

[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* > *dikirí*
- 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

[2]. Pierrehumbert (1980) develops general model of AM intonation with application to English and later Japanese (Beckman & Pierrehumbert 1988)

- 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* !H	H*!H	H* -!H	H*!H	H* !H
Johnny	Jonathan	Rebecca	Louise	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*	'H*L L%	H*	'H*	'H*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		

[8] 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?)

[9] 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	(nwúna mánul meknúnta)	'sister ate garlic'
	(nwúna) (mánul meknúnta)	focus on object

[10] 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)

[11] 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 **kupila** knigu? Ona kupila **knigu**. (focus on book).
R Ona knigu **kupila**. Did she **buy** a book?

[12] 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 **tu**o, di bagnetto “now I’ll run **your** bath”

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

English	Italian
I saw Mary .	Ho sentito Maria .
I saw something.	Ho sentito qualcuno .
I saw nobody .	Non ho sentito nessuno .
He killed a man.	...perche ha ucciso un uomo .
He killed a policemanperche ha ucciso un poliziotto .

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

Unaccusatives (subject has no control)	Unergatives
My umbrella broke.	My brothers are wrestling .
The sun came out.	Jesus wept .
His mother died.	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 **Titannic**.

[13] General conclusion

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

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