Class 23 (May 8, 2002): Intonation

**Pitch accents**
In English, various ‘tunes’ are associated with certain discourse functions, such as statements, questions, surprise, expectation of continuation, etc.

Think of the different tunes you could use for

*You’re going Saturday*

The tones in a tune are associated fairly predictably. Let’s try H L and L H on these words:

fortunately undoubtedly kängaróo congratulátions álligátor

A tone that associates to a stressed syllable is usually written T*, and called a pitch accent/

**Phrase tones and boundary tones**
In English and many other languages, intonational phrases may be delimited by *boundary tones* (T%), respectively.

Standard English statement: H* L% (each IntP may have more than one H*)

*I want to talk to you.*

*May 5*th*, which is a Monday, is a holiday.*

*Alligator.*

Standard English yes-no question: L* H%

*Are you leaving?*

*Do you want any milk, sugar, or lemon for your tea?*

*Alligator?*

A specially focused word can attract the T*:

*Are legumes a good source of vitamins?*

*Are legumes a good source of vitamins?*

*Are legumes a good source of vitamins?*

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1 There’s also the phrasal accent (T), which comes at the end of every “intermediate phrase” (including before the T%). Because intermediate phrase ≠ phonological phrase, though, I’m omitting the T’s to keep things simple.
Some other melodies

- mulling something over: $\text{H}^* \text{!!H}^* \text{L}^%$
- How many times do I have to tell you?: $\text{L}^* \text{H}^* \text{L}^%$
- uncertainty or implied continuation: $\text{H}^* \text{H}^%$
- calling: $\text{L}^% \text{H}^* \text{!!H}^%$

There are also complex pitch accents like $\text{T}^* \text{T}^*$ and $\text{T}^* \text{T}^*$: the $^*$ part associates to the stressed syllables, and the other tone associates nearby.

\[ A: \text{Morphemes in English have at most three syllables.} \]

\[ B: \text{‘Rigamarole’ is monomorphemic.} \]

**Course highlights**

- Rules/constraints differ in their domains of application
  - lexical rules: within (morphosyntactic) words only
  - postlexical rules: across words—within phonological phrases? within utterances?
- **Lexical phonology**: the lexical/postlexical distinction correlates with various other properties (susceptibility to exceptions, etc.)
- **Cyclicity**: words can inherit phonological properties of the words they’re derived from
- **Nonlinear phonology**: features/gestures are somewhat independent of segments
- **Prosodic hierarchy**: from feature tree up to utterance: Like syntactic structures, phonological structures are hierarchically organized. Unlike syntactic structures, they do not permit recursion, but do permit a lower node to be dominated by $>1$ higher node
- **Syntax-phonology interface**: syntactic structure determines much phonological structure at the higher levels, though the resulting constituents aren’t necessarily syntactic constituents
- **Constraints**: rules often conspire to avoid marked structures
- **Heterogeneity of process**: different languages use different means to avoid the same marked structures
- **Emergence of the unmarked**: constraints can be active in languages even when they are not always obeyed (i.e., they make their presence known when there is a choice)

**Things to think and learn about in the future**

- Can we capture opacity in OT? How about cyclicity?
- Computation: How could we implement learning, generation, and comprehension in rule-based phonology? In OT?
- What kinds of markedness constraints are there? Are they always grounded in phonetics?
- Why/how do phonologies change over historical time?
- Phonology-semantics interface: how does intonation interact with semantic focus, discourse functions, etc.?
Where can you go from here?

- **Other linguistics courses**
  - 24.902 syntax
  - 24.903 semantics and pragmatics
  - 24.904J acquisition
  - 24.905J psycholinguistics
  - 24.910 topics in linguistic theory

- Search the MIT subject listings for ‘speech’! You’ll find courses on computer speech recognition and synthesis, signal processing, and auditory perception and cognition.

- **24.UR**: undergraduate research opportunities. Contact Alec Marantz.

- Talks in linguistics (future letter-of-recommendation writers will be impressed if you attend some of these!); see [http://web.mit.edu/linguistics/www/home.html](http://web.mit.edu/linguistics/www/home.html) for schedules.
  - Phonology Circle
  - Ling Lunch
  - Colloquia

  See also [http://www.bu.edu/linguistics/UG/current-eventslx.html](http://www.bu.edu/linguistics/UG/current-eventslx.html) for linguistics events at all local universities

- **NELS**: Big formal linguistics conference that will be hosted by MIT this November. Information is/will be at [http://linguistics-philosophy.mit.edu:16080/nels/](http://linguistics-philosophy.mit.edu:16080/nels/)

- **Join the Linguist List**: [http://www.linguistlist.org/](http://www.linguistlist.org/) This is a high-volume email list, though, and you can read it on the web page instead.

- **Join the Optimal List**: This is a low-volume email list about just phonology and OT. It is not available on the web. Go to [http://roa.rutgers.edu/optimal-list.php3](http://roa.rutgers.edu/optimal-list.php3)

Next time: presentations!