final *u* mainly toward the possibility or necessity of treating it distinctively from an ordinary vowel. Concerning the behavior of word-final *u* Dresher is arrived at the following noteworthy conclusion:

...word-final *u* acts as if it were not a vowel, or even, as if it were not in the string at all. (142)

With this characterization of word-final *u* he postulates a special rule which specifies that final *u* is attached to stems by a # boundary. However, it is no more than an ad hoc device to put # only before final *u* excluding other inflectional endings that have the same morphological status.

Now our suggestion is that word-final *u* is not a vowel but a glide *w* in the underlying representation and that *w* is later converted to *u* by a rule of syllabification which is independently motivated in order to account for such changes as **farjan* > *ferian*, **nærjan* > *nerian*. Then, the deletion of word-final *u*, in the underlying representation nonsyllabic *w*, is naturally accounted for in terms of the universal syllable structure condition. In addition, the retention of other word-final vowel endings is naturally accounted for. Though its hierarchical order is the lowest in the consonant strength scale, the effect of strengthening is resulted from the addition of a glide at the end of a syllable. Thus, it is natural for heavy syllables of VCC pattern to reject the attachment of additional nonsyllabic segment which cannot stand independently of the preceding syllable.

Apparent problems with this analysis arise in the case of monosyllabic words with short diphthong like *geat* (n. 'gate') and *giefu* (f. 'gift, grace') which retain the inflectional ending *u* in Nom. Acc. Plur. and Nom. Sing., respectively. However, diphthongs in these words are rising diphthongs with on-glide discussed above as being resulted from Palatal

Diphthongization and thus should be analyzed as -CV-. Accordingly, these words do not satisfy the structural condition of (5).

Our real problem turns up if we attempt to apply a similar principle, i.e., the universal condition on preferred syllable structure to the case of Breaking, another Old English phonological rule as this rule alters the syllable structure by inserting a glide similar in quality with *u* between front vowels and consonant cluster beginning with liquids or between front vowels and *h*. (Consider the examples illustrated above.) In the case of consonant cluster, addition of a glide would make worse the syllable structure and this process really occurred in Breaking. Our answer to this problem is that a certain phonological process may for a particular reason override the syllable structure condition which is not a necessity condition but a possibility condition, but after a certain period of time other changes will take place, and the preferred syllable structure will be reinstated at last. Its typical example is: **hœlp* > *healp* > *help*.

III

In the case of polysyllable the *u*~ ϕ alternation occurs in unpredictable fashion, as Drescher investigated. In fact, the universal syllable structure condition does not provide any satisfactory explanation for the Nom. Acc. Plur. of neuters like *hēafdu* (n. 'head') and *werod* (n. 'multitude, troop, army'), the latter of which is traditionally regarded as heavy²⁾ as well as the former. These are later in history converted to *hēafod* and *werodu*, thus making inert any explanation based on phonological dynamics.

Though Kiparsky and O'Neil attempt to account for the presence of *u* in *hēafodu* and the absence of *u* in *werod* making use of Strong Marking and Weak Deletion, their solution is as awkward as the traditional one they tried to replace with their solution. First, they assume Strong Marking rule that is said to mark a certain segment with a feature [+strong] without giving any convincing answer to the question why word-final *u* in *wordu*, the underlying representation of *word*, Nom. Acc. Plur. of *word*, as they assumed, is not marked as [+strong] while *u* in *limu* is marked as [+strong]. Moreover, whatever the exact nature may be, the feature strong should be assigned at least to the form the syllable structure of which would not be altered any further by subsequent rules, for the fluctuating tonal regularity resulted from the alternating value of strong between adjacent syllabic segments²⁾ is to remain in the surface form. Strong Marking of Kiparsky and O'Neil, however, applies before Weak Deletion which alters the syllable structure and simultaneously destroys the fluctuating tonal pattern resulted from Strong Marking.

As for *cynn* (n. kind. sort; kin) and *wittu* (n. Nom. Acc. Plur. of *witte*, 'punishment; woe'), Nom. Acc. Plur. of *ja*-stem neuters, we can more naturally give an explanation without making use of Strong Marking—Weak Deletion. As their underlying form may be

2) If the notion of Strongness should make any sense, the feature [strong] should be assigned only to syllabic segments excluding glides.

/k^hun-y-u/ and /w^hit-y-u/ respectively, they satisfy the structural description of *u*-Apocope (5). However, before the application of (5) *kun-y-u* changes into *kynn-u* through Gemination and *i*-Umlaut. Then, *u* drops by the application of (5), resulting the correct *cynn*. In the case of *wit-y-u*, either *y* or *u* should be deleted with the from of (5). Here, we can always get the correct surface form by slightly modifying the rule as follows:

$$(6) \begin{bmatrix} +\text{high} \\ -\text{cons} \end{bmatrix} \rightarrow \phi / \text{VCC}_1 + \text{_____}$$

By postulating the morpheme boundary + after the consonant cluster, we are able to delete only *y* in *wit-y-u*.

N

In this paper I tried to resolve one of the most teasing problems in Old English phonology with Hooper's universal syllable structure condition. However, as this condition is established as a possibility condition rather than as a rigid necessity condition, it may always be open to easy attacks. Our only relief is in the recognition that there is no necessary and perpetual phenomenon and thus, truth in the world of human language.

REFERENCES

- Campbell, Alistair (1959). *Old English Grammar*, Oxford: Clarendon Press.
- Chomsky, Noam and Morris Halle (1968). *The Sound Pattern of English*, New York: Harper & Row, Publishers.
- Dresher, Bezalel Elan (1978). *Old English and the Theory of Phonology*, Ph. D. Diss., Univ. of Mass.
- Hooper, Joan B. (1976). *An Introduction to Natural Generative Phonology*, New York: Academic Press.
- Keyser, Samuel Jay (1975). "Metathesis and Old English Phonology," *Linguistic Inquiry* 6, 377-411.
- Kim, Suk-San (1978). "Some Questions of Old English Phonology," *Eoneohag: Journal of the Linguistic Society of Korea* 3, 37-45.
- _____(1980). "Old English *ie* and its Phonetic Identification," *English Language and Literature* 73, 171-194.
- Kiparsky, Paul and Wayne O'Neil (1976). "The Phonology of Old English Inflections," *Linguistic Inquiry* 7, 527-557.
- Lass and Anderson (1975). *Old English Phonology*, Camb.: Cambridge Univ. Press.
- Moore, Samuel and Thomas A. Knott (1965). *The Elements of Old English*, Ann Arbor: The George Wahr Publishing Co.
- Peinovich, Michael P. (1979). *Old English Noun Morphology*, Amsterdam: North-Holland Publishing Co.

경희대학교

문리과대학 영문학과