

L. Varga: BBN-ANG11-342.02: BA-Level Seminar in English Intonation

Note: This is an electronic handout, which seminar participants are supposed to print out for themselves and carry to classes. It consists of three parts: Theoretical Part (p.1), Practical Part (p. 14), and Appendix (p. 23).

THEORETICAL PART

Unit 1: Preliminaries

Prosodic (suprasegmental) features

"Prosodic" (Trubetzkoy) = "suprasegmental" (Pike): pitch, loudness, length.

Each can be viewed from 3 phonetic aspects: (a) perceptual (i.e. auditory), (b) physiological (i.e. articulatory), and (c) acoustic (i.e. physical).

Pitch: (a) *pitch*: perceived height of the speaking voice, (b) *rate of vibration of the vocal cords*, (c) *fundamental frequency* (F_0), measured in Hz; average: 120 Hz for men, 225 Hz for women, 265 Hz for children.

Loudness: (a) *loudness*, (b) *breath-force*, (c) *intensity*, measured in dB.

Length (duration): measured in msec.

Pitch patterns: recurring melodies in speech.

The term *tone* traditionally: a pitch pattern (*level tone* = steady pitch or *contour tone* = pitch movement, e.g. Fall, Rise, Fall-Rise, Rise-Fall); in modern phonology: a level-pitch building block of a pitch pattern, H or L, e.g. HL represents a Fall, LHL a Rise-Fall, etc. Pitch patterns are used in 2 senses: lexical tones, parts of intonation.

Lexical tones, Tone languages (tonális nyelvek, polyton nyelvek).

Tones used as word-melodies or tonemes: lexical, inflectional.

(1) Thai: *_kha* 'spice', *-kha* 'trade', *-kha* 'herb', *\kha* 'kill', *'kha* 'leg'

Intonation, Intonational (= non-tone) languages (intonációs nyelvek, monoton nyelvek).

Tones used for the composition of intonation contours (= tunes, melodies of spoken sentences [utterances] and sentence parts [utterance parts]). Some intonation is present in all languages (even in tone languages). Some, predominantly intonational, languages may have a few words with lexical tones (e.g. Norwegian, Swedish). Many languages have only intonation (e.g. English, Hungarian).

(2) a. | \You | | \Yesterday | | \Peter's done it |
b. | /You | | /Yesterday | | /Peter's done it |
c. | vYou | | vYesterday | | vPeter's done it |
d. | ^You | | ^Yesterday | | ^Peter's done it |
e. | -You | | -Yesterday | | -Peter's done it |

(3) | vJohn didn't do it | (4) | I'll 'show you how to ,do it | (5) | ^Olvasta? |

Stress and Accent

Length, loudness and pitch conspire in varying degrees in many Ls to give some syllables prominence when compared with other syllables: stress and accent. In traditional (and in modern practical) intonational works major stresses and tones are represented simultaneously, by means of tonetic stress marks (e.g. Kingdon 1958), cf. (2), (3), (4) and (5).

The phonetically infinitely gradable stress (cf. e.g. Chomsky & Halle 1968) in English can be phonologically divided into a few, discretely different degrees:

nonstress: reduced vowel + no extra loudness,

tertiary stress: full vowel + extra loudness

secondary stress: full vowel + extra loudness + weak pitch prominence (stepup or stepdown in pitch)

primary stress: full vowel + extra loudness + strong pitch prominence (initiation of nuclear pitch contour)

N.B.: Stresses with pitch prominence (i.e. primary and secondary stresses) can be called *accents*.

		Full vowel	Extra loudness	Weak pitch prominence (steps up or steps down)	Strong pitch prominence (starts nuclear contour)
Accented	<i>Primary stress</i> = nuclear / tonic accent = primary accent	+	+	+ / -	+
	<i>Secondary stress</i> = prenuclear / pretonic accent = secondary accent	+	+	+	-
Unaccented	<i>Tertiary stress</i>	+	+	-	-
	<i>Non-stress</i>	-	-	-	-

Unit 2: Intonation, its definition, its units and its systemicness

Definition

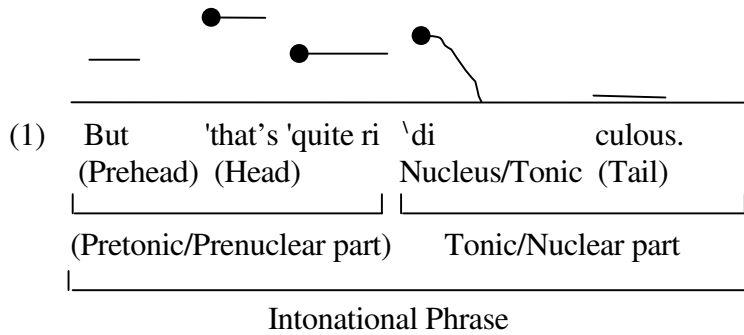
Intonation: the use of meaningful pitch variations in spoken sentences (= utterances).

The linguistic dimension: discrete contrasts, systemicness, structure.

The paralinguistic dimension: graduality rather than discrete contrasts, less or no systemicness and structure: pitch range, volume, tempo, voice quality (e.g. husky voice, creaky voice, speaking through the teeth), vocal effects (e.g. giggling, sobbing), vocalizations (e.g. [ʃ:], [ə'hɑ:]), etc. Paralanguage involves a lot more than just pitch.

Structure

Traditional British analysis of the internal structure of the intonation unit = *intonation(al) phrase = IP* (formerly also called intonation group, tone group, breath group, sense group).



Tonetic stress marks indicating nuclear contours and nuclear accents simultaneously.

F: $\backslash\sigma$	R: $^{\prime}\sigma$	FR: $^{\vee}\sigma$	RF: $^{\wedge}\sigma$
LF: $\backslash\sigma$ HF: $\backslash\sigma$	LR: $^{\prime}\sigma$ HR: $^{\prime}\sigma$		

Symbols indicating prenuclear accents (accents in heads): High head: $^{\prime}\sigma$ Low head: $^{\prime}\sigma$
 If there is a need, the symbol $^{\prime}\sigma$ can be used to indicate unaccented stressed syllables.

(2) Examples (Identify the structure of the following IPs)

- a. | \backslash Yes | b. | \backslash Aren't they? | c. | 'Dogs can be a \backslash nuisance . |
 d. | A 'dog is your 'best \backslash friend. | e. | And then they 'left for the \backslash library. |
 f. | But 'that's 'quite ri \backslash diculous. | g. | They \backslash are. |
 h. | It 'happened at the 'conference of the as'soci \backslash ation. |
 i. | 'What are \backslash you going to 'do to \backslash night? |

Systemicness

Word phonology ~ Sentence phonology

Halliday's (1967) theory of intonation, 3 subsystems, provided by 3 choices:

(3) *tone*: a. | I a \backslash gree. | b. | I a $^{\vee}$ gree. | c. | I a $^{\prime}$ gree. |

(4) *tonicity*: a. | What are you going to \backslash do tonight. |
 b. | What are you going to do to \backslash night. |
 c. | What are \backslash you going to do tonight. |

(5) *tonality*: a. | I'm going into town this \backslash morning. |
 b. | I'm going into \backslash town | this $^{\prime}$ morning. |

Unit 3: Division of the speech flow into IPs (Halliday's choice of tonality)

In relaxed informal speech: about 25 IPs/min, in news bulletins: betw. 35 and 40 IPs/min.

Neutral tonality

A clause that consists of 1 and only 1 IP is regarded as neutral in tonality.

(1) | A 'dog is a 'man's best \backslash friend. |

Basis: functional equivalence of IP (phonology), clause (syntax), and information unit (semantics).

Marked tonality

When IPs do not coincide with whole clauses.

- (2) | I'm going into 'town | this ,morning. |
 (3)a. | He 'did. I 'saw it. | b. | 'Daisy! Good 'morning dear. |
 The usual maximum number of stresses in an IP is 5.
 (6)a. | The 'children wrote 'postcards to their 'parents from 'camp. |
 b. | The 'office 'sends the 'students their 'grants in Oc'tober. |
 c. | The 'office 'sends the 'foreign 'students their 'grants | in Oc'tober. |
 (7) | The 'train ar'riving at 'platform 'two | is the 'ten 'twenty from 'Swansea to 'London
 'Paddington. |

Further cases of marked tonality

LISTS

- (8) | He could speak 'English, | 'French | and 'German. |
 (10)a. | We want 'red, | 'white | and 'blue flags, please. | segregatory coordination
 b. | We want 'red, 'white and 'blue flags please. | integratory coordination

OR-CONSTRUCTIONS

(YN-Questions vs. Alternative Questions)

- (61)a. | Will it be 'more or less on 'time? | b. | Will it be 'more | or 'less on time? |
 (62)a. | Do you 'want one or two 'books? | b. | Do you want 'one | or 'two books? |

MARKED THEMES

- (11) | This 'morning | I'm 'going into 'town. |
 (12)a. | Last 'night | you 'came in too 'late. |
 b. | What'ever your ex'cuse, | you should be 'in by e'leven. |
 c. | These i'deas | you must re'ject. |
 d. | If you go 'out in the 'evening, | I want you 'in by e'leven. |

INORGANIC (EXTRA-SENTENTIAL (i.e. ES) PARTS

Disjuncts (e.g. *unfortunately, briefly, frankly*), conjuncts (e.g. *nevertheless, however*), viewpoint adjuncts (e.g. *technically, from a personal point of view*), vocatives (e.g. *darling*), quoting clauses (e.g. *he said*). are normally in separate IP when in utterance-initial and medial position. When in final position, they either have an IP of their own or are incorporated into the preceding IP. The final position may also be occupied by so-called final epithets or right dislocations (e.g. *the fool* in 161k).

- (13)a. | Ho'vever, | he 'ran the 'mile in 'four 'minutes. | <CONJUNCT>
 b. | He 'ran the 'mile, | ho'vever, | in 'four 'minutes. |
 (15)a. | Po'litically, | the de'cision was a 'clever one. | <VIEWPOINT ADJUNCT>
 b. | The de'cision, | from a po'litical point of view, | was a 'clever one. |
 (16)a. | Miss 'Smith, | can you 'help me? | b. | Can 'you, | Miss ,Smith, | 'help me? |
 <VOCATIVE>
 (161)a. | I've 'never 'read it, though. | ≈ | I've 'never 'read it, | ,though. |
 <CONJUNCT>
 b. | You must 'read it, of course. | ≈ | You must 'read it, | of ,course. |
 <DISJUNCT>
 c. | He's 'not going to 'read it, you know. | ≈ | He's 'not going to 'read it, | you
 ,know. | <STYLE INDICATOR>
 d. | They've al'ready 'read it, however. | ≈ | They've al'ready 'read it, | ho'vever. |
 <CONJUNCT>
 e. | I've be'gun to 'read it, at least. | ≈ | I've be'gun to 'read it, | at ,least. |
 <DISJUNCT>

- f. | We're in a 'poor \shape, *economically*. | ≈ | We're in a 'poor \shape, | *eco-*
nomically. | <VIEWPOINT ADJUNCT>
- g. | He \drives, *normally*. | ≈ | He \drives, | *,normally*. | <DISJUNCT>
≠ | He 'drives \normally. |
- h. | I 'couldn't \speak to him, *frankly*. | ≈ | I 'couldn't \speak to him, | *frankly*. |
≠ | I 'couldn't \speak to him \frankly. |
- i. | They're \here, *John*. | ≈ | They're \here, | *,John*. | <VOCATIVE>
- j. | 'Don't \run, *he said*. | ≈ | 'Don't \run, | *he ,said*. | <QUOTING CLAUSE>
- k. | He 'shouldn't have \done it, *the fool*. | ≈ | He 'shouldn't have \done it, | *the*
,fool. | <EPITHET>

TAGS Checking vs. copy tags

Checking tags (17)a. | 'John's going \out, | \isn't he? | b. 'John's going \out, | /isn't
he? |

Copy tags (18) | 'John's going \out, | /is he? | (19) | 'John's going \out, is he? |

Tonality contrasts in grammar

DEFINING AND NON-DEFINING ITEMS

- (21)a. | My 'brother who 'lives in Nai\robi | b. | My ^vbrother, | who 'lives in Nai^vrobi |
- (22)a. | The 'man dressed in \black | stood \up. | b. | The ^vman, | dressed in ^vblack, |
stood \up. |
- (23)a. | The 'man in ^vblack | stood \up. | b. | The ^vman, | in ^vblack, | stood \up. |
- (24)a. | The diag'nosis that she made ^vyesterday | 'came as a sur \prise. |
b. | The diag^vnosis, | which she made ^vyesterday | 'came as a sur \prise. |

APPOSITION

- (25) a. | 'Tom Jones the ^vsinger comes from South \Wales. |
b. | 'Tom /Jones, the /singer, | comes from South \Wales. |
= b' | 'Tom ^vJones, | that is the ^vsinger, | comes from South \Wales. |
- (29)a. | They con'sidered Miss 'Hartley a \very good \teacher. |
b. | They con'sidered Miss \Hartley, | a \very good \teacher. |
- (32)a. | The 'news that the 'troops would be ^vleaving | has been an \nounced. |
b. | The ^vnews, | that the 'troops would be ^vleaving, | has been an \nounced. |
- (33)a. | The diag'nosis that she had ^vflu | 'came as a sur \prise. |
b. | The diag^vnosis | that she had ^vflu | 'came as a sur \prise. |

NEGATIVE DOMAIN

- (41)a. | I 'didn't /come | because he \told me. |
b. | I 'didn't come because he ^vtold me. |
- (42)a. | He 'didn't /go | so that he could 'get a pro \motion. |
b. | He 'didn't go so that he could 'get a pro^vmotion. |

REPORT CLAUSES

- (43)a. | He 'said he would \come. | ~ | He would \come, he said |
b. | Did he 'say he would /come? |
c. | I re'ported that they had 'taken a de \cision. | ~ | They'd 'taken a de \cision, I
reported. |
d. | They 'asked if he 'knew the de \cision. |
e. | He 'didn't know whether they had al'ready de \cided. |
f. | We 'very much 'hope they will \think about it. |

- (44) | He _ɹsaid, | “I'll \come”. |
 (45)a. | And then he'll 'say *who's \coming*. | indirect speech (= reported speech)
 b. | And then he'll _ɹsay, | “'Who's \coming.” | direct speech (=quotation)
 (46)a. | 'Tell me where your \brother is. | b. | 'Tell me, | “'Where's your \brother?”. |

Unit 4: Locating the nucleus within the IP (Halliday's choice of *tonicity*)

The function of the nucleus (tonic) is to indicate the focus of information or the end of new information.

- (1) Can you break an apple in two?

Neutral tonicity

To have the tonic (nuclear) syllable within the last open-class item in the IP. (Open-class items are always lexical items.) In Crystal's data 80%, in newsreading 88%.

- (1) | Can you 'break an 'apple in _ɹtwo? |

Lexical items (= content words), form open-classes mainly, but some of them are closed-system items (e.g. *here, there; now, then; today, yesterday, tonight*). Grammatical items (= function words), are closed-system items.

Broad focus = the whole IP is new information; usually with neutral tonicity:

- (1) | I 'think I'll 'go and have a 'cup of \tea. |
 (1) | 'Where are you 'going on your \holidays? |
 (1) | 'Look at that \man up there. | (6) | Did you 'have a nice _ɹtime? |
 (7) | This 'chap lived in erm a 'semi-detached ^vhouse | and next ^vdoor | there was a ^vman
 | who'd 'just bought a new ^vcar | and he was ^vtelling me | that one ^vmorning | he was
 | 'looking through the ^vwindow | ...

Narrow focus = some part of the IP is new, some given; may occur with neutral tonicity, as in (9B) or (99B), but usually has marked tonicity, as in (10B), (11B), (12B).

- (9) A: | I 'think I'll 'go and have a 'cup of \tea. |
 B: | Well, ' why don't you come and have a spot of \lunch? |
 (10) A: | 'Where are you 'going on your \holidays? |
 B: | To \Italy. | And where are you going on \your holidays? |
 (11) A: | Did you 'have a nice _ɹtime? |
 B: | We had an \awful time. |
 (12) A: | 'Look at that \man up there. |
 B: | And look at \that man. |
 (99) A: | 'Look at that \woman up there. |
 B: | 'Look at that \man up there. |

Given information is recoverable from the linguistic context or the situation or from general knowledge. (13) | He 'bought a _ɹcar | and he al'lowed his \wife to drive. |

Marked tonicity

cf. (10B), (11B), 12B), (13) above.

CONTRAST

- (14)a. Neutral: | I've been asking for `ages. |
 b. Marked (i): | I `have been asking for ages. | polarity
 c. Marked (ii): | I have `been asking for ages. | aspect/tense
- (15) | It's not what I think | but what you think. | pronoun
- (16) | Think of what you can put `into it | not what you can get `out of it. | preposition
- (17) | Re`member | I said `if. | conjunction
- (18) | That's what you're `exporting | and we're `importing. | morpheme
- (19) | He 'got a new 'bookshelf | but what we 'need is a new book `case. |
 2nd element of compound

AVOIDING TONIC ON REPEATED ITEM

- (21)a. Neutral: | 'Wales `three, | 'Belgium `one. |
 b. Marked: | 'Belgium `one, | `Wales one. |
- (22) "751-281" = | 'seven five `one | 'two `eight one |

PRESENTATION SENTENCES = EVENT SENTENCES

- (23)a. | The `doctor's coming. | ~ | The 'doctor's `running. |
 b. | An `accident has happened. | ~ | An 'accident is being in `vestigated. |
 c. | Don't `worry. | `John's going. | ~ | 'John's `eating. |
 d. | A `question was raised. | ~ | A 'question was `answered. |
 e. | The `postman called. |
 f. | The `chimney's falling down. |
 g. | Dis `cussions took place. |

FINAL ADVERBIALS AND INORGANIC ELEMENTS

- (24) Essential information: a. | The 'books are `here. | b. | 'Put the books `here. |
 Circumstantial information: c. | We've `got some `books here. |
 = | We've `got some `books | ,here. |

Also *there, now, today, yesterday*, etc., cf. also (161) in Unit 3.

- (25)a. | Let's `go now. | ≈ b. | Let's `go | ,now. | ≠ c. | 'Let's go `now. |
 (26)a. | Let's `go there. | ≈ b. | Let's `go | ,there. | ≠ c. | 'Let's go `there. |
 (27)a. | That's `all for today. | ≈ b. | That's `all | for to,day. | ≠ c. | That's `all for to `day. |
 (28)a. | I saw `John yesterday. | ≈ b. | I saw `John | ,yesterday. | ≠ c. | I saw 'John `yesterday. |

(29) = (161) in Unit 3: Final conjuncts, disjuncts, viewpoint adjuncts, style indicators, vocatives, quoting clauses, epithets.

Adjuncts of manner are organic parts of sentences, and so receive the tonic when final:

- (30)a. | 'Let's go `quickly. | b. | He 'read it very `well. |
 c. | He 'drives `normally. | d. | I 'couldn't 'speak to him `frankly. |

ADJECTIVAL WH-OBJECTS (combinations of WH-determiner+N as objects)

- (55)a. | What `seeds did you use? | b. | Which `course did you take? |

- c. | Whose ad'vice will you accept? |
 (56)a. | 'What did you 'do? | b. | 'Whose ad'vice did you find most 'useful? |

OBJECTS WITH PREDICTABLE VERBS AFTER THEM

- (57)a. | 'John has a 'duty to perform. | b. | 'John has a duty to per'form. |
 (58)a. | I have a 'point to 'emphasize. | b. | I have a 'point to make. |
 (59)a. | The end of the chapter is reserved for various 'problems to com'puterize. |
 b. | The end of the chapter is reserved for various 'problems to solve. |

GIVEN INFORMATION GETS THE NUCLEUS

Given and contrasted

- (31) | 'Tom, Dick and Harry 'all got 'firsts | but ^vTom | was given the 'prize. |

Given and denied (insistence clauses)

- (32)A.- | How many 'tea-bags do you use? |
 B.- | I don't 'use tea-bags. |
 (33)A.- | Has 'John read 'Slaughterhouse ,Five? |
 B.- | 'No, | John doesn't 'read books. |

Tonicity by default

- (34)A.- | 'What can you re'member about those 'days? |
 B.- | I 'don't know that there is 'anything 'to remember. |

Tonicity contrasts in grammar

- (35)a. | I've 'never 'taught myself. | ≠ b. | I've 'never taught my'self. |
 (36)a. | 'Shoot, John. | ≈ | 'Shoot, | ,John. | ≠ b. | 'Shoot 'John. |
 (37)a. | They 'didn't 'come, happily. | ≈ | They 'didn't 'come, | ,happily. |
 ≠ b. | They 'didn't come 'happily. |
 (38)a. | He 'asked 'Joe, stupidly. | ≈ | He 'asked 'Joe, | ,stupidly. |
 ≠ b. | He 'asked Joe 'stupidly. |

Unit 5: Nuclear tones = Nuclear contours (Halliday's choice of tone)

Nuclear contours:

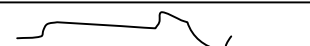

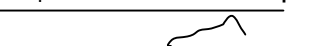

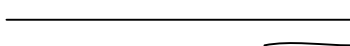
High Fall = HF (1a), Low Fall = LF (1b),
 High Rise =HR (2a), Low Rise =LR (2b),
 Fall-Rise = FR (3 and 4),
 Rise Fall = RF (5),
 Mid level =M (6)

- (1)a. | Are you 'going a'way? | b. | Are you 'going a,way? |



- (2)a. | Are you 'going a'way? | b. | Are you 'going a,way? |



- (3) | I 'go there ^vusually. | = simple FR

- (4) | But I didn't fail the e,xam. | = compound (divided) FR

- (5) | He ,got a dis^tinction. |

- (6)a. | When I 'went to -Africa... | b. | When I ,went to -Africa... |



N.B. Re (3) and (4): In the simple FR the syllables after the fall may gradually rise one after the other, in the compound they are at the lowest level until the final low rise. In the simple FR the rise ends at a higher pitch than in the compound FR. The difference is sometimes neutralised, as in (501):

(501) | I \like ,chocolate. | = | I ^vlike chocolate. |

Re (6a, b): The Mid nuclear contour is an alternative to a non-sentence-final LR.

Local meanings of nuclear contours:

FALLS: **HF, LF:** 'final, complete, definite, separate'

- (10)a. | He 'stayed for three \hours. |
 b. | He 'stayed for three \hours. | 'weighty'
 c. | He ,stayed for three \hours. | 'protesting'

RF: 'final, complete, definite, separate' + 'impressed'

- (11) (He got a first!) | ^Did he?! | At ^Cambridge, | ^too! | ^Mm! |
 (12) | ^Clever! |

or 'final, complete, definite, separate' + 'challenging' = 'negatively impressed'

- (13)a. (They're emptying the dustbins.) | They ^always empty them on Fridays. |
 b. (I couldn't find any adverbs.) | But there are ^lots of them in the text. |
 c. (I need a nice long holiday.) | Don't we ^all! |

RISES (dependent = non-sentence-final): LR, HR, FR, (M)

On subjects:

LR: formal+non-final, **HR:** casual+non-final, **M:** non-final, **FR:** contrast+non-final

- (1) | Private ^venterprise | is always e^fficient, | whereas public ,ownership | means \inefficiency. |

On adverbials:

LR: formal+non-final, **HR:** casual+non-final, **M:** non-final, **FR:** emphatic+non-final

- (15)a. | Un^vfortunately, | }
 b. | Un,fortunately, | } their 'best 'player didn't turn \up. |
 c. | Un'fortunately, | }
 d. | Un-fortunately, | }
- (16)a. | \Literally, | he banged his head against the \wall. | <REINFORCING>
 b. | Of \course | if you ^vdo it that way, | it won't \work. |

- c. | Be[\]sides, | he didn't get a high enough [\]mark. |
 (17)a. | Pre[\]sumably | he thinks he [\]can. | <LIMITING>
 b. | [\]Usually | he comes on [\]Sundays. |
 c. | Acci[\]dentally | he got it [\]right. |
 (18)a. | [\]Clearly, | he's not as good as he [\]thinks he is. |
 b. | [\]Clearly, | he's not as good as he [\]thinks he is. |
 (19)a. | I went to [\]London | on [\]Monday. |
 b. | He didn't get a high enough [\]mark | un,fortunately. |
 (20)a. | I do it [\]this way | [\]always. | b. | He made a [\]mess of it | de[\]liberately. |

On coordinated clauses:

- (21)a. | He took the [\]car, | and drove to [\]London. |
 b. | He cleaned it -up, | and sold it for two hundred [\]pounds. |
 (22)a. | She's twenty-eight years [\]old, | and lives in East [\]Grinstead. |
 b. | She's twenty-eight years [\]old, | and thinking of starting a [\]family. |

On subordinate clauses:

- (23)a. | Because I hadn't had any [\]aspirins, | I felt a bit [\]better. |
 b. | I feel a bit [\]better | when I don't take any [\]aspirins. |
 c. | I felt a bit [\]better | because I hadn't had any [\]aspirins. |

RISES (independent = sentence-final)

LR on declaratives: '*uncertainty*',

with NO preceding high pitch accent: '*non-committal, grumbling, reserved, cautious*'

- (24)a. | It's [\]not. | b. | He didn't help [\]me. |
 with a preceding high pitch accent: '*soothing, reassuring, patronizing*', except in YNQs, where this is *normal* ('*politely interested*') for BrE.
 (25)a. | It [\]won't [\]hurt. | b. | I'll be [\]back next [\]week. |
 c. | 'All you'll [\]feel is [\]one little [\]prick. |
 (26) | 'Can you [\]help me? |

HR: '*echo or repetition question*'

- (27)a. (I'm taking up taxidermy this autumn.) | Taking up [\]what? |
 b. (She passed her driving test last week.) | She [\]passed? |
 c. (When are you going to do it?) | When am I going to [\]do it? |
 d. (Make sure you get there at ten.) | At [\]ten? |
 (28)a. | [\]Pardon? | b. | [\]What? |

But also on *non-echo, non-repetition questions*. BrE: '*casual*', AmE: '*normal*'

- (29) | Are you [\]going? |

FR -- '*warning*' on declaratives and imperatives:

- (30) a. | You won't [\]like it. | b. | Be [\]careful you don't [\]fall. |
 -- on declaratives: often '*reservations, emphatic contrast, contradiction*'
 (31)a. (When will we be seeing you?) | Well, | I could come on [\]Saturday. |
 b. | I like his [\]wife, | although I can't stand [\]him. |
 c. (Is that part of the coast very crowded at weekends?) | Well [\]Hastings will be. |
 d. (That was quite a good hotel really.) | It wasn't what you'd call [\]clean. |
 e. (She's twenty-two, isn't she?) | Twenty-[\]nine. |

Interaction with negatives (a special case of reservations):

- (32)a. | I'm not going to perform \anywhere. |
 ≠ b. | I'm not going to perform ^vanywhere. |
- (33)a. | Cheap tickets are not available to \anyone. |
 ≠ b. | Cheap tickets are not available to ^vanyone. |
- (34)a. | She didn't 'go | because she needed a \holiday. |
 ≠ b. | She didn't go because she needed a ^vholiday. |
- (35)a. | \All of them didn't pass the exam. | ≠ b. | ^vAll of them didn't pass the exam. |
- (36)a. | He didn't get \one credit. | ≠ b. | He didn't get ^vone credit. |
- Compound (divided) FR:** 'I told you so.' = 'self-justificatory':
- (37) | I \thought she was ,married. | (and so she was!) (38) | I \knew he would ,do it. |
 or just 'appealing':
- (39)a. | \Please sit ,down. |
 b. | I'm \longing to see your new ,coat. |
 c. | Do you \have to be so ,stubborn? |
 d. | \Why don't you keep your ,mouth shut? |

Conditioning factors:

- Syntactic type: (40)a. patronizing on declaratives: | You 'mustn't let him ,hassle you. |
 b. neutral on YNQs: | Do you 'think it would ,work O.K.? |
- Tense: (41)a. | I \knew you wouldn't be able to ,do it. |
 b. | I \know you won't be able to ,do it. |
- Speaker-Hearer relationship: (42)a. (He got a distinction.) | ^Did he? |
 b. (I don't like to keep reminding him.) | Well you
 ^ought to.
- Context: (42) | ^Brilliant! | Sarcasm: said about a disaster.

Unit 6: Summary of the British tradition of intonation study

For inst., Palmer 1922, Armstrong & Ward 1926, Kingdon 1958, O'Connor & Arnold 1963/1973, Halliday 1967, Roach 1983, Tench 1996, Wells 2006, etc.

- (a) Basic notion: accent = stress + intonational prominence
 (b) Tonetic stress marks
 (c) Internal constituent structure of the intonation(al) phrase = optional prenuclear part + obligatory nuclear part
 (d) Nuclear contours = meaningful wholes
 (e) Analysis in terms of pitch movements = contour analysis

Unit 7: Intonation, its functions

A) The informational function = *The organization of information ("What is being said?")*

Division of the information into pieces, the staging (= ordering) and grading of these pieces (as major, minor, incomplete), signalling new and given information.

B) The communicative or illocutionary function = *The realization of communicative function ("Why is it being said?")*

- (1)a. | 'Isn't it \hot? | b. | 'Isn't it 'hot? |

(10) H But then the 'next 'student | got it 'right. | |
 M
 L a 'really 'clever bloke |

(11) H He's 'coming | to'night. | |
 M
 L he 'said |

Two further, minor, intonational functions:

F) The style-indicating function = *The identification of speech styles/genres*

G) The indexical function = *The identification of the speaker*

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PRACTICAL PART

(Exercises)

Tones

Ex. 1. (PR Unit 15) Repetition of tones

Listen and repeat: (High and low varieties are not distinguished.)

Fall:	\yes	\no	\well	\four
Rise:	/yes	/no	/well	/four
Fall-rise:	√yes	√no	√well	√four
Rise-fall:	^yes	^no	^well	^four
Level:	-yes	-no	-well	-four

Ex. 2. (PR Unit 15) Production of tones (High and low varieties are not distinguished.)

When you hear the number, say the syllable with the tone indicated:

1. /them	2. \why	3. √well	4. \John
5. /what	6. ^no	7. \here	8. √you
9. /now	10. \end		

Ex. 3. (PR Unit 15) Identification

You will hear each syllable twice. Write an appropriate tone symbol.

one	two	three	four	five
six	now	you	more	us

Ex. 4. (PR Unit 15) Production in context

When you hear the sentence, say the response with the tone indicated:

Hello, is that 661071?	/Yes
Do you know any scientists?	√Some
Keep away from that road!	\Why
How many dogs have you got?	√Two
Have you ever heard such a terrible thing?	^No
What colour is your car?	\Red
Do you want my plate?	/Please
Don't you like it?	√Yes
You haven't seen my watch, have you?	/No
What was the weather like?	\Wet

Ex. 5. (PR Unit 15)

In the following sentences and bits of dialogue, each underlined syllable must be given an appropriate tone mark. Write a tone mark just in front of each of the syllables.

- a. This train is for Leeds York Darlington and Durham
- b. Can you give me a lift
Possibly Where to
- c. No Certainly not Go a way
- d. Did you know he'd been convicted of drunken driving
No
- e. If I give him money he goes and spends it
If I lend him the bike he loses it

He's completely unreliable

Ex. 6. (PR Unit 16) Identifying the tonic syllable

Listen and repeat, then underline the tonic syllable.

- | | |
|----------------------------------|--------------------------------|
| 1. We could go by bus | 2. Of course it's broken |
| 3. The car was where I'd left it | 4. How much is the biggest one |
| 5. I knew it would go wrong | 6. It was too cold |
| 7. Here it is | 8. That was a loud noise |
| 9. We could go from Manchester | 10. Have you finished |

Ex. 7. (PR Unit 16) Pronouncing the tonic syllable

When you hear the number, say the item with the tonic syllable in the place indicated, using a falling tone:

- | | | |
|------------------------------|------------------------------|------------------------------|
| 1. Don't do <u>that</u> | 2. Don't <u>do</u> that | 3. <u>Don't</u> do that |
| 4. Write your <u>name</u> | 5. Write <u>your</u> name | 6. <u>Write</u> your name |
| 7. Here's my <u>pen</u> | 8. Here's <u>my</u> pen | 9. <u>Here's</u> my pen |
| 10. Why don't you <u>try</u> | 11. Why don't <u>you</u> try | 12. Why <u>don't</u> you try |
| 13. <u>Why</u> don't you try | | |

Ex. 8. (PR Unit 16) Repetition of intonation phrases

Listen and repeat, trying to copy the intonation exactly; no transcription is given.

What time will they come

A day return to London

The North Pole would be warmer

Have you decided to buy it

I recorded them on cassette

Ex. 9. (PR Unit 16) Partial analysis of intonation phrases

The items of Ex. 8 will now be said again twice, and you must do the following things:

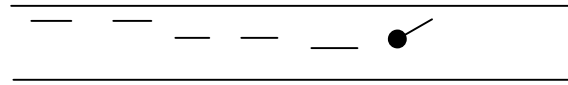
- Identify the tonic syllable and underline it.
- Identify the tone (fall and rise only) and place the appropriate tone mark before the tonic syllable.
- Identify the stressed syllables preceding the tonic syllable and place the mark ' before each.

- | What time will they come|
- | A day re turn to London|
- | The North Pole would be warmer|
- | Have you de cided to buy it|
- | I re corded them on cas sette|

Ex. 12. (PR Unit 16)

The following sentences are given with intonation transcribed. Draw underneath them a diagram of the pitch movements, leaving a gap between each syllable. Example:

'Would you 'like some 'more 'milk



- a) 'Only when the ^Vwind blows
- b) 'When did you say
- c) 'What was the \name of the place

Ex. 13. (LV)

Identify the internal structure of the following IPs in terms of PH, H, N, and T. Utterance (j) consists of several IPs, so the IP boundaries are essential and cannot be left out. The symbol □ stands for pause.

- a) \Yes
- b) \Aren't they?
- c) 'Dogs are 'men's best \friends
- d) A 'dog is a 'man's 'best \friend
- e) And then they 'left for the \library
- f) But 'that's 'quite ri'diculous
- g) They \are a few
- h) In a 'little 'less than an \hour
- i) In about an \hour
- j) |and then 'nearer to the ^Vfront |□ on the ,left| there's a 'bit of \forest| 'coming 'down to the \waterside|□ and then a 'bit of a ,bay|□

Ex. 14. (PR Unit 17) Repetition of tonic syllable plus tail

Listen and repeat, taking care to continue the pitch movement of the tone over the tail:

- | | | |
|-----------------------------------|--------------------------------------|--------------------------------------|
| 1. \Bill 'bought it | 5. ^V Four of them 'came | 9. \Why do you 'do it |
| 2. 'Bill 'bought it | 6. ^V Four of them 'came | 10. ^V Why do you 'do it |
| 3. ^V Bill 'bought it | 7. ^V Four of them 'came | 11. ^V Why do you 'do it |
| 4. ^Bill 'bought it | 8. ^Four of them 'came | 12. ^Why do you 'do it |

Ex. 15. (PR Unit 17) Production of tonic syllable plus tail

The items from Ex. 14. will be used again. When you hear the number, say the item with the tone that is marked.

Ex. 16. (PR Unit 17) High and low head

The following IPs will be repeated with high and low heads. Listen and repeat:

- | 'Taxes have 'risen by 'five per \cent |
- | ,Taxes have ,risen by ,five per \cent |
- | 'Haven't you 'asked the 'boss for /more|
- | ,Haven't you ,asked the ,boss for /more|
- | We 'don't have 'time to 'read the \paper|
- | We ,don't have ,time to ,read the \paper|
- | 'Wouldn't you 'like to 'read it on the /train|
- | ,Wouldn't you ,like to ,read it on the /train|

Ex. 17. (PR Unit 17) Transcription of IPs.

Each item will be pronounced as one IP, and will be heard three times. You must do the following things:

- a) Identify the tonic syllable and underline it.
 - b) Decide which tone it carries and place the appropriate tone mark before the tonic syllable.
 - c) Identify the stressed syllables preceding the tonic syllable and mark them high (ˈ) or low (ˌ).
 - d) Listen for stressed syllables in the tail and mark them (if there are any) with a raised dot (˙).
1. |Now here's the weather forecast |
 2. |You didn't say anything about rates |
 3. |A few years ago they were top |
 4. |No one could say the cinema was dead |
 5. |Is there anything you wouldn't eat |
 6. |Have you ever considered writing |
 7. |That was what he claimed to be |
 8. |We try to do our shopping in the market |
 9. |But I never go there now |
 10. |It wouldn't be difficult to find out |

Ex. 18. (PR, Unit 17)

The following sentences are given with intonation marks. Sketch the pitch in the way shown in Exercise 12, i.e. within two horizontal lines, leaving a gap between each syllable.

- a) ˈWhich was the ˌcheap one did you ˈsay
- b) I ˈonly ˈwant to ˈtaste it.
- c) ˌShe would have ˌthought it was ˆobvious
- d) There ˈwasn't ˈeven a ˈpiece of ˌbread in the ˈhouse
- e) ˈNow will you beˈlieve me

Ex. 19. (PR, Unit 17)

This exercise is similar, but here you are given polysyllabic words and a tone; you must draw an appropriate pitch movement between the lines.

- a) (rise) *opportunity*
- b) (fall-rise) *actually*
- c) (fall) *confidently*
- d) (rise-fall) *magnificent*
- e) (rise) *relationship*
- f) (fall-rise) *afternoon*

Ex. 20. (PR, Unit 18) Extracts to transcribe

Each extract will be heard 3 times, with 4-5 seconds between the repetitions. Mark the intonation, the instructions for how to do this are given in the text for Ex. 17. In addition, use the vertical line (|) for IP boundaries.

One IP

1. it looks like a French maga zine
2. the television is plugged in
3. does your colander have a handle
4. ('s) a flap on it
5. you tell me about yours
6. well dark hair
7. more than half way
8. but er not in the other corners
9. a sort of Daily Sketch format newspaper

Two IPs

10. on the top on the lid
11. well they're on alternate steps they're not on every step
12. what about the vent at the back
13. and a lady's handbag hanging on a nail on the wall
14. you do the left hand bit of the picture and I'll do the right hand bit
15. we're being very particular but we just haven't hit upon one of the differences yet

Three IPs

16. and what about your television two knobs in the front

Tonality**Ex. 21.** (PR, Unit 19)

The following sentences are given without punctuation. Underline the appropriate tonic syllable places and mark IP boundaries where you think they are appropriate.

- a. he wrote the letter sadly (*he wrote the letter in a sad way*)
- b. he wrote the letter sadly (*it's regrettable that he wrote the letter*)
- c. four plus six divided by two equals five
- d. four plus six divided by two equals seven
- e. we broke one thing after another fell down
- f. we broke one thing after another that night

Ex. 22. (LV) Work out the meanings (and grammatical differences) of the following:

- 1.a. | He ate some 'soup | some bread and 'butter | and a piece of 'cake |
 b. | We need 'milk | some 'bread | and 'butter |
- 2.a. | They lost against \Newport of all teams | 'didn't they? |
 b. | They lost against \Newport of all teams | \didn't they? |
 c. | They lost against \Newport of all teams | 'did they? |
 d. | They lost against \Newport of all teams | 'did they? |
- 3.a. | The man and the woman dressed in 'black | stood \up |
 b. | The 'man | and the woman dressed in 'black | stood \up |
 c. | The man and the 'woman | dressed in 'black | stood \up |
- 4.a. | They sent Joan a waitress from the ho'tel |
 b. | They sent \Joan | a waitress from the ho'tel |
 c. | They sent \Joan | a \waitress | from the ho'tel |
- 5.a. | They called Susan a \waitress | b. | They called \Susan | a \waitress |
- 6.a. | He didn't go because he was \tired | b. | He didn't 'go | because he was \tired |
- 7.a. | And then he'll say who's \coming | b. | And then he'll 'say | who's \coming |
- 8.a. | They've left the \others | b. | They've \left | the ,others |

- 9.a. | John says Amanda is a \fool | b. | ^VJohn | says A,manda | is a \fool |
- 10.a. | The boy who couldn't cycle felt \miserable |
 b. | The ^Vboy | who couldn't ^Vcycle | felt \miserable |
- 11.a. | She's my friend \Carol | b. | She's my \friend | \Carol |
 c. | She's my \friend Carol | d. | She's my \friend | ,Carol |

Tonicity

Ex. 23. (LV) Work out the meanings (and grammatical differences) of the following:

- 1.a. | I've never \taught myself | b. | I've never taught my\self |
 2.a. | \Shoot John | b. | Shoot \John |
 3.a. | They didn't come \happily | b. | They didn't \come happily |
 4.a. | This is the girls' \school | b. | This is the \girls' school |
 5.a. | I thought it would \rain | b. | I \thought it would rain |
 6.a. | I fed her dog \biscuits | b. | I fed her \dog biscuits |
 7.a. | This is what I \meant | b. | \This is what I meant |
 8.a. | I have instructions to \leave | b. | I have in\structions to leave |
 9.a. | We only met Liz to\day | b. | We only met \Liz today |

Ex. 24. (LV) Comment on the following:

- 1.a. | The 'Queen said she was 'happy to be in 'Manchester | and then the 'Duke made a \joke |
 b. | The 'Queen said she was 'happy to be in 'Manchester | and then the \Duke made a joke |
- 2.a. | Like most ^Vbachelors | my 'husband likes 'chatty \girls |
 b. ?* | Like ^Vmost bachelors | my 'husband likes 'chatty \girls |

Ex. 25. (LV) Underline the contrastive tonic in the following:

- a. (I want you to finish your lessons.) But I have finished.
 b. (Why didn't you go to the party?) Well, I did go.
 c. (Please hurry.) I am hurrying.
 d. (Will you open the window?) It is open.
 e. (When are they going to India?) But they are in India.
 f. (She hates journalists.) Bad luck. I am a journalist.
 g. (You can only get milk here.) OK, I want milk.
 h. (Chester is a nice town.) My brother lives in Chester.
 i. (This is not silver.) It is silver, sir.
 j. (Thank you, Mr. Black.) Thank you, Mr. White.
 k. (Bath is a marvellous place.) I know. I studied in Bath.
 l. (That's a restaurant for lawyers only.) That's all right. We are lawyers.

Ex. 32. (WSA) The Rhythm Rule

Double-accented words / phrases, e.g. 'thir'teen, 'Buckingham 'Palace

* *
[A_w B_s]

Iambic Reversal: * * * * *
[A_w B_s] Y_s → [A_w B_s] Y_s

Iambic Reinforcement: * * * * *
X_s [A_w B_s] → X_s [A_w B_s]

(Read aloud the following pairs of sentences illustrating Iambic Reversal.

- 1.a. The **'Budapest** 'climate's of a **'continental** 'type.
b. He 'lives in Buda'pest. The 'climate's **conti'nenal**.
- 2.a. 'Have a piece of **'home-made** 'cake.
b. This 'cake's **home-'made**.
- 3.a. He has **'five o'clock** 'tea nearly 'every after'noon.
b. He has **'afternoon** 'tea. It's 'nearly **five o'clock**.
- 4.a. There's a **'man down'stairs**; he's 'come from **New 'York**.
b. A **'New York** 'journalist 'lives in the **'downstairs** 'room.
- 5.a. We 'watched the 'changing of the **'Buckingham Palace** 'guards.
b. It's 'near **Buckingham 'Palace**. It's 'not very far from **'Buckingham 'Palace**.
- 6.a. He's 'just a 'silly, **'empty-headed** 'boy.
b. He 'never re'members 'anything; he's 'quite **empty-'headed**.
- 7.a. He 'gave me an **'off-hand** 'answer.
b. Well, 'that's his 'nature; he's 'always **off-'hand**.
- 8.a. 'Why didn't you 'hurry? 'Now your **'soup's** **stone-'cold**.
b. Well, **'stone-cold** 'soup's very 'nice in this 'hot 'weather.
- 9.a. The 'sight of a 'distant 'ship 'raised our **'hopes** of **sal'vation**.
b. She does 'fine 'work in the **'Salvation** 'Army.
- 10.a. I'll 'give you a **'post-dated** 'cheque.
b. 'By the 'way, I 'hope you don't 'mind its **'being** **post-'dated**.
- 11.a. 'How can such a **'good-natured** 'woman 'have such a **'bad-tempered** 'daughter?
b. The 'mother's ex'tremely **good-'natured**, but the 'girl's unbe'lievably **bad-'tempered**.
- 12.a. She's 'also **cross-'eyed**, not to 'mention **knock-'knee'd**, which 'doesn't 'add to her at'tractions.
b. But, of 'course, there's 'no reason 'why a **'cross-eyed** or **'knock-knee'd** 'person should 'also be **bad-'tempered**.
- 13.a. 'What's that **'reddish-brown** 'object over 'there among the 'trees?
b. I 'think it's a 'deer; but it 'looks to 'me more 'grey than **reddish-'brown**.
- 14.a. Is 'this 'hot enough for 'you to 'shave with? I'm a'fraid it's 'only **luke'warm**.

- b. I 'don't like 'shaving with **'lukewarm 'water**, but it's 'better than 'nothing.
- 15.a-b. They 'crossed **Hyde 'Park** and 'waited at **'Hyde Park 'Corner**.
- 16.a. He has a 'charming little **'week-end 'cottage**.
b. He 'goes there 'every **week-'end**.
- 17.a. She's 'wearing her **'navy-blue 'costume**.
b. I 'always 'think she 'looks her **'best in navy-'blue**.
- 18.a. The **'sardine 'sandwiches** were de'licious, but the to'matoes were 'all **over'ripe**.
b. **'Overripe 'fruit** gets 'squashed easily. I 'love **sar'dines!**
- 19.a. 'Do you like **'underdone 'meat?**
b. 'Not 'usually. Ex'cept 'steak, which I 'like 'very **under'done**.
- 20.a. I 'want a **'third-class 'ticket to King's 'Cross**. I 'always 'go **third-'class**.
b. **'King's Cross 'Station** is a 'London 'terminus.
- 21.a. There's a **'good-looking 'girl** over 'there in a **'light blue 'hat**.
b. She's 'quite **good-'looking**; her 'hat's **light 'blue**.
- 22.a. He 'leads an **'anti-social 'life**; he does **'illegal 'business** on the 'local **black 'market**.
b. His **'black market 'deals** are 'quite **il'legal**; 'that's why I 'say it's **anti-'social**.
- 23.a. It's a 'concert by the **'Belgrade 'Symphony Orchestra**.
b. It's **'near Bel'grade**.
- 24.a-b. She has **'artificial 'eyelashes**; her **'pearls** are **ati'ficial**.
- 25.a. The **'upstairs 'room** has an **'outside 'staircase**.
b. He 'lives **up'stairs**; there's a **'bell out'side**.
- 26.a. Our **'absent-minded pro'fessor** wears a **'second-hand 'wig**.
b. Our pro'fessor's **absent-'minded** and his **'wig** is **second-'hand**.
- 27.a. He's **'inside 'right** for the **'Berlin 'team**.
b. 'Put it **'right in'side**; it's 'made in **Ber'lin**.
- 28.a. He's an **'unknown 'member** of a **'diplomatic 'mission**.
b. Be 'very **diplo'matic** as he's 'quite **un'known**.
- 29.a. It's a 'shop in **Picca'dilly** – a 'well-known **'Piccadilly 'jeweller's**.
b. Yes, it's 'quite **well-'known**. 'How do I 'get there? Well, it's 'not so 'far from **'Piccadilly 'Circus**. You can 'get out at **'Piccadilly Circus 'Station**.
- 30.a-b. He was 'born in **'nineteen-nine'teen** (1919)

Ex. 33. (LV) Intonational transcription

Provide a traditional transcription of the intonation of the following conversation, by using tonetic stress marks. Do it in steps: first identify the intonational phrases, then the stressed syllables, then the nuclear contours. Use a pencil and a rubber.

Tapescript 1: A journalist is interviewing Mr Williams about his job (A)

A: What's your job, Mr Williams?

B: I'm a writer.

A: That's interesting. What sort of thing do you write?

B: Well, uhm articles for newspapers and maga zines eh film re views, you know, uhm and oc casionally some fiction, poems and short stories.

A: Do you find it a very de manding job?

B: Well. Yes and no. It's very nice to work at home, of course, and have the choice of to work, but I work long hours at home, usually ten hours or more a day. And it's very lonely some times sitting in front of a typewriter.

A: What're you working on at the moment?

B: Well, actually I'm doing something very different from my usual work, eh, I'm writing a bi ography of Leonard Benson, the jazz musician.

A: So I sup pose you're spending a lot of time to gether.

B: Well, no, in fact he lives in the States. I'm doing a lot of re search, naturally. He's visiting this country at the moment and I have an ap pointment with him, but we haven't met very often.

A: Well, thank you, Mr Williams. That was very interesting. And good luck with the book.

B: Not at all.

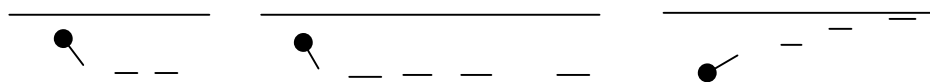
APPENDIX:

i. O'Connor & Arnold's intonational transcription symbols

(Based on D. O'Connor & G.F. Arnold 1961)

No Intonation Phrase (IP) without a *nuclear syllable* (= *tonic syllable, tonic, nucleus*). This bears the primary accent (i.e. it is not only stressed but also carries or begins a nuclear contour). May be followed by an optional *tail*. A stress within the tail can be indicated by a raised dot: 'x.

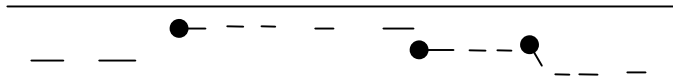
(1)a. | \Look at it. | b. | \Both of them were 'here. | c. | ^What did you 'say? |



Before the nucleus there may be a prehead and a head.

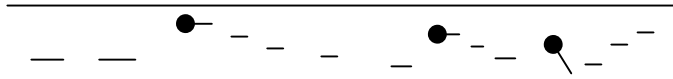
The *Head* is that part of an IP which extends from the first accented syllable up to, but not including, the nuclear syllable. This can be a High Head (also known as Stepping Head), as in (2), or a Low Head, as in (4). The symbol of the high head is 'x.

(2) | They were 'practising their Hun'garian \diligently. |



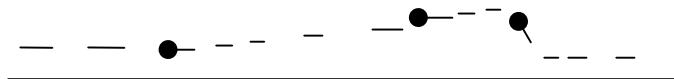
Before a FR nucleus, the High Head is realised as a Sliding Head (this has no different symbol because it is in complementary distribution with the Stepping Head):

(3) | They were 'practising their Hun'garian ^diligently. |



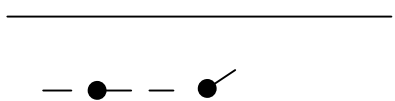
The head can also be a Low Head, symbol: ,x.

(4) | They were ,practising their Hun,garian \diligently. |

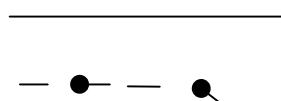


But with a Rising nuclear contour, or with a Low Falling nuclear contour, the Low Head remains low all the way through:

(5) | Is ,that the ,end? |



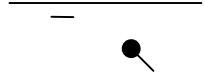
| The ,bus was \late. |



Accented syllables in the head are said to bear secondary accent. These are not only stressed, but are associated with pitch change, however, unlike the nuclear syllable, they do not initiate nuclear tones.

Syllables before the first accent constitute the prehead. The *Prehead* is normally low or mid (these have no symbol, cf. (2), (3), (4), (5)), but it can be high as well, and then its symbol will be a raised circle: °x, as in (6)

(6) |° The \brute. |



ii. The Autosegmental Approach to Intonation

Autosegmental Phonology, by J.A. Goldsmith (1976). Phonological representations have several autonomous tiers of representation, with events of different kinds taking place on each tier, partly simultaneously.

(1) tonal tier: LH L
 V |
syllabic tier (axis): fa ri 'farm' (in Margi, a language spoken in Nigeria)

Autosegmental phonology represents a 'non-linear' approach.

The current trends in intonational research have been called by Ladd (2008) the *autosegmental-metrical (AM) approach*, with an autosegmental component (largely for intonation) and a metrical component (= largely for stress).

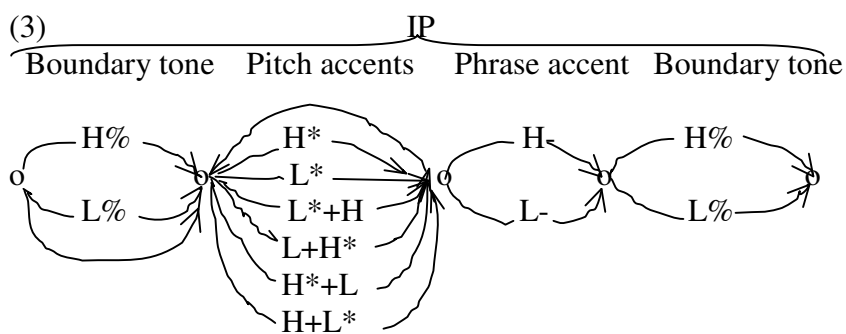
Phonological goal of the AM approach: to characterize intonation contours in terms of a string of categorically distinct elements. Phonetic goal of the AM approach: to provide a mapping from phonological elements to continuous acoustic parameters.

The first great work in this approach was **Janet Pierrehumbert (1980, publ. 1987)**. (a) She uses levels rather than contours (= levels analysis, an inheritance of Amer. structuralism) but restricted the number of levels to two: H and L. (b) She does not recognize a constituent structure within the IP but regards it as a sequence of boundary tone, one or more pitch accents, phrase accent, boundary tone. (Phrase accents and boundary tones together can be called edge tones.)

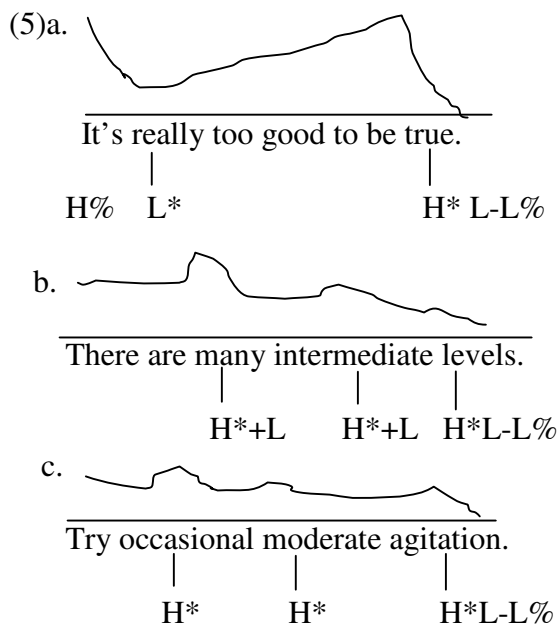
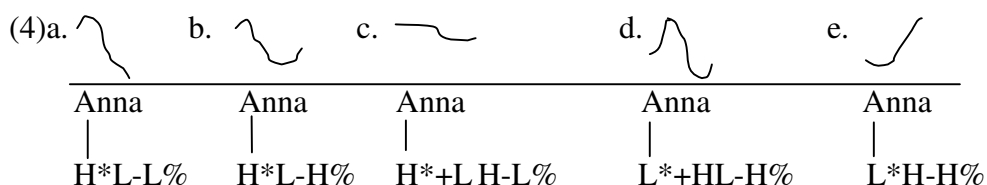
(2) Pitch accents: a. H*, b. L*, c. L+H*, d. H+L*, e. L*+H, f. H*+L

N. B. The bitonal pitch accents contain a leading tone (2c, d) or a trailing tone (2e, f) in addition to the starred (or central) tone.

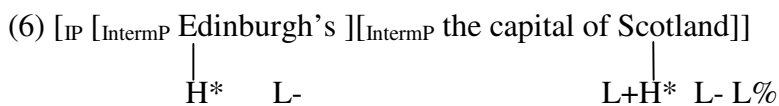
All possible tunes of Engl. can be generated by the following tonal grammar:



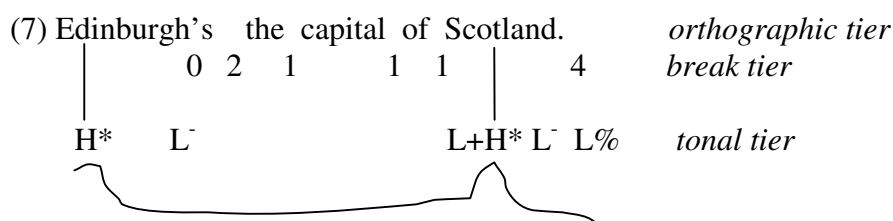
- N.B. 1. The term 'phrase tone' is a possible alternative to the term 'phrase accent'.
 2. All combinations are legal.
 3. No difference betw. "prenuclear" and "nuclear" accents.



M. E. Beckman & J. B. Pierrehumbert (1986) introduced a second kind of intonational unit: the Intermediate Phrase (IntermP = a sequence of pitch accents followed by a phrase accent, in addition to the generally recognized Intonational Phrase (IP = a sequence of pitch accents followed not only by a phrase accent but also by a boundary tone).



Pierrehumbert's theory gave rise to a new kind of intonational notation (transcription), the **ToBI system** (“**T**ones and **B**reak **I**ndices”), see Beckman & Elam (1997). The system indicates (i) the tones, i.e. pitch accents, phrase accents, boundary tones, and (ii) the strength of the breaks between the neighbouring words with a numeral from 0 to 4. **4** is the break index between IPs, **3** between IntermPs, **1** between words that have not grown together within IntermPs, and 0 between words that have grown together. The break index **2** is exceptional because it is bifunctional: it is reserved for breaks between IntermPs which are less strong than the expected 3 and for breaks that are stronger than the expected 1 between words within an IntermP.



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- Pierrehumbert, J. 1980. *The Phonetics and Phonology of English Intonation*. PhD Dissertation. Massachusetts Institute of Technology.