[1]. Overview

- Traditional analysis of intonation especially in Britain in terms of gross F0 contours such as rise for interrogative or fall for declarative oriented with respect to the edge of a phrase or the strongest stress (the nuclear accent): assimilation vs. preliminary
- Strong (invariant?) correlation between intonation contour and information content: fall associated with complete information, rise with incomplete information (Bollinger)
- Early generativists Liberman (1975) and Goldsmith (1976) propose that autosegmental-metrical (AM) model of tone and stress can be applied to analysis of intonation contours: falling declarative F0 contour on cabin is phonetically and phonologically comparable to the HL tonal analysis of Mende ngilà and falling contour of baloon is comparable to mbù
- Cf. English loans into Yoruba (Kenstowicz 2006): 'dollar > dólà, 'de'cree > dikírí
- AM model applied to analysis of sentential F0 contours in English, Japanese, Romance, Hungarian, Korean, Bengali, and many other languages
- Traditional contours analyzed as sequence of turning points (H,L) defined with respect to stressed syllables and edges of phrases and larger units
- Universalist view of Bollinger is revealed to be just a statistical (markedness) tendency
- More recent attempts to model F0 contours more precisely with notions of slope and decay


- Two tone levels (H and L) suffice for English
- Three tonal categories: pitch accents (e.g. H*, H* + L, ...), boundary tones (H%, %L), and phrase tone (H)
- Sparse representation: not every syllable specified for a tone: phonetic interpolation between tonal targets
- Tones subject to phonetic implementation to generate F0 contour
- ToBi (tone-break-index) transcription system

[3]. While English is tonally impoverished for lexical contrasts, it has many subtle F0 distinctions at the sentence level with grammatical and elusive pragmatic contexts

[4] some basic contours

- declarative: H* L% interrogative: L* H% vocative: H* 'H%

- preliminary assimilation Abernathy Aloysius
[5] more on the vocative

calling contour; also found in *Happy Birthday* song (“Happy Birthday to Jo-ohn”)

\[H^*!H H^* \uparrow!_H H^*!H H^*!H H^*!H H^* \uparrow!_H\]
Johnny Jonathan Rebecca Loui-ise Jo-ohn Abernathy

French
\[H!H L H!H H!H H!H\]
Monique Anne-Marie Louise Napoleon

[6] High Rising Terminal (aka “uptalk”)

- Common in New Zealand, Australia, N. America but not Britain
- Pragmatically used to invite acknowledgement: “Do you follow me?”
- Transaction openers: “I have an appointment with Doctor Macmillan”
- Answer to wh-question: “What's your name?” “William Jarvis”

[7] Sentence level

- default final (nuclear) stress: 
  - eat **meat** VP
  - red **car** NP
  - barely **tolerable** AP

- some more subtle contrasts (Ladd 1996:208)

neutral
\[H^* H^*L L% H^* H^* H^*L L%\]
I read it to Julia I wanted to read it to Julia

nuance: ’and that's that; there's nothing you can do about it’
\[H^* \_1H^*L L% H^* \_1H^* \_1H^*L L%\]
I read it to Julia I wanted to read it to Julia

nuance: ’as you ought to know; you dummy’
\[L^* H^*L L% L^* L^* H^*L L%\]
I read it to Julia I wanted to read it to Julia
focus and departure from normal (default) stress

Broad focus (answer to *What happened?* reporting whole event out of blue with no prior context setting up an expectation)

The soldiers entered the **house**.

Narrow focus: the answer to a wh question

**Who entered the house?**

*The soldiers entered the house.*

? The soldiers entered the **house**.

Contrastive focus: one item singled out in comparison to another

*The soldiers entered the house* (not the police).

The soldiers entered **the house** (not the barn).

Normal (default) stress vs. focus structure

- controversy whether sentences can have metrical stress structure not tied to discourse
- or does every sentence have a focus structure?

The soldiers entered the **house**.

- Used as out of blue broad focus
- Narrow focus on house (What did the soldiers enter?)
- Narrow focus on VP (What did the soldiers do?)

Languages differ on how focus is marked

- Particle (Papiamentu, Somali)
- Focus location (Hungarian: preverbal)
- Shift of major stress away from default position (English)
- Change of word order: major sentence stress is more rigidly final and word order changed so that focused word appears at right edge (Italian, Catalan)
- Change of phonological phrasing (Korean, Japanese)

Kyungsang

(nwúña mánl meknúnta)  ‘sister ate garlic’

(nwúña) (mánl meknúnta)  focus on object
focus operators

the scope of a focus operator like only is marked by stress

I showed the letter to Mary.
I only showed the letter to Mary. (not to Bill)
I only showed the letter to Mary. (not the will)
I only showed the letter to Mary. (I didn't give it to her)

Crosslinguistic patterns of prominence (Ladd 1996)

• for English, yes/no questions have same default rightmost accent
• but in Russian while statements have default final accent, yes/no questions have default accent on the inflected verb

E She bought a book. Cf. She bought a book.
R Ona kupila knigu.

E Did she buy a book? Did she buy a book?
R Ona knigu kupila. Did she buy a book?

For wh questions, English has default final accent if the Wh element is moved to C

What did you give to Mary?

• In languages with wh-in-situ like Turkish and Bengali, the wh word is focused and attracts prominence
• English in-situ echo-questions and multiple wh also seem to attract stress

You gave what to Mary? (cf. *You gave what to Mary?)
Who gave what to Mary?

• English/Germanic languages deaccent old (given) information

I bought her a bottle of whisky, but it turns out she doesn't like whisky.

(cf. Indian English: If you don't give me that cigarette, I will have to buy a cigarette.)

not found in Romanian or Italian: le inchieste servono a mettere a posto cose andante fuori posto “the investigations serve to put in place things that have gone out of place”
to achieve the same effect in Italian, a word is dislocated to right (emarginazione) where low accent is the norm: adesso faccio scorrere il tuo, di bagnetto “now I'll run your bath”

- English deaccents non-negative indefinite pronouns and "light" nouns

<table>
<thead>
<tr>
<th>English</th>
<th>Italian</th>
</tr>
</thead>
<tbody>
<tr>
<td>I saw Mary.</td>
<td>Ho sentito Maria.</td>
</tr>
<tr>
<td>I saw something.</td>
<td>Ho sentito qualcuno.</td>
</tr>
<tr>
<td>I saw nobody.</td>
<td>Non ho sentito nessuno.</td>
</tr>
</tbody>
</table>

| He killed | …perché ha ucciso un uomo. |
| He killed a policeman. | …perché ha ucciso un poliziotto. |

- In subject + intransitive verb sometimes departs from final stress in English

Unaccusatives (subject has no control)  
My umbrella broke.  
The sun came out.  
His mother died.

Unergatives  
My brothers are wrestling.  
Jesus wept.  
The professor swore.

Abstractions, generics:  
Wood floats.  Hope faded.

- Modifications of lexical stress for contrast

This whisky wasn't exported it was deported.  
Divers found the wreck of the Britannic, sister ship of the Titanic.


- Intonation is part of the phonological structure of a language and hence exhibits some cross-linguistic variation but within a limited space of options