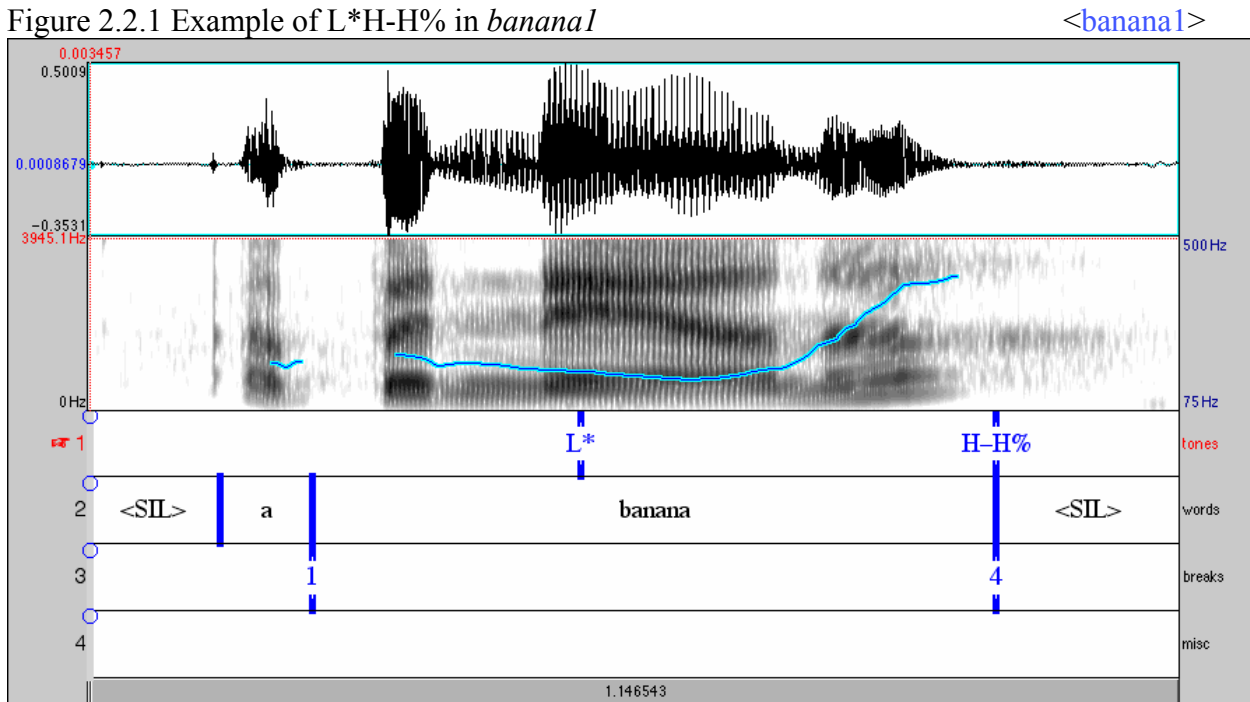


## 2.2 Adding to the inventory: tones L\* and H-H%

Tonal events that cue phrasally-prominent syllables can be high or low. The following example has a falling f<sub>0</sub> that reaches a minimum on the *-nan-* syllable in *banana1*. This is a Low pitch accent on *banana*, marked with L\*. Again, the L stands for a low tonal target and the \* means that the low tone is associated with a prominent syllable. Perceptually, you can hear that the *-nan-* in *banana* is more salient than other syllables in this utterance. Also notice that the end of the utterance has a sharply rising f<sub>0</sub>. This intonational phrase has a high phrase accent (H-) and a following high boundary tone (H%), hence it is marked as H-H%. In Mainstream American English (MAE), this intonational contour is one typical way of indicating that an utterance is a question for which the speaker expects a yes-or-no answer.

Figure 2.2.1 Example of L\*H-H% in *banana1*

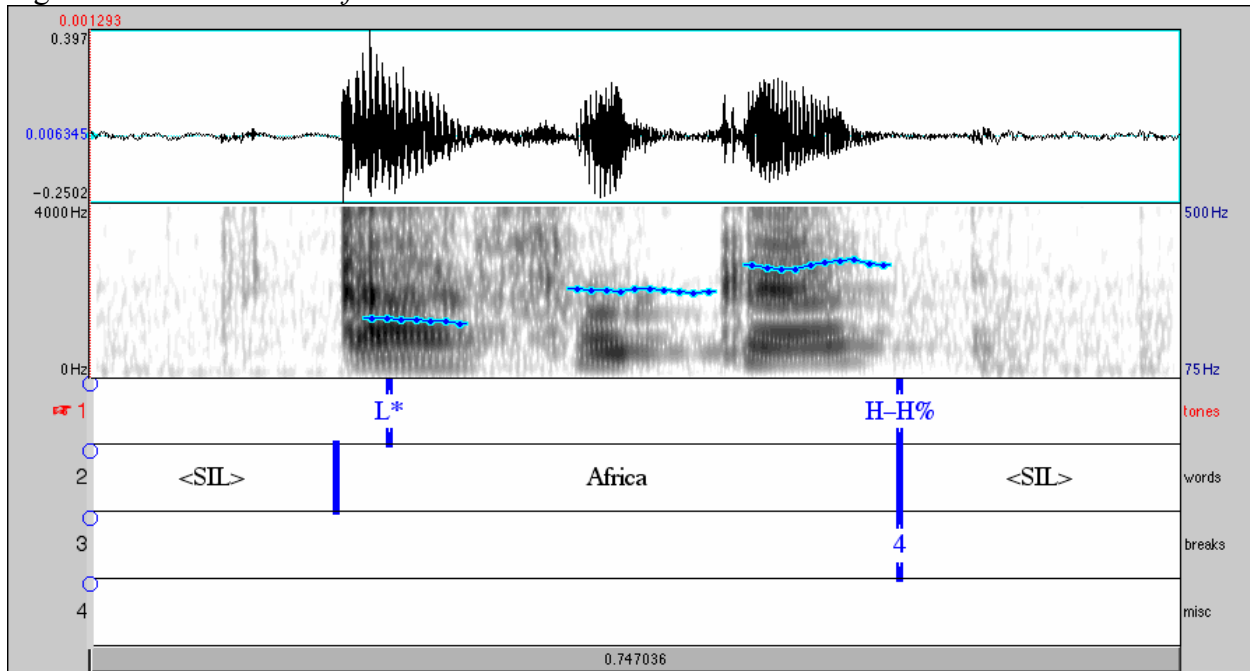


The distribution of break indices in this example is the same as many of those seen in the examples in Section 2.1: there are 1's between each pair of words and a 4 at the end of the Intonational Phrase (IP).

In the next example, <africa>, a chance placement of unvoiced segments /f/ and /k/ (sounds for which the vocal folds don't vibrate, so there is no f<sub>0</sub>) separates the three tonal elements L\* H-H%. This results in a step-like appearance that, while convenient to illustrate the three different elements, is not typical. In other segmental contexts, the f<sub>0</sub> for the successive tonal elements will flow smoothly from one to the next. By the way, the L\* may seem to be rather high if examined out of context. However, this speaker has a relatively high pitch range.

Figure 2.2.2 L\*H-H% in *africa.wav*

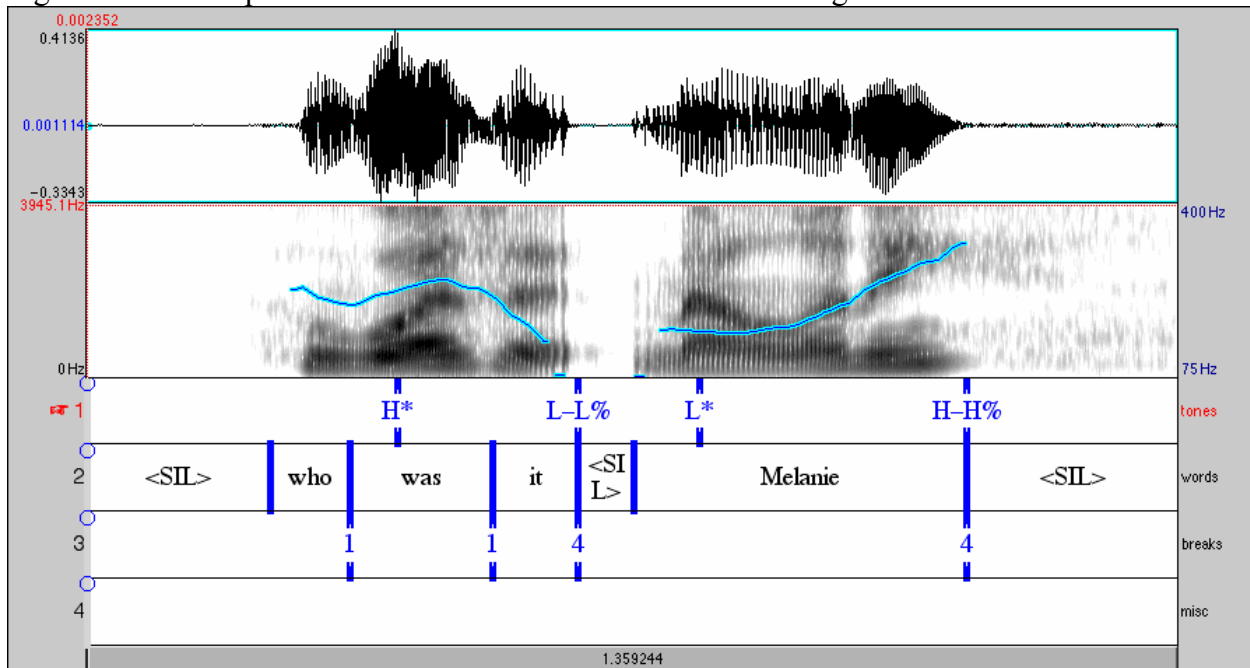
<africa>



Most of the examples shown here and earlier have only a single IP, so that the 4 at the end of the IP is also at the end of the utterance. In cases like this, disjuncture denoted by the 4 Break Index is between the last word of the IP and the silence that follows. Perhaps the idea of “disjuncture” is more comfortably reflected in the context of a sequence of intonational phrases, which

Figure 2.2.3 Example of two Intonational Phrases linked in a single utterance

<melanie>



frequently occurs in conversational or narrative speech contexts, but not so far in this tutorial. If there are several IP's in sequence, the 4 at the end of the each IP describes the disjuncture between the last word in the first phrase and the first word in the next phrase, as shown in the example <melanie.wav>. The words in the first part of this larger utterance (*Who was it*) group together into a single intonational phrase, separate from the word in the second part of the utterance (*Melanie*). The disjuncture between the two IP's, marked with the break index 4, is cued by the phrase accent (L-), boundary tone (L%) and relative lengthening on the final syllable of the first intonational phrase.

Inventory so far:

Tones:

H\* high pitch accent

L\* low pitch accent

L-L% low phrase accent, low boundary tone

H-H% high phrase accent, high boundary tone

Break indices:

0: word boundary erased

1: typical inter-word disjuncture within a phrase

4: end of an intonational phrase