A Case of Conspiracy Up the Mountains

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Main claim: Tenyidie (Angami), a Tibeto-Burman language spoken in Northeast India, displays a variety of challenging tone alternations upon both prefixation and suffixation. While suffixation shows tone spreading and polarity, prefixation involves fusion and tone dissimilation. In addition, different suffixes take different natural classes of tones as context for their alternation. I propose that all these tone changes conspire to avoid OCP violations. The different repairs in different contexts fall out from a new tonal representation based on hierarchically structured sub-tones and the prosodic structure.

Data: Tenyidie employs a four level-tone system with the tones Extra High /ő/, High /é/, Mid /ē/, and Low /è/ (Blankenship et al, 1992; Meyase, 2014). There are three classes of suffixes: (i) *non-alternating suffixes*, such as /–ciē/ (IMP), /–ʒiő/ (PROS), which surface consistently with one of the four tones in all contexts; (ii) *assimilating suffixes* (1), which always show up with either Extra High or High, the former surfacing after Extra High and Mid and the latter after High and Low; and (iii) *quirky alternating suffixes* (2), which always show up as Mid or Low, the former surfacing after Extra High and Mid and the latter after High and Low. These alternations take different natural classes as their context: Extra High and Mid vs High and Low in (1) but Extra High and High vs Mid and Low in (2). In addition, the alternation in (2) is challenging since it apparently involves polarity, where the higher tones trigger a lower tone and the lower tones trigger a higher tone.

(1) Assimilating suffixes:

ző	ʒə́	'to wrap'+ PROG
zé	ʒə́	'to pierce' + PROG
zē	ʒə́	'to sell' + PROG
zè	ʒə́	'to sleep' + PROG

(2) Quirky alternating suffixes:

ző	liè	'to wrap'+ IRR
zé	liè	'to pierce' + IRR
zē	liē	'to sell' + IRR
zè	liē	'to sleep' + IRR

Moving on to prefixes, prefixes with Mid tones, for example /kē–/ trigger a tone change on monosyllabic roots which also bear Mid tone, changing the latter to High (3c). However, no tone change is observed when they are prefixed to other morphemes.

(3) Mid tone dissimilation upon prefixation:

a.	kē–	+ nő (happy)	→	kēnő	(happy.ATTR)
b.	kē–	+ ví (good)	→	kēví	(good.ATTR)
c.	**kē–**	+ **zī** (early)	→	**kēzí**	(early.ATTR)
d.	kē–	+ sì (cold)	→	kēsì	(cold.ATTR)

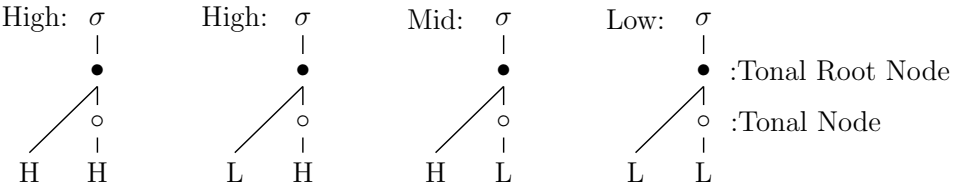
However, sequences of Mid tones are allowed in monomorphemic words, e.g., kēlē ('to pinch'), and also in stem–suffix sequence, e.g., zē–ciē ('to sell' + IMP). Also, the derived tone behaves like a Mid tone, and not a High tone, which is seen in (4) with the tone triggered on the quirky alternating suffix /–lie/.

(4) A derived High tone behaves differently from a non-derived High:

a.	/pē– + ví + –lie/	→	[pēví–liè]	(CAUS + good + IRR)
b.	/pē– + zī + –lie/	→	[pēzí–liē]	(CAUS + early + IRR)

Proposal: I propose a new tone representation given in (5), a considerably modified three-dimensional version of the one proposed in Hyman (1993). Here, the Tonal Root Node (•) and the Tonal Node (○) are ordered while the tonal features, H and L, are not ordered, but associated to the ordered nodes.

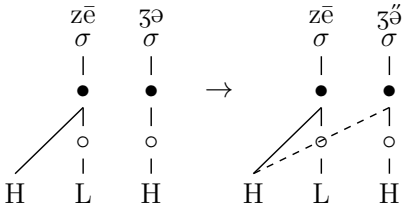
(5)



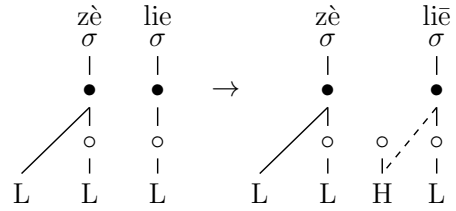
This tone decomposition into the features H and L captures the natural classes that we see in the tonal alternations in the suffixes, and, at the same time, makes it possible to analyse the processes in (1)–(4) using standard parallel Optimality Theory (OT).

The assimilation in (1) can be explained with tonal underspecification of the suffix which is only specified an H for the (∘) node but lacks one for (•) node. The suffix then acquires the missing tonal feature by assimilation from the stem (6). The partial polarity in (2) follows as an OCP-driven epenthesis under the assumption that the suffixes are underspecified for the (•) node and only specified L for the (∘). Epenthesis of $(\overset{\circ}{|}_{\mathrm{H}})$ takes place to counter OCP $(\overset{\circ}{|}_{\mathrm{L}})$ and the epenthesised H is then associated to the empty (•) of the suffix to supply it with the missing tonal root node specification it lacks (7).

(6) Assimilation in suffix:



(7) Suffix tone polarity:

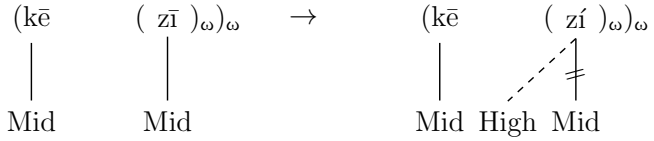


As for prefixation, I propose that the change of tone in words like /zī → pēzí/ is Mid tone dissimilation triggered by OCP(Mid), where the tones are dissimilated by the epenthesis of a High tone. I explain the difference between underlying and derived High tones by arguing that the underlying stem Mid tone is de-associated but remains floating after the epenthetic High. The floating Mid remains visible to the underspecified suffix /–lie/ in (4b) and therefore triggers a Mid tone.

I account for the lack of Mid tone dissimilation in other contexts by arguing that morpheme-internally and across stem–suffix boundary, OCP(Mid) [shorthand for OCP(• associated to H and dominating ∘ associated to L)] is satisfied by tone fusion (8). The different reaction to the OCP here can be explained with recourse to prosodic phonology (Nespor and Vogel, 1986). The prosodic word (ω) includes stems and suffixes but excludes prefixes. Since fusion cannot apply across a prosodic word boundary, the epenthesis of a High tone is introduced to satisfy OCP(Mid) (9). This is an example of phonological conspiracy where multiple processes work together to avoid a single marked structure (Kisseberth, 2011).

(8) Tone fusion within a prosodic word [Mid = shorthand for Mid in (5)]:

(9) Tone dissimilation across the prosodic boundary:



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