Morphologically triggered default-to-opposite stress in Nez Perce

This paper addresses the interaction of morphology with primary stress assignment in Nez Perce (Aoki, 1970; Crook, 1999), with particular attention to the default-to-opposite stress seen in accented verbs: primary stress in Nez Perce is rightmost by default, but surfaces on the leftmost in a series of lexically accented verbal prefixes, even when the verb root itself is accented. This morphologically triggered default-to-opposite system is typologically interesting, and is argued here to result from conflict between default rightward alignment with a preference to place primary stress on the morphemes furthest towards the edge of the word from the root.

Nez Perce stress is sensitive to the presence of lexically specified accents. In the absence of underlying accents, primary stress is penultimate (NONFINALITY ≫ ALIGN(stress, R)), as illustrated in (1).

(1)  a. pískis pískísne b. háníisa hánísåqa
     \√\pískis \√\pískís-ne
     \‘door’ \‘door-OBJ’
     \’I am making’ \‘I was making’

When a word has only one underlying accent, primary stress will surface on the accented syllable, even when that syllable is final (MAX(accent) ≫ NONFINALITY), as shown in (2). When a word has multiple underlying accented syllables, however, NONFINALITY and ALIGN-R(stress) are able to re-assert themselves, and primary stress surfaces on the rightmost non-final accented syllable, as in (3):

(2)  a. híísêmtuks b. ‘ínít c. hipú’ d. hik’lîcaqa
     \√híísêmtuks \√‘ínít
     ‘sun’ ‘house’
     \√hip-ú’ híi-\√k’lî-c-qa
     eat-IRR 3-be.unable.pass-REC
     ‘I will eat’ ‘He was unable to pass’

(3)  a. sêpînéwiyù’ b. páynôosâqa
     \√sêpînéwi-ú’
     ‘I will measure’
     \páy-ña-sáqa
     arrive-toward-REC
     ‘I recently arrived towards’

In the default-to-opposite case of verbs, when one or more accented prefixes are present, primary stress will always be on the leftmost accent (not necessarily the leftmost syllable), in apparent violation of ALIGN-R(stress) (4a-c). This iterative leftwards attraction is disrupted, however, in the presence of an accented suffix, as in (4d); note that the derivational suffix that receives stress in (4d) is arguably within the morphological scope of the accented inflectional leftmost prefix.

(4)  a. sîléewcûkwèce b. nêesepèslèwccûkwèce
     sléew-\√cûkwè-cee
     by.seeing-know-INC
     ‘I know by seeing.’
     nêes-sepè-sléew-\√cûkwè-cee
     PLOB-CAUS-by.seeing-know-INC
     ‘I make you (PL) know by seeing.’

c. hînêeswêyikse d. hînêswêyikuuse
     hîi-nêes-\√wêyik-see
     3-PLOB-cross-INC
     ‘He is crossing them.’
     hîi-nêes-\√wêyiku-ú-see
     3-PLOB-cross-toward-INC
     ‘He is crossing toward them.’

Default-to-opposite stress systems have been central in the development of phonological
theories of stress (Hayes, 1985, 1995; Prince, 1983, among others). First described for Eastern
Cheremis by Kiparsky (1973) and for Selkup by Halle and Clements (1983); Idsardi (1992),
default-to-opposite stress canonically involves reversal of stress alignment triggered by the
presence of *heavy* syllables: thus in Selkup, stress is assigned to the rightmost heavy syllable,
or to the leftmost (initial) syllable in the absence of any heavy syllables.

As a default-to-opposite system, the Nez Perce reversal of alignment is interesting for two
reasons: first, it is sensitive to morphological type (prefixhood), not to prosodic position (stress
can be attracted onto a leftmost accent that is non-initial). Second, it is abstract accent, rather
than a surface property such as weight, that triggers the reversal of alignment. These properties
prevent an analysis of the Nez Perce data in terms of in terms of recent analyses of default-to-
opposite phenomena as the result of positional licensing (as in Zoll, 2002), or as an illusion re-
sulting from intonational prominence (Gordon, 2000). There is no prosodic difference between
the prefixes that trigger alignment reversal and the syllables that would otherwise receive main
stress; Nez Perce default-to-opposite stress thus requires an account in which ALIGN-R(stress)
is outranked by some constraint that prefers stress on a leftmost accented prefix rather than on
the verb root in (4a-c), but which is satisfied by primary stress on an accented suffix in (4d).

This paper employs a constraint STRESS-OUTERMOST(accent) for this purpose. This con-
straint requires that in a string of accented morphemes on one side or the other of the root,
stress must fall on the morpheme furthest from the root. It assigns a violation otherwise. The
result of this is that the notion of ‘outermost’ visible to phonology *linear* rather than structural,
and is unable to evaluate relative ’outer-ness’ between prefixes and suffixes.

What this buys in terms of the analysis of Nez Perce is an explanation for the problematic
case of (4d), which shows that leftmost accented prefixes attract stress *only in the absence
of eligible accented suffixes*. If STRESS-OUTERMOST(accent) outranks ALIGN-R(stress), then
placing primary stress on the root will be non-optimal, even if the root carries the rightmost
lexical accent; stress will be pushes leftwards onto an outermost prefix. When an accented
suffix is present, however, it can satisfy ALIGN-R(stress) as well as STRESS-OUTERMOST; no
matter how many prefixes are present, they are not relevant for the evaluation of STRESS-
OUTERMOST(accent) with respect to a suffix. The tableau in (5) illustrates this crucial ranking
for the case of (4d), and its evaluation of the relevant candidates:

(5)

<table>
<thead>
<tr>
<th>hi-nées-√wéeyik-úu-see</th>
<th>STRESS-OUTERMOST</th>
<th>ALIGN-R(stress)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. hínèswéyikúuse</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>b. hinéswéyikúuse</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>c. hinéswéyikúuse</td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

All three candidates satisfy MAX(accent), not included in the tableau here. The candidate in
(c) violates STRESS-OUTERMOST by placing stress on the root. Candidate (b) satisfies STRESS-
OUTERMOST at the cost of extreme violation of ALIGN-R; in the absence of an accented suffix
this would be the winning candidate. The winning candidate (a) satisfies STRESS-OUTERMOST
as well as candidate (b) does — both have only unaccented affixes outside them — and also
has the no violations of ALIGN-R(stress).

This approach to the issues of Nez Perce stress improves on the prior account developed
by Crook (1999), which formalized the default-to-opposite pattern using a constraint banning
primary stress from the stem; the iterative leftwards attraction of stress in that system, however,
required constraint re-rankings triggered by the presence of accented prefixes, together with a
system of *partial* bracket erasure necessary to capture the fact that accented suffixes disrupted
leftwards attraction.
Regarding the morphological conditioning of this phenomenon, it is of interest to note that nouns in Nez Perce do not show default-to-opposite effects, and instead show a very different pattern: in the absence of any underlying accent, primary stress cannot move past the right edge of a nominal root, which forces non-penultimate stress with a certain set of prepositional suffixes.

(6)  
\begin{tabular}{llll}
   a. & pískis  & b. & pískísne  \\
   \( \sqrt{pískis} \) & \( \sqrt{pískís-ne} \) & c. & pískís\(\text{'}kín'ix \)  \\
   'door' & 'door-OBJ' & \(\ast pískís\(\text{'}kín'ix \) &  \\
\end{tabular}  

The difference between nominal and verbal behaviour in Nez Perce raises the question of how phonological processes can be made specific to individual morphological categories. I propose that the retention of stress by nominal roots is best understood as a transderivational realization of the noun-specific faithfulness phenomenon described by Smith (1997). This is an alternative to lexical constraint indexation, as developed recently by Pater (2002, 2006), or to category-specific constraint re-ranking, previously applied by Crook (1999) to Nez Perce and developed for other phenomena by Anttila (2002) and Inkelas and Zoll (2005).

**References**


