

Exercise 1: Interaction of stress and lexical tone in Ayutla Mixtec

Below you find a selection of data from Ayutla Mixtec, a language spoken in Mexico, where lexical tone (High, Mid, Low) and word stress interact.

'HLH	[ˈʃínirá]	‘his hat’
'HLHL	[ˈʃââʃîʔ]	‘is not eating’
'HLHLL	[ˈsátakáràrîʔ]	‘he is buying animals again’
L'HL	[màʔ'nâi]	‘my drowsiness’
H'HL	[lú'lúrà]	‘he is small’
H'HLL	[lú'lúvârà]	‘he is very small’
H'HLH	[ká'tʃírâá]	‘there is none of his cotton’
HH'HL	[tíká'tʃîʔ]	‘four whirlwinds’
LL'HL	[sàtà'kàrà]	‘he will buy more’
LM'HL	[lùlū'úrâ]	‘he is not small’
LMH'HL	[vîʃî'rââ]	‘he is not cold’

- Describe in your own words what determines the placement of word stress (without making reference to foot structure).
- Now state the same generalization by making reference to foot structure.

Consider these additional data:

'HH	[ˈtímáʔ]	‘candle’
'HHH	[ˈʃínirá]	‘he understands’
'HHHH	[ˈʃítórírâ]	‘he (animal) is watching him (man)’
L'H	[pà'lá]	‘brown sugar’
M'H	[jā'kʷáʔ]	‘is it crooked’
L'HH	[kà'sárâ]	‘his brother-in-law’
M'HH	[jā'tárâ]	‘is he old’
LL'H	[sàtà'râ]	‘he bought’
ML'H	[kūnù'râ]	‘his tobacco’
LM'H	[nùpā'râ]	‘he will not open’
LLL'H	[kàʃîrî'râ]	‘he (animal) will eat him (man)’
LLM'H	[ʃàkùū'râ]	‘he isn’t crying’

- Which new generalization emerges from the data above?

Now take a look at the following forms:

'LL	[ˈkàʃîʔ]	‘to eat’
'LLL	[ˈʃâtùì]	‘my trousers’
'MM	[ˈtīkū]	‘louse’
'MMM	[ˈʃīpūrâ]	‘his pineapple’

- d. Are these forms in line with the generalizations you have established so far, or do you have to adapt them? Discuss.
- e. Given your analysis, where would you expect stress in words of the shape MLMM, and why?
- f. Imagine there is something like a hierarchy of “tonal sonority”, similar to the sonority scale for segments. Based on the data from Ayutla Mixtec, what should this scale look like. Provide arguments.
- g. In what way do these data suggest that lexical tone and stress can coexist in the same prosodic system? What speaks against reducing the patterns to only tone or to only stress, respectively?