

SUBSEGMENTAL AFFIXATION MEETS OLD ENGLISH ABLAUT

The aim of this paper is to present a synchronic account of apophonic alternations found in Old English verbal stems and their interaction with two other processes: Breaking and Gemination.

I will argue that Old English (OE) ablaut is best analyzed as the integration of Clements and Hume (1995)-type vocalic nodes and moras into the underlying representation of the verbal stems. The said autosegments are the realization of categorizing v-heads merged with roots, which are themselves realized by verbal stems.

In order for the subsegmental affixation approach to work in as straightforward fashion as possible, I will claim that the vast majority of OE strong verbal stems were underspecified for vocalic nodes. Such an underspecification creates an interesting challenge for the subsegmental affixation account. In order for a v-head to be realized as an appropriate vocalic node, two types of information must be available: the grammatical context and the phonological representation of the root (assuming that vocabulary insertion proceeds in a root-outward fashion and roots are subject to late insertion). If stem vowels are underspecified for place of articulation, a situation may arise in which two verbs belonging to two different ablaut classes have the same underlying representations. In fact I found 12 such pairs of strong verbs (class division after Levin (1964)): *b/i:/dan* ‘await’ (Class 1) vs. *b/e:ʷ/dan* ‘command’ (Class 2); *b/i:/tan* ‘bite’ (1) vs. *b/æ:ʷ/tan* ‘beat’ (7); *dr/e:ʷ/gan* ‘do, suffer’ (2) vs. *dr/a/gan* ‘draw, drag’ (6); *dr/e:ʷ/pan* ‘drop, drip’ (2) vs. *dr/e/pan* ‘strike, kill’ (5); *fl/i:/tan* ‘struggle’ (1) vs. *fl/e:ʷ/tan* ‘float’ (2); *g/e:ʷ/tan* ‘pour’ (2) vs. *g/e/tan* ‘get’ (5); *l/u:/tan* ‘lout’ (2) vs. *l/æ:/tan* ‘let’ (6); *sc/i:/tan* ‘defecate’ (1) vs. *sc/e:ʷ/tan* ‘shoot’ (2); *sc/u:/fan* ‘shove’ (2) vs. *sc/a:/fan* ‘shave’ (6); *s/u:/can* ‘suck’ (2) vs. *s/a:/can* ‘argue’ (6); *l/u:/can* ‘lock’ (2) vs. *l/a:/can* ‘move about’ (7); *sw/i:/fan* ‘move’ (1) vs. *sw/e/fan* ‘sleep’ (5).

In 11 out of 12¹ pairs at least one of the verbs belongs either to class (2) or to class (7). The peculiar property that these two classes share is the unpredictable retraction and rounding visible on the front mid vowels. Such a retraction, which I will refer to as Breaking, is fully regular in the environment of the voiced velar fricative, /w/ and the rhotic, if it is found in the coda.² Taking into consideration that the /ɣ/ might well have already been weakened to an approximant, the three segments form a natural class that could be described as [+sonorant, grave].³

However, the majority of verbs from classes (2) and (7) show Breaking in the environment in which it is unexpected. I propose that those class 2 and class 7 verbs are exceptional in that their vowels are specified for vocalic nodes that dominate the feature [grave]. Additionally, class 7 stems are specified for feature [open]. The unexpected rounding and retraction is a residue of the lexical specification of the stems. This lexical specification also allows to differentiate between potentially homophonous stems and mandates the underspecification in the majority of OE strong verbs.

¹ The final pair *sw/i:/fan* ‘move’ (1) vs. *sw/e/fan* ‘sleep’ (5) has to be seen as a genuine exception.

² I take word-final consonants to form onsets of catalectic syllables.

³ I postulate the conflation in Old English of features [labial] and [dorsal] into a single feature [grave]. For other proposals which postulate the replacement of the features of labiality and dorsality with a single feature see Ségéral Scheer (1998) and Backley (2011) among others. See also Stockwell (2002) for the proposals whereby: the labiality involved in the pronunciation of the retroflex rhotic conditioned the labialization of the preceding vowel and the long /a:/ in OE was actually labialized. I adopt both those interpretations.

The front mid vowels which show the effects of Breaking are derived in class 7 stems by affixing vocalic nodes dominating features [coronal] (to derive /æ:^w/) and [coronal] dominating [-anterior] (to derive /e:^w/). For class 2 verbs the affixed vocalic node must also contain feature [open].

Yet another process which interacts with ablaut is Gemination accompanied by a shortening of the preceding vowel. It is a feature of a group of Levin's class 5 verbs, whose forms are illustrated in (1).

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| (1) | <i>hl/e/hhan - hl/o:/h - hl/o:/hon - hl/a/hen</i> 'laugh'
<i>h/e/bban - h/o:/f - h/o:/fon - h/a/fen</i> 'lift'
<i>sci/e/ppan - sc/o:/p - sc/o:/pon - sc/æ:^w/pen</i> 'create'
<i>sc/e/PPan - sc/o:/P - sc/o:/Pon - sc/æ:^w/Pen</i> 'injure'
<i>st/æ:/ppan - st/o:/p - st/o:/pon - st/æ:/pen</i> 'create' | As can be inferred from the Grade 3 and Grade 4 forms, the process cannot be understood as a degemination before word boundary. In order to accommodate the data in (1) I pro- |
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pose that the relevant stems have bimoraic and bisyllabic underlying structure with the final consonant attached to the second mora of the stem and functioning as the onset of the following catalectic syllable (2).

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| (2) | | Let us assume that apart from the vocalic node the realization of the v in Grade 1 is a mora prefix. A high ranked Realize Morpheme and No-line-crossing constraints force it to attach to the initial syllable, which, however results in an illicit configuration in which a syllable hosts 3 moras (* 3μ). The delinking of the mora to the right will result in a double violation of a constraint 'MAX -μ-•', which assigns a violation whenever an underlying link between a syllable and a root node is not realized on the surface. The delinking of the stem-initial mora violates this constraint only once: only the vocalic root node loses one of its connections with the syllable. Hence, the optimal candidate is the one with a doubly linked consonant and a short vowel. |
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In Grade 3 it is the root node marked for feature [+voc] that constitutes part of the suffix realizing v. Its integration violates a constraint against a mora dominating 3 root nodes. The constraint 'MAX -μ-•' cannot decide between the candidates, each of which loses one of the two underlying associations between the stem-final mora and the segments. It is the ranking of the constraints MAX μ-V > MAX μ-C that decides that the optimal candidate is the one with a doubly associated vowel and the consonant acting only as the onset of the following syllable.

Let us assume that the v-heads in Grade 4 of the relevant verbs are realized as a mora prefix and a •[+voc] suffix. On these assumptions the derivation of Grade 4 will involve the integration of the mora resulting in vowel shortening and the integration of the •[+voc], resulting in degemination.

References: Backley, P. (2011). *An Introduction to Element Theory*. Edinburgh: Edinburgh University Press. Clements G. and E. Hume (1995) "The internal organization of speech sounds." [In:] J. Goldsmith (ed.) *The handbook of phonological theory*. Cambridge, MA. and Oxford: Basil Blackwell; 245-306. Levin, S. R. (1964) "A Reclassification of the Old English Strong Verbs". [In:] *Language* Vol: 40; 156-161. Ségéral, P. and T. Scheer (1998) "A Generalized Theory of Ablaut: the Case of Modern German Strong Verbs." [In:] A. Ortmann, R. Fabri, T. Parodi. *Models of Inflection*. Tübingen: Niemeyer; 28-59. Stockwell, R. (2002) "Retraction and Rounding in Old English Breaking." [In:] D. Restle, D. Zaefferer (eds.) *Sounds and Systems. Studies in Structure and Change. A Feitschrift for Theo Venemann*. Berlin and New York: Mouton de Gruyter; 121-37.