Epenthetic Vowels at the Phonology-Morphosyntax Interface in Mohawk

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1. Epenthetic vowels (and stress assignment). Mohawk (Iroquoian, south-eastern Canada and north-eastern US) exhibits three epenthetic vowels which differ both in quality and function throughout individual words, as can be observed in 1) (underlined):

1a) *wak<u>é</u>nyaks* /wak-nyak-s/ 1P-get.married-HAB 'I get married' (Rowicka 2001:112)

1b) *tehsaʔá:r<u>a</u>rik* /te-hs-aʔar-rik-Ø/ DU-2SG-curtains-put.together-IMP 'Put the curtains together' (Hajime 1995:63)

1c) *<u>í</u>ktats* /k-tat-s/ 1P-offer-HAB 'I offer it' (Michelson 1989:45)

The example in 1a) shows epenthetic *-e-*, which is inserted to break up the illicit surface consonant sequence *[kny]. 1b) exhibits the 'stem-joiner' *-a-*, which is inserted to break up any inter-morphemic CC sequences within the verbal stem, i.e. the incorporated noun (if any), the verbal root and the derivational suffix.es. In 1c) insertion of prothetic *i-* is necessary to assign penultimate stress on the word. Furthermore, while *i-* always receives stress, *-e-* and *-a-* may only do so iff they are inserted in a triconsonantal cluster (1a)); otherwise stress becomes antepenultimate (1b)) (Rowicka 2001).

2. Morphosyntactic complementary distribution. Rawlins (2006) suggests that epenthesis targets different morphological domains within the word. In fact, it appears to be so (the epenthetic vowels are shown in the structures for ease of exposition):

2a) [$_{CP}$[$_{IP}$ *wak-<u>e</u>-* [$_{vP}$ *-nyak-* [$_{AspP}$ *-s*]]]]

2b) [$_{CP}$[$_{IP}$ te-hs- [$_{nP}$ -aʔar-*<u>a</u>-* [$_{vP}$ -rik- [$_{AspP}$ -Ø]]]]]

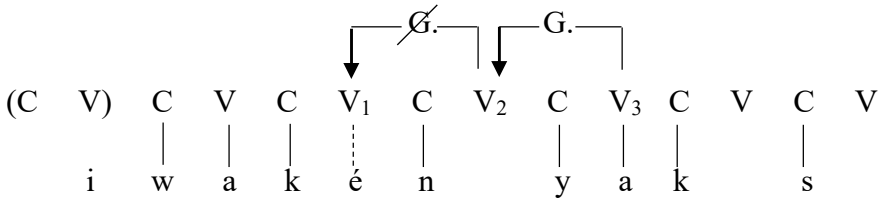
2c) *<u>i</u>-*[$_{CP}$[$_{IP}$ *-k-* [$_{vP}$ *-tat-* [$_{AspP}$ *-s*]]]]

The observation of the data leads to the following statements: *-a-*'s domain of insertion lies within the *v*P and at its left edge (2c), *i-* targets the outer left edge of the CP (2b), while *-e-* is operative everywhere else (within the CP yet outside of the *v*P) (2a).

3. Proposal. In order to account for the complementary distribution between these three vowels while dealing with their apparent distinct functions as well as their interaction with stress placement, I rely on several approaches: Direct Interface (Scheer 2012), Government Phonology (the strict-CV variant; Lowenstamm 1996, Scheer 2004) and cyclic spell-out (Chomsky 1998). I assume that epenthesis in Mohawk consists in a unified phenomenon occurring concomitantly with the spell-out (SO) of some phases (*v*P and CP) and their cyclic interpretation at PF:

4. Analysis. i) <u>SO of *v*P</u>: systematic *a*-epenthesis between inter-morphemic CC clusters; ii) <u>SO of CP</u>: insertion of a word-initial CV including a floating *i-*; iii) <u>Linearization</u>: *e*-epenthesis breaks up remaining illicit consonant clusters and Government relations may apply to calculate stress placement; if epenthetic *-e-* or *-a-* is penultimate but governed, it cannot receive stress and the latter must shift leftwards to the next filled V; if stress enters the domain of the initial CV, prothetic *i-* associates to the nucleus (only linearized structures are represented):

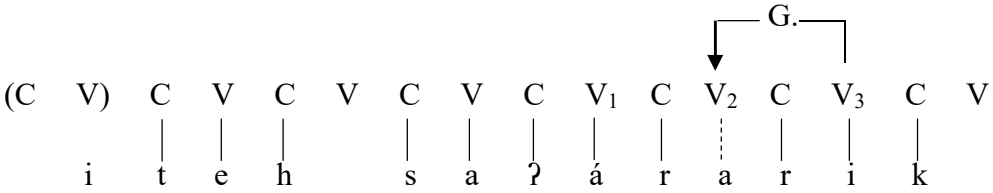
3a) Derivation of *wak<u>é</u>nyaks* /wak-nyak-s/: i) SO of *v*P: /nyak-s/ (no *a*-epenthesis); ii) SO of CP: /<u>i</u>-wak-nyak-s/; iii) linearization:



V_1 is filled with epenthetic *-e-* to prevent the emergence of the illicit *[kn] cluster as well as the adjacency of two empty nuclei (V_1 and V_2). It moreover receives stress because it is in a penultimate filled nucleus (V_1) and it is ungoverned by V_2 (compare with *<u>í</u>s<u>e</u>riht* (Hajime

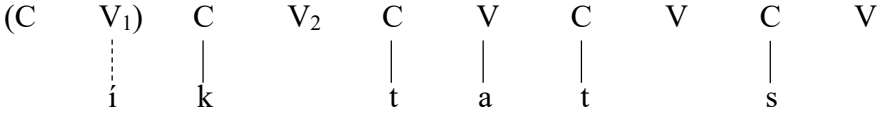
1995:63) where epentjhetic -*e*- is penultimate yet in an open syllable (thus governed); prothesis is then required).

3b) Derivation of *tehsaʔá:rarik* /te-hs-aʔar-rik-Ø/: i) SO of *v*P: /aʔar-a-rik- Ø/ (*a*-epenthesis); ii) SO of CP: /i-te-hs-aʔar-a-rik-Ø/; iii) linearization:



-*a*- is inserted in V_2 because /rr/ is an inter-morphemic sequence within *v*P. Yet it cannot receive stress because it is governed by V_3; stress then shifts leftwards and thus falls on lexically filled V_1.

3c) Derivation of *íktats* /k-tat-s/: i) SO of *v*P: /tat-s/ (no *a*-epenthesis); ii) SO of CP: /i-k-tat-s/; iii) linearization:



V_2 need not be filled since word-initial [kt] clusters are acceptable in Mohawk. If prothetic *i*- surfaces under V_1, it is then not for syllabification purposes but only to receive stress since no other filled nucleus precedes /a/.

5. Conclusion. The proposed analysis has two advantages. First, epenthesis in Mohawk may be interpreted as a unified process occurring along with cyclic SO: while insertion of underlying -*a*- and *i*- is tied to SO of *v*P and CP, -*e*- happens to be a surface segment which applies after linearization between illicit *CC clusters. Second, Government relations applying after linearization can entirely account for the interaction between stress placement and epenthesis.

6. References.

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