UNIVERSITY OF GUELMA **SECOND YEAR**

DEPARTMENT OF ENGLISH LITERATURE & LANGUAGE

PHONETICS **GROUP: 1, 2 & 3**

I. Stress

Linguists admit that finding an accurate definition of stress is highly problematic, yet they all agree that it is a matter of greater auditory prominence. In this matter, Katamba says that "*An element that is stressed is highlighted so that it becomes auditorily more salient than the rest of the elements in the string of which it is part.*" (1989: 221) and M. Léon et. al see that stress is the result of a physiological effort that is manifested by an increase of length, intensity and frequency and confirm that

> L'accentuation est le résultat d'un effort expiratoire et articulatoire qui se manifeste par une augmentation physique de longueur, d'intensité et éventuellement un changement de fréquence en passant de syllabe inaccentuée à accentuée ou au cours de l'évolution de la syllabe accentuée.
>
> (1997: 150)

Concerning the terminology of the word 'stress', it is replaced in some books by the word 'accent', but it appears that Cruttenden evoked this matter by saying that

> In the past the word 'stress' has been used of the three terms in different and confusing ways. It has sometimes been used simply to refer to syllables (or vowels) made prominent for linguistic purposes, either in words or in sentences […] The term 'accent' has also been used to refer to syllables made prominent for linguistic purposes.
>
> (1997: 13)

1) Criteria

The most important criteria that must be analyzed in the detection of stress are **pitch**, **length** and **loudness**[1]. Stressed syllables have been noticed to have higher pitch than the rest of the syllables; moreover, they tend to be louder and longer than the others and besides, their production needs more respiratory energy; correspondingly, Roach states that

> Experimental work has shown that these factors are not equally important; the strongest effect is produced by pitch and length is also a powerful factor. Loudness and quality have much less effect.
>
> (1997: 86)

Consistent to Roach's findings, Léon affirms that length, pitch and loudness are the essence of stress but sees that length, almost always functions as its essential mark by saying that

> Au plan de la perception, on parlera de paramètres de durée, d'intensité et de hauteur […] Il reste que la durée, elle, fonctionne presque toujours comme la marque essentielle de l'accentuation.
>
> (2007: 150)

Thus, the three principal criteria used in detecting stressed syllables in any language are:

a) Length

Normally, stressed syllables tend to be longer than unstressed syllables whether they contain long vowels, diphthongs or not. According to Cruttenden

> Length concerns the relative duration of a number of successive syllables or the duration of a given syllable in one environment

[1] Some phonologists add 'quality' as another criterion.

relative to the duration of the same syllable in another environment.

(1997: 2)

b) Loudness

It refers to the breath-force which the speaker uses in producing syllables to make them more prominent. Stressed syllables are supposed to be louder than unstressed ones.

c) Pitch

Perceptually speaking, the listener detects the pitch of a particular syllable by judging whether the voice is up or down, and physiologically speaking, it depends on the rate of vibrations of the vocal cords within the larynx, in favour to this Cruttenden concludes that the

> Rate of vibration of the vocal cords is reflected in the acoustic measurement of fundamental frequency. This term refers to the number of repetitions of the regular waveform being typically produced when the vocal cords vibrate for voicing. So the numbers of times that the vocal cords completely open and close in one second is directly related to the frequency of the waveform.

(1997: 3)

2) Degrees of Stress

Every word has at least one stressed syllable in its pronunciation, yet, sometimes it is not an easy task to predict where stress falls exactly once we are faced with a disyllabic or polysyllabic word (see stress in languages). Within any utterance of **stress-timed** languages there are:

- Primary stress which is the main stress or the most prominent stress in the word or utterance.
- Secondary stress is the second most prominent stress in the word or utterance.
- Tertiary stress is the third most prominent stress that is principally produced only by length and/or loudness. As a result, many phonologists dismiss it from their phonological analyses.
- Unstressed where there is completely lack of prominence.

However, in most of **syllable-timed** languages, it is not necessary to discriminate between the previously mentioned stresses since there are no weak forms of words between words that carry stress, and each syllable takes approximately an equal amount of time except those that carry stress. As a result, in analyzing this type of languages, we must take into consideration the words that carry natural stress[2] and those that carry **Emphatic** stress[3] only.

3) The Representation of Stress

One of the methods used in representing stress is **Binary Branching Trees**, which are composed of Strong Parts (**S**) and Weak Parts (**W**): Stressed syllables are represented by (**s**) the unstressed ones by (**w**)

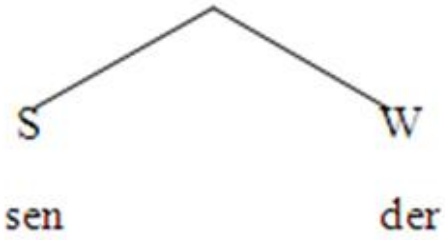


Figure 01: Binary Branching Tree of the Word 'sender'

(adapted from Katamba 1989: 225)

Prince (1983, in Katamba 1989: 228) advocates the use **Metical Grid** to represent stress by the use of an array of asterisks, wherein

[2] Which the majority of native speakers of a certain language agree on its position.
[3] Stress put on a particular syllable for pragmatic purposes.

additional asterisks is assigned to the stronger syllable (see figure 02). In criticizing these two methods, Katamba implies that trees and grids "*can convey the same information, grids are preferable because they do so in a perspicuous manner*" (1989: 229)

Figure 02: Metrical Grid of the Word 'sensitivity'

(adapted from Katamba 1989: 228)

Another representation of stress is found in the phonetic or phonemic transcription of IPA, where it is represented by placing a **small vertical line** high up, just before the stressed syllable, as in /fɑ:ðə/⟶ /'fɑ:ðə/ and a small vertical line under the line before secondary stressed syllables.

It should be noted that stress of words in spontaneous and natural speech may change position according to the neighbouring words.

4) Stress in Languages

Many languages possess a word-stress that is nearly always in a regular position in almost all words and some have a free word-stress: Czech and Finnish typically have the stress on the first syllable; Spanish and Welsh on the penultimate syllable; and Turkish the final syllable.

All in all, stress can be an indispensable part of the phonological system of a particular language, i.e., if it is misused, the message will change completely or will not be ambiguous or incomprehensible but just creates a strange accent.

5) English Stress

a) English Simple words Stress

English stress cannot be decided simply in relation to the syllables of words, like in Polish where the penultimate syllable is usually stressed or Czech where the first syllable is stressed. In this matter, Roach affirms that

> Many writers have said that English word stress is so difficult to predict that it is best to treat stress placement as a property of the individual word, to be learned when the word itself is learned.
>
> (1991: 88)

Nevertheless, there are some rules that concern verbs, nouns and adjectives which are worth mentioning:

- **Two Syllables or Disyllabic Words**

For verbs and adjectives[4], stress will fall on the first syllable, if the final syllable contains a short vowel or [əʊ] and ends with one or no consonant, for example: follow /'fɒləʊ/, open /'əʊpən/, lovely /'lʌvli/, hollow /'hɒləʊ/. Stress will fall on the second syllable; if this latter contains a long vowel or diphthong or if it ends with more than one consonant, for instance: attract /ə'tɹækt/, arrive /ə'ɹaiv/, correct /kə'ɹekt/, alive /ə'laiv/. Yet, every rule possesses exceptions for example: permit /pə'mit/

For nouns, stress falls on the first syllable; if the second syllable contains a short vowel, otherwise, stress usually falls one the last syllable, for example: money /'mʌni/, balloon /bə'lu:n/, product /'pɹɒdʌkt/, design /di'zain/.

- **Three Syllables or Trisyllabic Words**

For verbs, stress fall on the penultimate syllable; if the last syllable contains a short vowel and ends with one or no final consonant, for instance: encounter /ɪŋ'kaʊntə/ and it falls on the last syllable; if it contains a long vowel or diphthong or ends with two or more consonants, for example: entertain /entə'teɪn/.

For nouns and adjectives, stress falls on the penultimate syllable; if it contains a long vowel or diphthong or ends with two or more consonants and the last syllable contains a short vowel or [əʊ], for example: potato /pə'teɪtəʊ/, disaster /dɪ'zɑ:stə/. Moreover, it falls on the first syllable; if the final syllable contains a short vowel and the second syllable contains a short vowel and ends with less than two consonants, for instance: quantity /'kwɒntɪtɪ/, custody /'kʌstədɪ/. Stress still falls on the first syllable even when the last syllable contains a diphthong or ends with two or more consonants but we can say that the last syllable will carry a secondary stress, for example: intellect /'ɪntəlekt/, stalactite /'stæləktaɪt/, anthropoid /'ænθɹəpɔɪd/, derelict /'deɹəlɪkt/.

[4] Adverbs and Prepositions seem to behave like verbs and adjectives.

b) Complex Word Stress

Complex words are of two types: words that are composed of basic stem word and an affix (or affixes), and compound words which consist of two or more independent words.

- **Compound Words**

This kind of words can be analyzed into two or more independent words, yet this area of English morphology is filled with incertitude, for instance: 'desk lamp' which is a compound word might be considered by foreigners to be two words. Nevertheless, compound words can be written as one word such as: 'armchair', with a hyphen like 'fruit-cake' or separated by a space like 'battery charger'.

Concerning stress placement in this type of words, it can be put on the first or second word depending on the composition and type of the compound word. The most familiar type is the one composed of two nouns; here the first word must be stressed such as 'typewriter /'taɪpɹaɪtə/. Besides, compound words composed of an adjective and an ed-morpheme at the end of the second word, stress falls on the second word, for example: bad-'tempered. Similarly, stress falls on the second word with compounds that have a number as their first element, for instance: second-'class.

Moreover, compounds with an adverb as a first element tend to be stressed on the second element such as North-'East, as well as those

composed of an adverb as a first element and which the composed word behaves as the verb: ill-'treat.

(See stress in Martin Hewings' book (2007) 'Advanced English Pronunciation in Use' and the practical part of the lesson)

- **Phrasal Verbs**

They are verbs followed with an adverb or particle and/or a preposition. Normally in formal speech, they are replaced by their synonyms derived from Latin, such as talk up (promote), talk about (discuss). Normally, stress in this kind of words, is put on the verb if it is followed by a preposition like in: **'look at, a'pprove of**; and on the verb and its second element if it is an adverbial particle, for example: **'figure 'out, 'take 'over**; and only the verb and the adverbial particle if the phrasal verb is composed of a verb, an adverbial particle and a preposition such as **'run a'way with.**

- **Affixed words**

They are words that tend to be composed of prefixes and/or suffixes, but which may, alter the original stress of the word, by carrying it themselves or making it shift or without affecting it at all.

- **Prefixes**

The stress pattern of the word can change according to the prefixes bound to it and which may be one from these types which:

Carry primary stress like:	after, agro, ambi, amphi, astro, cosmo, demo, euro, gigo, greco, kilo, mega, rhino, zoophyte.
Carry secondary stress as:	afro, intra, out, over, pheno, quasi, self, semi.
Carry no stress such as:	be, co, de, miso, non, osteo, photo, post, pseudo, turko, well.
May carry primary, secondary or no stress as:	ant, bio, em, ex, mis, up.
May carry primary or no stress like:	ab, al, im.
May carry primary or secondary such as:	acro, aero, an, ana, anglo, anti, auto, bi, biblio, cardio, cata, chrono, circum, chorea, colpo, con, contra, cryo, cyclo, cyto, deca, deci, demi, di, dia, duo, eco, electro, en, endo, epi, equi, ethno, exo, extra, fibro, fluoro, gastro, geo, gyro, hepta, hexa, hetero, holo, homeo, homo, hydro, hyper, hypno, hypo, idio, inter, intro, iso, mal, meso, meta, micro, mono, morpho, multi, necro, neo, neuro, octa, octo, omni, onco, ortho, oxy, palaeo, para, patho, penta, peri, philo, physio, poly, psycho, pyro, retro, seismo, socio, stereo, sub, super, supra, techno, tele, theo, thermo, trans, ultra, under, uni, vice, xeno, zoo, phono.
May carry secondary or no stress; for instance:	arch, dis, in, pre, pro, re, un.
Have many exceptions:	miso, osteo, photo, post, pseudo, turko, well, phosphor, tri.

- **Suffixes**

The stress pattern of the word can change according to the suffixes bound to it and which may be one from these types which:

Carry primary stress as:	ability, aceous, ageous, agogic, arium , ation, ese, graphic, haired, hearted, ician, isation, ition, itious, itis, ization, legged, nomic, otic, ology, pathic, philia, philiac, phobic, plegia, plegic, scopic, scopy.

Carry secondary stress such as:	doer, genic.
Carry no stress like:	ac, agogue, agogy, ar, ard, ed, ene, er, est, ful, fully, gamous, ing, log, ly, ness, n't, oid, path, phile, phil, scope, some, ster, th, wave.
May carry no stress or make it shift; for instance:	able, ably, al, ally, ance, arily, ary, ence, ency, ent, ish, ure.
May carry primary or be unstressed; for example:	age, dermal, fiable.
Make stress shift as:	ative, eous, grapher, graphy, ial, ible, ic, ical, ically, ide, itive, ity, ive, logist, logy, lysis, nomy, phobe, phobia, tion, tious.
May carry secondary or no stress like:	ee, ée/ee, shire.
Have many exceptions and depend on the stem as:	ate, ator, ette, genious, geny, ify, ise, ism, ist, itory, ize, ory, osis, ine.
Make Stress shift to them such as:	atory, ean.

- **Word-Class Pairs**

There are some words in English that can belong to many grammatical categories (verb, noun, adjective, etc) but when they are used as verbs, their final syllable is stressed, whereas when they are used as nouns or adjectives, the first syllable is stressed, for example: Abstract /'æbstɹækt/ 'adj.' and /əb'stɹækt/ 'verb'; Permit /'pɜːmɪt/ 'noun' and /pə'mɪt/ 'verb'.

c) Variable Stress

It should be noted that stress in words tend to change position in connected speech**,** for instance, finally stressed compound words become initially stressed when followed by word that is stressed on the first syllable such as: Heavy-'handed that becomes 'heavy-,handed 'sentence.

Another property concerning the stress of English is that its position is not common to all speakers, for instance, the word 'controversy' can be pronounced /'kɒntɹəvɜːsi/ or /kən'tɹɒvəsi/ depending on the accent or preference of the speaker.

II. Aspects of Connected Speech

1) Assimilation

Languages often possess several allophones of a particular phoneme depending on the position or environment they are surrounded with, such phenomenon is called **Assimilation**, which is defined according to Katamba as *"the modification of a sound in order to make it more similar to some other sound in its neighborhood"* (1989: 80). The reason behind its use is to facilitate speaking especially in rapid speech by making it smoother, more effortless and economical, yet some people consider it a sign of sloppiness.

a) Direction of Assimilation

In assimilation, a sound can become more like either the sound that precedes it in this case the process is called **Progressive Assimilation** or the sound that follows it and in this case it is a **Regressive Assimilation**. It should be noted that there is a **Bidirectional** assimilation which involves both regressive and progressive assimilations.

b) Assimilation Processes

- **Assimilation of Voicing**

This process occurs frequently in many languages especially where a voiceless consonant occurs between two (voiced) vowels. In many languages, in that position, voiceless consonants according to Katamba

> acquire a certain amount of voicing [they become voiced between vowels]. This happened historically as Spanish

> developed from Latin. One of the changes that occurred was the voicing of voiceless stops between vowels
>
> (1989:88)

The opposite can happen, that is to say, a voiced sound can become voiceless when it occurs between voiceless consonants such as /i/ in **Japanese** in the word [ki̥ta] (came).

- **Place of Articulation Assimilation**

It is the process by which a sound changes its place of articulation due to its surroundings, such as in **Malay**, where the prefix [pəŋ] is added to the stem in order to create nouns just like the suffix 'er' in English, but the last nasal consonant of this prefix alters to another nasal consonant that possesses the same place of articulation of the sound following it such as in: baca (read)/pəmbaca (reader), dənar (swim)/pəndənar (swimmer), cakap (speak)/pəɲcakap (speaker), gosok (polish)/pəŋgosok (polisher)

- **Manner of Articulation Assimilation**

This occurs when a particular sound changes its manner of articulation when followed by a certain sound that possesses a different manner of articulation; for instance, in **Cairo Arabic** the definite articulation /il-/ (the) is realized differently (/il, id, in/) depending on the sounds following it as in these examples: kursi (chair)/ilkursi (the chair), dars (lesson)/iddars (the lesson), wageb (assignment)/ilwageb (the assignment), nimra (grade)/innimra (the grade).

2) Juncture

It is the phenomenon where the final consonant of a word is linked to the vowel of another word in order to make the transition from one word to another quick.

3) Linking

It is the phenomenon where the end of a word is linked to the beginning of another word through the insertion of a sound that does not exist in either of them.

4) Epenthesis

It can be said as the opposite of elision, i.e., it is a phenomenon whereby a sound is inserted within a string of sounds in order to facilitate pronunciation.

5) Elision

It is process where a sound is omitted from a string of sounds in order to facilitate pronunciation and make speech sound quicker.

6) English Aspects of Connected Speech

So far, we have dealt with sounds inside words, yet, now we will try to look at the different phenomena that occur whenever two or more words are used together.

a) English Assimilation

In English language, both kinds of assimilation (Anticipatory and Regressive) occur, even though regressive one is very abundant.

- **English Anticipatory or Regressive Assimilation**

○ English Regressive Assimilation of Place of Articulation

The most assimilated sounds in English are /t, d, n, s, z/ which tend to transform into the most consistent and compatible sound that resembles the next sound such as:

- /t/ changes into /p/ before bilabial sounds /p, b, m/ like in: 'that pain', 'that be', 'it makes', and it changes into /k/ before velar sounds /k, g/ as in: 'that came', 'it gives'; and into /t̪/ before dental sounds /θ, ð/; for instance: 'must throw'. In addition, /t/ sound can be assimilated into a glottal stop /ʔ/ in unstressed syllables, before [l], [n] for some speakers and in final positions.
- /d/ changes into /b/ before bilabial sounds /p, b, m/ as in: 'good piece', 'Good-bye', 'good man'; and into /g/ before velar sounds /k, g/ like in: 'good cook', 'good graces'; and into /d̪/ before /θ, ð/; for example, 'heard that'.
- /n/ changes into /m/ before bilabial sounds /p, b, m/ as in: 'ten pounds', 'can be', 'can mean' and into /ŋ/ before velar sounds /k, g/ like in: 'one can', 'can give' and into /n̪/ before velar sounds /f, v/ as in: 'can form', 'invent' and into /n̪/ before dental sounds /θ, ð/ like in 'in three'.

Sometimes two consonants may be assimilated together during the same time and within the same context, for instance: Shan't prevent /ʃɑ:nt pɹɪ'vent/ [ʃɑ:mp pɹɪ'vent], Shan't come /ʃɑ:nt 'kʌm/ [ʃɑ:ŋk 'kʰʌm], found before /faʊnd bɪ'fɔ:/ [faʊmb bɪ'fɔ:]

- /s/ changes into /ʃ/ before /ʃ, ʒ, j/ such as: 'this young lady', 'his promise should'.
- /z/ changes into /ʒ/ before /ʃ, ʒ, j/ like in: 'has she', 'those young ladies'.

As we have seen above, alveolar sounds of English tend to be assimilated with a higher frequency between words, as a result sometimes the meaning of utterances depend totally on the context like in /ræŋkwɪklɪ/ can be understood as 'ran quickly' or 'rang quickly'. In this matter, Gimson says that

> As always phonemic oppositions having been neutralized, the sense of an utterance may be determined by the context e.g.: […] /'raɪp pɛəz/ (right or ripe pears or pairs), /'laɪk kri:m/ (like or light cream), /'hɒp ˌ mənjʊə/ (hot or hop manure), /'wɒtʃɔ: ˌweɪt/ (what's or watch your weight).
>
> (1974:295)

○ English Regressive Assimilation of Voicing

Furthermore, assimilation of voicing can occur across words in English in which the phonation process changes such as:

- /v/ which changes into /f/ before voiceless sounds like in: 'five thousand', 'have to' and into /m/[5] before /m/ such as in: give me
- /z/ changes into /s/ before voiceless sounds; for example: Has too.
- /ð/ changes into /θ/ before voiceless sounds as in: with Charlotte
- /θ/ changes into /ð/ before voiced sounds like in: at length Darcy.

• English Coalescence or Progressive Assimilation

[5] Sometimes, the sound is completely elided.

In this kind of assimilation, the conditioning sound precedes and affects the following sound which will be assimilated.

- **English Progressive Assimilation of Voicing**

The most perfect example for this kind of assimilation is the plural marks or third singular person mark of the present simple which can be pronounced /s/ or /z/[6] depending on the preceding sound: /z/ after voiced consonants or vowels like in: bags /bægz/, and /s/ after voiceless consonants as in: rocks /ks/, the same for "ed" mark of the past simple and past participle for regular verbs which can be pronounced /t/ or /d/[7] depending on the preceding sound: /t/ after voiceless consonants except /t/: wished /wɪʃt/ and /d/ after voiced consonants except /d/ and vowels: moved /mu:vd/

- **English Progressive Assimilation of Place and Manner of Articulation**

Another case is when /t/ or /d/ precede /j/; this latter changes into /ʃ/ or /ʒ/ respectively as in: What you ask /'wɒtju˛ɑ:sk/ ['wɒtʃu˛ɑ:sk], Would you.. /'wudju/ ['wudʒu]

- **English Progressive Assimilation of Manner**

/ð/ is also assimilated[8] into

- /n̪/ after /n/ as in: in the /in ðə/ [iṉ n̪ə]
- /t̪/ after /t/ like in: get them /get ðem/ [geṯ t̪em]
- /d̪/ after /d/ for instance: called them /kʰɔ:ɬd ðem/ [kʰɔ:ɬḏ d̪em]

b) English Elision

Sounds may be elided (disappear or deleted) in rapid colloquial speech or in word boundaries that contain many successive sounds. Elision can occur on consonants and vowels in English, for instance:

- The most elided vowel is /ə/ especially after /p, t, k/ in unstressed syllables such as: polite [pʰlaɪt] or when /ə/ is followed by a continuant[9] and preceded by a word ending with a consonant, the result is that the following consonant becomes geminated and the starting phase of it is syllabic, for example: not afraid /nɒtf'fɹeɪd/, or again, when /ə/ is preceded by a diphthong, it changes into a long vowel, for instance: go away /ˌgɜ:'weɪ/. In addition, /ə/ can be elided when it is followed by a word that starts with /ə/, such as in: after a while /'aftʊəˌwaɪl/, and even wherever it is found in unstressed syllables like in: garden.

Concerning the consonants, many of them tend to be lost between or within words in rapid speech:

[6] As well as /ɪz/ after sibilant fricatives and affricates but it is not relevant in this case.

[7] /ɪd/also but it is irrelevant here.

[8] Before this happen, a regressive assimilation of place of articulation happens to the alveolar sounds /t, d, n/ making them change into dental sounds [t̪, d̪, n̪]

[9] Sounds produced by not completely blocking the flow of air from the larynx until the lips.

- /h/ is lost especially in words with strong and weak forms, for instance: Ask her /æsk ə/, help him /help ɪm/.
- /ð/ is also lost in 'them'as in: like them /laɪk em/.
- /v/ in the preposition 'of' is omitted before words starting with a consonant such as: heart of mortal /hɑ:t ə mɔ:ʈ/.
- /t/ and /d/ can be elided especially when they are preceded and followed by consonants; for instance: /st/ last time /lɑ:s taɪm/, /ft/ left by /lef baɪ/, /nd/ kindness /'kaɪnes/, /md/ seemed neat /si:m ni:t/, /ʃt/ finished the letter /'fɪnɪʃ ðə letə/, /ld/ cold manner /kəʊl 'mænə/, /zd/ caused their /kɔ:z ðeə/, /ðd/ bequeathed me /bɪ'kwi:ð mi:/, /vd/ unmoved by /ʌn'mu:v baɪ/

Roach states that in certain phonetic environment a phoneme may be "*realized as zero, or have zero realization or be deleted*" (1991: 127). Gerald points out that "*The reason is an economy of effort, and in some instances the difficulty of putting certain consonant sounds together while maintaining a regular speech rhythm and speed*" (2000: 110)

Some elided sounds are considered as vulgarism or sloppiness, for example: I want to speak /aɪ wɒnə spi:k/, let me mend /lemi mend/, give me no hope /gɪmɪ nəʊ həʊp/.

c) English Juncture

When words are linked together due to juncture, the boundaries that separate them seem to disappear, yet these boundaries can easily be distinguished thanks to some contextual facts such as: /əneɪm/ a name (relatively long [n]), an aim (relatively short [n]); /ðætstʌf/ that stuff (unaspirated [t], strong [s]), that's tough (aspirated [tʰ], weak [s]); /maɪtʊeɪn/ my train (devoiced [ɹ] and reduced [aɪ]), might rain (voiced [ɹ] and long [aɪ])

d) English Linking

Linking in English occurs whenever a word ends with a /i:/ or with a diphthong that ends with /ɪ/; a /j/ sound is normally added in order to ease the transition to the second word if this latter starts with a vowel like in: I am [aɪjæm], be able [bi:jeɪbʈ]. Besides, when a word ends in /u:/ or with a diphthong finishing with /ʊ/; a /w/ sound is often inserted in order to facilitate the transition to the next word which starts with a vowel, such as: Go on [gəʊwɒn], you are [ju:wɑ:].

Furthermore, RP accent is non-rhotic which implies that whenever the letter (r) is written at the end of words or before consonants, it is not pronounced by RP speakers. However, when the final /ɹ/ is followed by a word starting with a vowel and preceded by a vowel, RP speakers often use the sound /ɹ/ to link between the two words, for instance: in 'My brother left us yesterday', /ɹ/ is not pronounced whereas in 'My brother admires her' /ɹ/ is pronounced.

e) English Intrusion

When two vowels (other than vowels discussed in linking /j/ and /w/) meet each other in two words and there is no written letter (r), RP speakers will introduce /ɹ/[10] sound to facilitate the transition between the

[10] Called "intrusive /ɹ/".

words, for example: Lydia exclaimed. [liːdɪəɹekskleɪmd]; I never saw a more [sɔːɹə…]. However, Gimson points out in that

> with some speakers, however, fear of using the intrusive /r/ […] may inhibit such liaison, a vowel glide or glottal stop being used; e.g.: *the door opened* [ðə dɔːəʊpənd] or [ðə dɔːʔəʊpənd].
>
> (1974: 299)

f) English Epenthesis

Epenthesis occurs a lot in English regular plural mark and past tense endings where /ə/ or /ɪ/ is inserted between sibilant sounds as /s, z/ and alveolar plosives as /d/ as in the following examples: places /pleɪsəz/, amazes /əmeɪzəz/, wanted /wɒntəd/.

Sometimes /t/ is inserted in words ending in [ns] in order to ease the transition from /n/ into /s/ as in: convince [kʰən'vints], pretence [pɹɪ'tʰents] and even /p/ between /m/ and /f/ as in: comfort [kʰʌmpfət].

III. Rhythm

Rhythm is a phenomenon that involves the interaction of time and the number and phonological structure of stressed or unstressed syllables. Laver conceptualizes rhythm as the *"interaction of syllabic timing with stress and syllable weight"* (1994:156). There are two main[11] kinds of rhythm or speed of pronouncing syllables: **stress-timed** and **syllable-timed**. Abercombie was the leading proponent of such classification and distinguished between the two kinds by saying that:

> As far as is known, every language in the world is spoken with one kind of rhythm or with the other. In the one kind, known as *syllable-timed* rhythm, the periodic recurrence of movement is supplied by the syllable producing process: […] the syllables recur at equal intervals of time – they are called *isochronous*. French, Telegu, Yoruba illustrate this mode […]: they are syllable – timed languages. In the other kind, known as a stress-timed rhythm, the periodic recurrence of movement is supplied by the stress-producing process: […] the stressed syllables are isochronous. English, Russian, Arabic illustrate this other mode: they are stress-timed languages.
>
> (1967: 97, in Laver 1994: 523)

In stress-timed languages such as Arabic and Russian[12], there is a tendency for stressed syllables to occur at regular intervals (see figure 03). The time consumed in pronouncing or saying an utterance depends on the number of stressed syllables and not on the number of all syllables surely in situations that do not need more speeding or slowing (a neutral situation), yet in syllable-timed languages such as Spanish and Italian[13], the amount of time used in saying a sentence depends on the total number of syllables, whether stressed or not (see figure 04).

[11] There is another type discussed below which is Mora-timed but it is of less importance since it is dismissed from rhythmic analysis in many books.

[12] Roach (1991: 121)

[13] Hirst and Di Cristo (1998: 24) add other Romance languages.

Figure 03: The Rhythm of Stress-timed Languages

(adapted from Avery and Ehrlich 1992: 73)

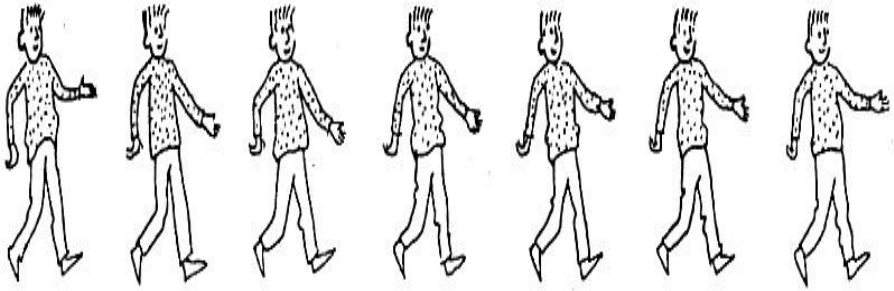


Figure 04: The Rhythm of Syllable-timed Languages

(adapted from Avery and Ehrlich 1992: 73)

In some languages, there is another kind of rhythm called **mora-timed rhythm** which is based on the types of syllable weights found in an utterance rather than stress, yet many books neglect it since it applies only on Japanese[14] language which several books classify as a syllable-timed language. Fox illustrates all types of rhythm and concludes by saying that

> A basic typology of languages on this basis is put forward by Pike (1945: 35), who categorizes languages into *stress-timed* (for example, English) and *syllable-timed* (for example, French), according to whether it is stresses or syllables that occur at equal intervals of time. Abercrombie (1967: 96-8) endorses this categorization, claiming that 'as far as is known, every language in the world is spoken with one kind of rhythm or with the other' (p. 97). Examples of 'stress-timed' languages given by Abercrombie include English, Russian and Arabic; examples of 'syllable-timed' languages include French, Telegu, and Yoruba. However, another category, *mora-timed* languages, has also been recognized, though in practice the only language which has been consistently assigned to this category is Japanese.
>
> (Fox 2000: 87)

However, the distinction between these two types of rhythm seems to disappear due to differences of speaker's accent, style, rate, state and tone of voice as well as the context and circumstances involved during the production of speech; for instance, a child tends to speak slowly than an adult and hence the rhythm changes.

1) Phonetic basis for Differences of Rhythms

According to many phonologists including John Laver, the nature of stress depends on many properties. J. Laver affirms that

> *Perceived* rhythm is a property of speech emerging from the coincidence of segmental sonority, syllabic weight and lexical stress in the lexicon of a language, and of the pragmatic use of the lexicon in the utterances of that language.
>
> (1994: 527)

Hypothetically speaking, Laver (1994: 527) believes that if on one hand a language possesses the following properties:

[14] According to Fox (2000: 87)

- Only one kind of a syllable structure is used.
- Only a very small set of consonants with approximately the same degree of sonority.
- Only a set of vowels that share the same phonological length and sonority.
- The frequency used composition of words is disyllabic words or (two syllables).
- Lexical stress (stress that can differentiate between words that contain the same sounds in the same order) is not exploited.

its phonological system will certainly be described as having syllable-timed rhythm since fairly the same kind of syllables will be found in many utterances, the length difference between syllables is very small because they contain short and similar vowels, etc., and if on the other hand, a language has the following characteristics:

- Many types of syllables are used.
- Different consonants with different sonority.
- Various vowels with different length, sonority and composition (diphthongs, triphthongs)
- Words with varying number of syllables
- Words with different stress' positions.
- Unstressed syllables tend to change the quality of their vowels.

it will be a language with a stress-timed rhythm since different stress' positions, vowel lengths and polysyllabic and monosyllabic words found in the same utterance, will inevitably create a heterogeneous timing.

Akin to what Laver proposed, Dauer (1983: 55, in Laver 1994: 532) conducted a contrastive analysis between English and Spanish rhythms and concluded that the rhythmic differences were due to linguistic properties of both languages rather than to pragmatic use of language. She says that

> The rhythmic differences we feel to exist between languages such as English and Spanish are more a result of phonological, phonetic, lexical and syntactic facts about the language than any attempt on the part of the speaker to equalize interstress or intersyllable intervals […] the differences summed up by the terms 'stress-timed' and 'syllable-timed' refer to what goes on within rhythmic groups, the characteristics of successive syllables and their interrelationship which are ultimately a product of the entire linguistic system**.**
>
> (1983: 55, 60, in Laver 1994: 532)

A further unit of rhythm is sometimes used, particularly for English but for many stress-timed languages as well, which is the **foot**. This latter refers to the sequences of syllables from one main stress until, but excluding the next main stress, thus, we can say that feet differ in their composition depending on the number and type of syllables involved and the rules governing the placement of stress.

2) Weak Forms

Weak forms are words that tend to be monosyllabic and frequently used (especially: articles, auxiliaries, modals, conjunctions, prepositions, pronouns, etc) in English utterances. In the majority of cases, these words do not carry stress which will make them seem weaker than the rest of stressed words and whenever they become unstressed, they manifest transformation of their vowels: the resulted word contains normally [ə] schwa or [ɪ] and [ʊ] for instance: are [ɑ:] becomes [ə] in 'What are you doing?' is pronounced [wɒtəjʊduːiŋ] instead of [wɒtɑːjʊːduːiŋ]

There are some rules thanks to which strong forms are usually used instead of the weak ones; these rules are:

1) When these words are at the end of an utterance or before a pause, they are always used in their strong forms except for some pronouns which can occur in their weak forms such as in these two sentences: I'm fond of

chips /aim 'fɒnd əv 'ʧips/ and Chips are what I'm fond of /'ʧips ə 'wɒt aim 'fɒnd ɒv/

2) When we use these words in order to contrast them or in opposition, we use the strong form, as in: The letter's from him not to him /ðə 'letəz 'fɹɒm im 'nɒt 'tu: im/

3) When they are stressed for emphasis or for expressing a particular intention or feeling (boredom, madness, happiness, etc.), as in: I *must*[15] have employment /aɪ 'mʌst 'hæv ɪm'plɔɪmənt/

4) When they are being cited or quoted, for example: You shouldn't put 'and' at the end of a sentence. /ju 'ʃudn̩t 'pʊt 'ænd ət ði 'end əv 'sentəns/

The reason behind the use of both strong and weak forms is that English speakers find it odd and strange to use all the time the strong forms. Moreover, anyone who wishes to understand what English speakers say; need to master both forms. Bullard believes that "*The use of weak forms is an integral part of our language and failure to use them gives a foreigner away when otherwise his pronunciation is perfect*" (in Adamczewski and Keen 1973: 205), and Jones states that "*The proper use of weak forms is essential for a correct pronunciation of English, and is one of the most difficult features of English pronunciation for foreigners to acquire*" (in Adamczewski and Keen 1973: 205). Moreover, Kingsdom says that

> Since they are more frequently unstressed than stressed (e.g. the form-words) the weak form is their NORMAL pronunciation, but unfortunately in the artificial speech which is to be heard in many classrooms the weak forms occur far too seldom […] There is a hard core of fifty words which have ESSENTIAL weak forms, that is to say weak forms which the foreign student must use, if his/her English is to be natural.
>
> (1950, in Adamczewski and Keen 1973: 205)

Another reason behind the use of weak forms is the natural property of English rhythm which demands the use of weak forms in order to maintain a fast transition from one stressed syllable to the next.

1. Am

Strong form

[æm]

- Of course I am!
- He isn't ready but I am.
- Am I late?

Weak form

[əm]

- What am I to do now?
- So am I.
- Neither am I

[m]

- I'm leaving today.
- I'm reading the paper.
- I think I'm right.

2. Is

Strong form: [iz]

[15] Italic form is used here to show emphasis.

- Is there a hotel near the station?
- I'm sure there is.
- I suppose he is.

Weak form

[z]

- He's talking too fast.
- There's nothing to be done.
- She's coming tomorrow.

[s] (after voiceless consonants)

- It's a pity
- The book's quite new.
- What's the time?

3. Are

Strong form

[ɑː], [ɑːɹ] (before vowels)

- Are those all your bags, sir?
- Are you coming or not?
- Are you ready, John?

Weak form

[əɹ]

- The boys are all at school.
- His parents are Irish.
- Suggestions are always welcome.

[ə]

- What are you doing here?
- These are French papers.
- Her parents are coming today.

4. Was

Strong form

[wɒz]

- Was there any snow in your region?
- We were there before she was.
- It 'was a surprise to see you last night!

Weak form

[wəz]

- I was sure of it.
- She said she was busy.
- He was told to open his bag.

5. Were

Strong form

[wɜː], [wɜːɹ] (before vowels)

- Were they glad to see you?
- Did you know where they were?
- They were curious people!

Weak form

[wəɹ]

- All three of them were injured.
- We were abroad last summer.
- They were out when we arrived.

[wə]

- Who were you speaking to?
- I wish I were rich.
- We were just going out for a walk.

6. Have

Strong form

[hæv]

- Our neighbours have a new car.
- She's done more than they have.
- Have you finished yet?

[hæf] (assimilation)

- You'll have to hurry up.
- They'll have to do it tomorrow.
- Do you really have to go now?

Weak form

[həv]

- Have you ever been to Brighton?
- Have you always lived in London?
- Have you seen Mary recently?

[əv], [əf] (assimilation)

- What have you done?
- Where have you been?
- You should have stayed in bed!

[v]

- I've seen it already.
- We've been away for two weeks.
- They've only just arrived.

7. Has

Strong form

[hæz]

- I've worked faster than she has.
- Has she really bought another car?
- So she's got married to her boss, has she?

[hæs] (assimilation)

- Father has to get up at six.
- It has to be done today.
- She has to see the dentist next week.

Weak form

[həs]

- Has he ever been to Postmouth?
- Has Marry seen her sister recently?

- Has it finally been decided yet?

[ez]

- The postman has bought you a parcel.
- John has come in late today.
- Did you say that Charles has been on the phone?

[z]

- He has been waiting for you.
- He's been working hard all day.
- She's gone.

[s] (after voiceless consonants)

- It's been raining for three days.
- It has been a cold winter.
- The work's not been finished yet.

8. Had

Strong form

[hæd]

- Had I known, I would never have done it.
- He's been over to London, hasn't he?
- Hasn't my typewriter been repaired yet?

[hæt] (assimilation)

- John had to leave before lunch.
- It had to be finished by Saturday.
- They had to wait in the rain.

Weak form

[həd]

- Had you heard of it before?
- Had they already complained about it?
- Had his father warned him not to say anything?

[əd]

- Where had you left your watch?
- The boy had come as usual.
- Richard had never been there before.

[d]

- You'd better take your raincoat.
- He had found the dog on the road.
- She'd caught the first train to town.

9. Do

Strong form

[du:]

- Yes, I do.
- I do like it.
- He doesn't drive as fast as you do.

[du]

- Do all of you like tea?
- So do I?
- Neither do we?

[də]

- When do Mary's friends usually call?
- Where do they want to go?
- What do they think of the new arrangements?

[d] (before you [elision process])

- Do you want another cigarette?
- How do you do?
- D'you know the time?

[dəʊnt]

- Don't waste your time!
- I don't like this book.
- You may like it, but they don't.

10. Does

Strong form

[dʌz]

- I don't think he does.
- You drive faster than he does.
- Does that seem a good solution?

Weak form

[dəz]

- Does he live in London?
- How does he know?
- So does Fred.

11. Will

Strong form

[wɪł]

- Boys will be boys.
- Will they come by train or by bus?
- They said they might come today, but I doubt whether they will.

Weak form

[ł] (contracted form)

- She'll be very glad.
- We will have to hurry up.
- That'll do.

[wəʊnt] (contracted form)

- You won't do it again, will you?
- She wants him to do it, but I'm sure he won't
- He says they won't arrive before Monday.

12. Would

Strong form

[wʊd]

- Would you mind giving me a light?
- I'd do better than he would.
- Well, I would do it – if they asked me.

Weak form

[wəd]

- Would you like to read the paper?
- It would have been a serious matter.
- Would Mary like a coffee?

[d] (contracted form)

- I'd like to learn Spanish.
- I'm sure that he would like to do so.
- They'd have done it if they could.

[əd]

- It would be nice.
- That would be interesting.
- Yours would be convenient.

13. Shall

Strong form

[ʃæɬ]

- Shall I have to change trains?
- He doesn't think I'll be able to do it, but I shall in the end.
- Shall we go and have lunch together?

Weak form

[ʃəɬ]

- When shall I see you again?
- What shall we do if it's nice tomorrow?
- I hope we shall get there on time.

[ʃɬ]

- So shall I.
- I shall do my best.
- D'you think we shall manage it?

[ʃɑ:nt] (contracted form]

- I shan't be ready before six.
- We shall meet again soon, shan't we?
- I promise that you shan't have cause to complain again.

14. Should

Strong form

[ʃʊd]

- Please tell me what I should do.
- Should I tell you the truth?
- Should you ever want me, don't hesitate to telephone.

Weak form

[ʃəd]

- What should I do?
- I should be careful, if I were you.
- They should try again.

15. Can

Strong from

[kʰæn]

- Do it if you can!
- Can I show him in?
- You can do it if you only try.

Weak form

[kʰən], [kn̩]

- You can leave when you like.
- What can I do for you?
- So can we.

[kŋ]

- We can get it.
- You can go now.
- I can come this afternoon.

[kʰɑ:nt]

- I can't believe it.
- We can't afford it.
- Make a little less noise, can't you?

16. Could

Strong form

[kʰʊd]

- Could you tell me the time, please?
- Well, you could catch the train if you ran.
- I didn't do it because I didn't think I could.

Weak form

[kʰəd]

- I think he could do it if he tried.
- She could have phoned me.
- You could let me have it next time we meet.

17. Must

Strong form

[mʌst]

- Must we really leave today?
- I must have it at once.
- They don't want to come tomorrow, but they must.

Weak form

[məst] (before vowels)

- You must ask a policeman.
- She must have forgotten it.
- They must wait a little longer.

[məs] (before consonants)

- I must be going now.

- You must do it quicker than that.
- The browns must just be arriving at the station.

18. There

There is, there's

[ðəz]

- There is a fly in my beer.
- There's a piece of glass on the floor.
- Look there's a crowd over there.

There are

[ðəɹə]

- There are ten cigars in this box
- There was nothing to be done.
- He said that there was a letter for Mary.

There was

[ðəwəz]

- There was a big nail in the tyre.
- There was nothing to be done.
- He said that there was a letter for Mary.

There were

[ðəwə]

- There were no casualties.
- There were too many people on the beach.
- There has been a new pub opened down the road.

There has been, there's been

[ðəɹəzbin], [ðəzbin]

- There has been some snow today.
- There's been an accident at the crossroads.
- There has been a new pub opened down the road.

There have been, there've been

[ðəɹəvbin]

- There have been some power-cuts recently.
- There have been a lot of cherries this year.
- There have been fewer clients than usual.

19. A

Strong form

[ei]

- I didn't say "the man"; I said "a man".

Weak form

[ə]

- A dozen eggs.
- There was a hole in his sock.
- A university student.

20. An

Strong form

[æn]

- I didn't say "the egg"; I said "an egg".

Weak form

[ən]

- An opinion
- There was an accident here yesterday.
- He says he's never seen an elephant.

21. And

Strong form

[ænd]

- I didn't say "you or I"; I said "you and I".

Weak form

[ənd] (before vowels)

- You and I can do it.
- Europeans and Africans.
- Her brother and also her sister.

[ən] or [ṇ]

- Fish and chips.
- Bed and breakfast.
- Eggs and bacon.

22. As

Strong form

[æz] as a conjunction "autonomous" and adverb "in final position"

- As for your son, he'll be all right in a day or two.
- As you like – it's your choice.
- As I was telling you, it looks as good as new.

Weak form

[əz] a comparative

- As far as I know.
- He ran as fast as he could.
- Now it's repaired, it looks as good as new.

23. At

Strong form

[æt]

- What are you looking at?
- The painting you are looking at now is by Picasso.
- The results aimed at by the Government have been achieved.

Weak form

[ət]

- She's at home.
- Not at all.
- He'll be there at half past six.

24. But

Strong form

[bʌt]

- The Opposition were convinced that the Government were defeated. But they were wrong.

Weak form

[bət]

- He tried to do it, but he couldn't.
- But I thought she was English.
- The letter wasn't from John but Robert.

25. For

Strong form

[fɔː]

- What are you waiting for?
- What did you do it for?
- You've sold the car? Whatever for?

Used also between two atonic pronouns

- Choose one for me.
- Open it for me, please.
- I won't do it again for you.

Weak form

[fə]

- I'm looking for my watch.
- That book is for Mary.
- We haven't been to France for years.

[fəɹ] (before vowels)

- Look at this one, for example.
- The weather's too hot for us to enjoy it.
- This book would do for either of the boys.

26. From

Strong form

[fɹɒm]

- Who's the letter from?
- Who did you borrow that book from?
- Where have they come from?

Between two atonic pronouns

- Hide it from him.
- He took it from her.
- She borrowed them from us.

Weak form

[fɹəm]

- From time to time.
- The chair was far from comfortable.
- He'll be busy from six to eight.

27. He

Strong form

[hi:]

- Did you say "he" or "we"?
- He doesn't like it, but I do.
- He and I are going to do the shopping.

Weak form

[hi]

- He says there's time for a cup of tea.
- Will he come tomorrow?
- When is he going to Canada?

[i]

- I thought he was here.
- Did you say he's in London?
- You'd think he'd do better than that.

28. Her

Strong form

[hɜ:]

- Did you say "him" or "her"?
- I gave the sweets to her, not to my brother.
- It was her car that was damaged, not ours.

Weak form

[hə]

- You couldn't imagine her doing such a thing.
- They asked her to spend Whitsun with them.
- He spoke to her kindly.

[ə]

- I was only speaking to her last week.
- We warned her to be careful about signing the contract.
- I didn't see her at the meeting yesterday.

29. Him

Strong form

[him]

- Did you say "him" or "her?
- Did you see him?
- I gave the book to him last week.

Weak form

[im]

- I told him to come at ten.
- Give it to him at once!
- You asked him for the timetable, didn't you?

30. His

Strong form

[hiz]

- Did you say "his watch" or "her watch"?
- His brother is on holiday in Spain.
- Have you spoken to his aunt about it?

Weak form

[iz]

- He had his hat on his head.
- Here's John's coat, and this is his umbrella.
- Where's his suitcase?

31. Many

Strong form

[meni]

- Many people go to Portugal for the holidays.
- How many brothers have you got?
- There aren't really many vacancies at the moment.

Weak form

[məni]

- How many brothers have you got?
- How many days are there to Christmas?
- There aren't many people here tonight.

32. Me

Strong form

[mi:]

- He couldn't see me, but I could see him.
- She didn't like me to do the cooking; she preferred to do it herself.
- Did you say "me" or "she"?

Weak form

[mi]

- If he'd finished it, he'd have told me.
- She looked at me, but didn't seem to recognize me.
- Let me have your address.

33. Not

Strong form

[nɒt]

- This is not what I wanted.
- She's not coming after all.
- You must not say such things!

Weak form

[nt] (contracted form)

- You needn't do it if you don't want to.
- This isn't what I wanted.
- I tried to open the door but I couldn't.

34. Of

Strong form

[ɒv]

- What are you thinking of?
- The man I spoke to you of has left the country.
- Which film is he the director of?

Weak form

[əv]

- The box is on top of the wardrobe.
- It's very kind of you.
- First of all.

[əf] (assimilation)

- Of course.
- A plate of fish.
- A tin of peas.

35. She

Strong form

[ʃiː]

- She found a job for the summer, but her sister didn't.
- Did you say "she" or "he"?
- She'd be the one to ask.

Weak form

[ʃi]

- She doesn't play tennis very often.
- She likes living in London, doesn't she?
- What time is she coming?

36. Some

Strong form

[sʌm]

- Some people don't like mustard.
- There are some of his stories that I haven't read.
- I don't mind giving you some, but not all.

Weak form

[səm]

- Would you like some more cake?
- You owe me some money, don't you?
- I think there are some biscuits in the cupboard.

37. Than

Strong form

[ðæn]

- Look up the word “than” in your dictionary.

Weak form

[ðən], [ð]

- He can do it better than you.
- My brother is taller than I am.
- I’d rather walk than go by bus.

38. That

Strong form

[ðæt]

- Could you omit the word “that” in the last sentence.

Weak form

[ðət]

- This is the house that Jack built.
- He thought that it was time to go.
- She said that they were coming tomorrow.

39. The

Strong form

[ði:]

- He’s just the man for the job.
- That’s of course the thing he shouldn’t have said.
- This is the book to read on the subject.

Weak form

[ði] (before vowels)

- She dropped her basket and broke the eggs.
- The oranges are too sharp
- Put the ice-cream in the refrigerator.

[ðə]

- What’s the time?
- Put the flowers in the vase.
- I think John’s in the garden.

40. Them

Strong form

[ðem]

- We didn’t see them, but they saw us.
- Who did you give the message to – to them?
- Did you say “they” or “them”?

Weak form

[ðəm]

- I told them you weren’t coming.
- We saw them this morning.
- He gave it to them when they met yesterday.

41. To

Strong form

[tʰuː]

- Did you say “to” or “from”?

Weak from

[tʰʊ] (before vowels or in final position)

- Who did you give it to?
- What will you have to eat?
- He spoke to us kindly.

[tʰə]

- Give it to them.
- Is this the way to the post office?
- From Paris to London.

42. Us

Strong form

[ʌs]

- Did you say “us” or “them”?
- Don’t give it to them; give it to us.
- If you don’t want it, give it to us!

Weak form

[əs]

- He met us in Brighton last summer.
- They sent us some postcards from Scotland.
- After some discussion, they gave the packet to us.

IV) Intonation

There is no satisfactory definition of intonation but all linguists agree that **pitch** (or tone) is a very important key component of any language’s intonation, yet not all kinds and aspects of any speaker’s pitch carry a linguistic information, since for instance, if a speaker tries to talk while riding fast a horse, the speaker’s pitch will make a lot of sudden rises and falls as a result of the irregular movements, this is something which is outside speaker’s control and therefore cannot be linguistically significant. Moreover, some speakers possess a high pitch in comparison to other speakers’ pitches and this difference cannot be linguistically significant because their habitual pitch level is determined by their physical structure and habit. However, many studies were dedicated to discovering the forms and functions of intonation rather than focusing on differences between intonations of speakers of a certain language. Ideally, it must be stressed that an accurate study of intonation must be the result of analyzing what people actually say rather than inventing examples of what they might say.

1) Functions of Intonation

In order to understand fully the function of intonation, we have to start uttering a flow of sentences and words without changing at all the tone; the outcome will sound strange and even sometimes ambiguous. If there is an interpretation for this, it should be that intonation plays a key role in

delivering an accurate message. Among its numerous functions, we have attitudinal, accentual, grammatical and discourse functions.

- **Attitudinal Function**

The speakers try to express their feelings or impress and leave some feeling through the use of some deliberate pauses, stressed words, tones, etc

- **Accentual Function**

The speakers through the use of this function try to express their intentions; this happens by putting stress on a certain word and making it the **Tonic Syllable**[16] for instance, the emphasis put on different words in similar sentences leads to difference in meaning; for example, if we say 'it was very mortifying' with emphasis on 'mortifying', this will mean that 'it was not encouraging', but if we say 'It was very mortifying' with emphasis on 'very', this will mean 'it was extremely mortifying not just mortifying'.

- **Grammatical Function**

Speakers want to convey a certain meaning by using special intonation pattern such as sometimes, declarative sentences can be transformed into interrogative sentences just by changing the tone; for instance, the sentence 'the price is going up' can become 'the price is going up?' through changing the pitch from falling to rising.

- **Discourse Function**

The speaker uses intonation to make the listener pay more attention to the parts of the message that are primordial and regulate conversational behaviour by showing to the listener when to start talking, when to finish talking, what a particular response is required, etc.

2) Tone-Unit Composition

[16] The most audibly noticed syllable of the most important words in an utterance.

The tone unit is uneasy to define, but it can be composed of one syllable to more than one the syllables of the tone-unit can be divided into a **pre-head, head, tonic syllable** and **tail.**

- **Tonic-Syllable or Nucleus**

We cannot talk of tone-unit without the tone-syllable, since the presence of this latter is the main component of the tone-unit, i.e., the tone-unit must at least consist of a tonic-syllable.

The tone-syllable is the most prominent syllable in the tone-unit and the one that carriers the tone e.g. why, Charlie

- **Head**

It is that part of a certain tone-unit which extends from the first stressed syllable up but without including the tonic syllable. If there is no stressed syllable before the tonic syllable, it means that there is no **HEAD**.

Those → the tonic-syllable

give me those → give me → the head

those → tonic syllable

- **Pre-Head**

It is all unstressed syllables found in a certain tone-unit preceding the first syllable. The pre-head can be found before the head such as in:

In a little less than an hour

Where: in a → pre-head

little less than an ⟶ head

hour ⟶ tonic syllable

or it can be found right before the tonic syllable such as:

in an hour

where: in an ⟶ pre-head

hour ⟶ tonic syllable

- **Tail**

It is composed of all syllables, whether stressed or not, which follow the tonic syllable e.g.

look at it

where: look ⟶ tonic syllable

at it ⟶ tail

Hence, we can conclude that a tone-unit can be composed of 3 optional components and one obligatory component.

Pre-head + head + tonic syllable + tail

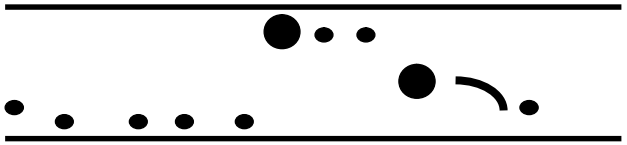
(optional) (optional) (obligatory) (optional)

3) Conventional Marks in the Contour Representation

It should be noted that stressed syllables of the head are marked with the regular stress mark (ˈ), yet stressed syllables of the tail are marked with a dot ( ). Besides, we put (||) to draw a pause and (|) to set tonic unit's boundaries.

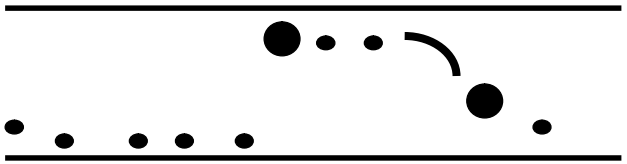
4) Tune Shape and Position

The shape of the tune or tone in English depends on the intention of the speaker and partly by the number of important word in utterance, for instance, if someone A asks his friend B: *How was John?,* B might answer saying : *he was in an appallingly bad temper*. This sentence can be analyzed using a falling tone (since it is an affirmative utterance and is not followed by any utterance) as follows



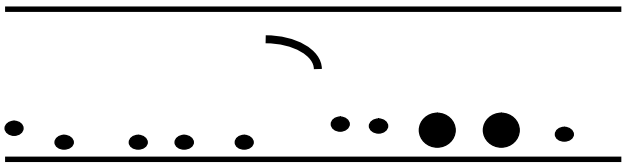
He was in an appallingly bad temper

Here the tonic syllable is the first syllable of the word ***tem****per* since it carries the tone and is the most important word because B wanted to show that what was appallingly bad is his/her temper and not health or performance, etc. Yet, if A asked the question *Was John in a good temper?* B would answer the same previous answer but the tonic syllable would be "*bad*" rather than the first syllable of "***tem****per*" since B wants to focus on the quality of temper and not on temper because it is already mentioned in the question and gives little information. Hence, the diagram will be



He was in an appallingly bad temper

Yet, if A asked: Was John in a bad temper? And B agrees but wants to indicate a degree of "bad", s/he would put the tone on the adverb "appallingly" since it carries additional meaning



He was in an appallingly bad temper

As a result, one must classify all English possible tones and uses before analyzing whole strings of utterances.

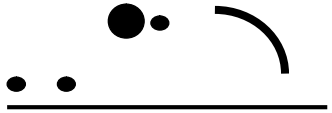
- **Falling (Glide Down) Tune**

It consists of a fall in the voice from a fairly high pitch to a very low one, e.g.:

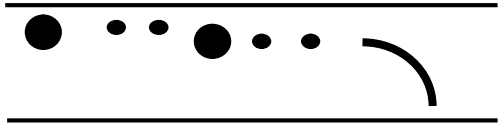
No

In this kind of tune, the prehead must be said on a low pitch, the head must be said on a very high pitch and the body keeps the same level of pitch except if it contains stressed syllables; in this case there is a gradual fall for instance:

I was 'very \ glad

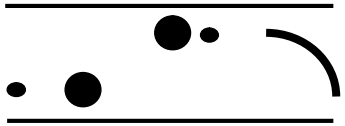


'What was the 'matter with \ that



Also, if any stressed syllable is linked to an unimportant unstressed word, it is also said on a low pitch, e.g.:

He 'seems 'very \ nice

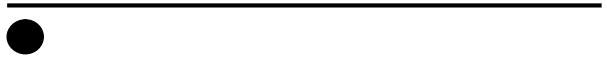


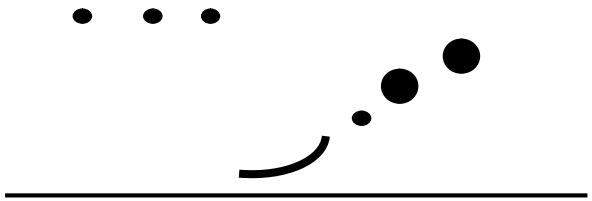
If stressed or unstressed words (Tail) follow the tonic syllable, they follow its pitch.

- **Rising (Glide-up and Take off) Tune**

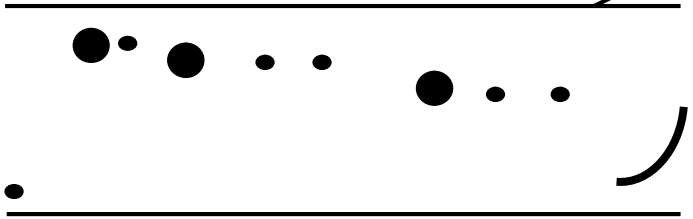
In **Glide-up** is like the glide-down concerning the pitch of prehead, head and body except in the kind of tone itself, where it rises instead of falling e.g.:

'Have you been at / work to'day 'John?



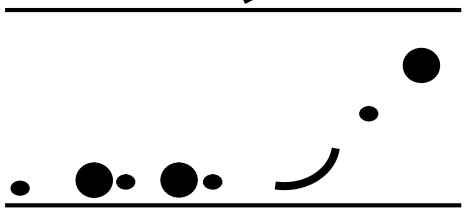


But 'is it 'true that you're 'changing your job?



Concerning the **take off**[17], it is like the glide-up, yet, the prehead, head and body are all said on a low pitch (the tail remains following the pitch of the tonic syllable), e.g.:

You 'didn't 'really hurt your'self



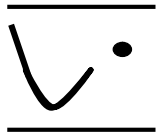
[17] It is called so according to John O'Connor (1980:116), and it is the second rising tone in English

John O'Connor states that "*we call it the take off because, like an aeroplane taking off, it starts by running along at a low level and finally rises into air*" (1980:117)

- **Falling-Rising (Dive) Tune**

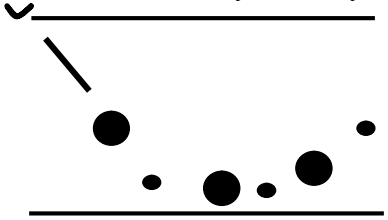
Is a complex tone where there is a fall at the beginning and a rise at the end, e.g.:

Twenty

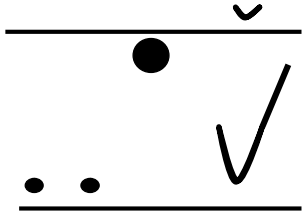


If the tonic syllable is followed by a tail, the rise falls on the former and the rise on the latter

That 'wasn't 'very 'friendly



She was 'quite kind



5) General Uses of English Tones

Few generalizations can be done about attitudinal function of the following abundant tones which most books[18] agree on their basic meaning, such as:

- **Falling tone** (**Glide-down**) is used to express:

- Finality, Definite and complete sentences

I was quite good

Roach states that

> if someone is asked a question and replies yes or no it will be understood that the question is now answered and that there is nothing to be said. The fall could be said to give an impression of "finality"
>
> (1991: 138)

- Business like

Why did you change your mind?

- Short question

(John's birthday) Is he?

- Strong commands

Take your feet off the chair

- When "not" is found either in the sentence or tag question to force the person to agree

It's cold today, isn't it?

- Strong exclamations

Good heavens!

- **Falling-rising tone** (**Dive**): Roach states that "*A fall-rise* [...] *indicates both something "given" or "conceded" and at the same time some "reservation" or "hesitation".*" (1991: 139). It is used to express:

- Uncertainty, doubt[19]

It is possible

- Incomplete sentences leading to other words

|| She took the car | (and drove to London)

- Statements that show some reservations

He's generous (but I don't trust him)

- Statements as corrections of what has been said

(He's forty-five) ||Forty six||

- Statement as a warning

||I shan't tell you again||

[18] According to Roach (1991: 167)

[19] O'Connor, J. D. (1980: 120)

- Pleading commands, more a request than order

|| Try||

Can I have the carriage?

- **Rising-falling** used to show surprise, being impressed:

What a fine thing for our girls!'

Roach adds that it "*is used to convey rather strong feeling of approval, disapproval or surprise*" (1991: 139)

- **Level tone** is used to say routine, uninteresting or boring (it is used rarely); as in applying for an insurance policy, we use _yes, _no for instance: 'Is your eyesight defective? _No'. Roach asserts that

> this tone is certainly used in English, but in a rather restricted context: it almost always conveys (on single-syllable utterances) a feeling of saying something routine, uninteresting or boring
>
> (1991: 140)

- The **Low Rising** (**Glide-up**) tone is used to express:

- Listing

Red, brown, yellow or blue (fall on blue for finality)

- More information to come such as: I phoned them right away…(and they agreed to come)

- Soothing or encouraging sentences

It won't hurt.

I shan't be long

- Sentences as a question

You like it?

- To show interest

How's your daughter?

- Greetings, farewell

Good morning

- For something not very interesting or unexpected

Good luck

- For all other yes/no questions

Did John post that letter?

- The **High Rising** tone or **take off** used to express:
  - General questions such as:

Is it over?

- A grumble

|| It didn't hurt you || (so why make all that fuss?)

- When you repeat someone else's question or when you want someone to repeat some information

(I arrived a ten o'clock) when?

- Tag question after commands

Come over here, will you?

- When neither the sentence nor the tag question contain "not"

You liked it, did you?

- Exclamative questions

Really?

As far as both Rising tones (Glide up and Take off) are concerned, Hirst points out that

> Many linguists however have made use of one single rising pattern to describe both continuative and interrogative pattern. When a distinction between low rise and high rise, the low rise is generally held to correspond to a statement which is either unfinished or carries implications of some sort, whereas the high rise is said to correspond to a question
>
> (1998: 63)

V) English Varieties

a. American English

- Many words that are pronounced with /ɑ:/ in RP are pronounced with /æ/ in General American (GA) such as: advance, mask, after, last, laugh, path, glass, etc.
- There are many differences in word stress between GA & RP especially words that end with suffixes –ary, -ory, -et where the stress is placed on them in GA. It should be pointed out that these days, many British younger people start using stress pattern of GA because of the influence of American media[20], for example:

RP	GA
Address	address
Cafe	cafe
Premier	premier
Princess	princess
Valet	valet
Garage	garage

- Several differences involve the use of /ɹ/, where it is pronounced in all positions in GA.
- Other differences are found in the pronunciation of many words such as:

	RP	GA
Anti	/'anti:/	/'antai, 'anti:/
Erase	/i'ɹeiz/	/i'ɹeis/

- The /t/ in intervocalic context becomes a lenis rapid tap resembling [d] when it is not stressed.

b. Scottish English

[20] In Crystal David (1995: 307)

- Absence of lip-rounding in words such as stone, go which sound as ‘stane, gae’.
- The close back vowel [ʊ:] is fronted and heard as French close front rounded vowel [ʏ] such as moon, use which sometimes are written by Scotts ‘muine’, ‘yuise’.
- Final /l/ is replaced by [ʊ]-type vowel like full becomes like ‘fou’ and ball as ‘baw’.
- The retention of /ʊ:/ in words as house that becomes as ‘hoose’, down as ‘doon’
- /i/ and /ʊ/ have no length distinction and they become short or long depending on the phonetic environment and grammatical boundaries.
- A voiceless velar fricative is heard in words having ch, for instance loch, nicht (night).
- A voiceless labio-velar fricative /ʍ/ is widespread and used to distinguish between whales and Wales and other speakers replace it with /ʃ/ so that white sounds like fite.
- The glottal stop is widespread too especially in the speech of younger people.
- Unstressed syllables tend to be pronounced with much emphasis, such as Wednesday which is pronounced with equally three strong syllables[21].

c. Irish English

It is called as well Hiberno-English[22] and very distinct from RP in its vowel length contrast, lip-rounding and tongue position.

- Words with /i:/ tend to be pronounced with /e:/ as tea.
- RP /ɔɪ/ is pronounced as /əi/ for join.
- RP words that are pronounced with long back /ɑ:/, are uttered with long front /a:/ before sounds articulated in the front area of the mouth as path, calm and not in talk, saw where /ɑ:/ is kept.
- /ɹ/ is kept everywhere.
- /t/ and /d/ are usually dental and /θ, ð/ appear as plosives: thanks /t̪aŋks/, this /d̪is/.
- /l/ is always clear.
- /s/ may become /ʃ/ in some consonant clusters (before: t, n, l) as stop /ʃtɒp/.
- Stress is more flexible than in RP: verbal suffixes attract stress e.g.: advertise, prosecute. In polysyllabic nouns, syllables followed by many consonants are stressed: character, algebra. Primary stress appears later, e.g.: safeguard, diagnose with much variation.

d. Canadian English

Canadian accents display features of GA and RP accents[23]:

Like General American accent

[21] In Crystal David (1995: 329)

[22] In Crystal David (1995: 336-337)

[23] In Crystal David (1995: 341)

- /ɹ/ is kept in all positions: far.
- /t/ becomes flapped in untressed intervocalic positions.
- Use of /əl/ in fertile, hostile.
- Adoption of GA pronunciation: schedule with /sk/, tomato with /ei/.

Like RP accent

- The letter Z is pronounced /zed/.
- /anti/ for anti.
- The first syllable of lieutenant is pronounced /lef/ not /luː/.
- Bath, the verb is pronounced like the noun and not as GA verb 'bathe'.
- /tʃ/ and /nj/ are kept whenever they are pronounced like that instead of /t/ or /n/, e.g.: tune, news.
- The word 'leisure' is pronounced with /iː/ not /e/.

e. Australian English

The major differences between RP and Australian English

- /iː/ and /uː/ are heard as /əi/ and less often as /əʊ/ which is considered as the main marker of Australian accent.
- /ei/ is sometimes pronounced further as front and back in their daily greetings g'day /gədai/
- /əʊ/ is much more open or fronted /oʊ/ or /ɛʊ/.
- /ai/ is given a back open quality /ɒi/.
- /au/ is given a front quality and raised sometimes to [æ].
- /ə/ replaces /i/ in ustressed syllables.
- Vowels before nasal consonants are more nasalized than vowels in the same context in RP.

f. New Zealand English

Many features of Australian accents are found in New Zealand accent:

- /i/ changes into /ə/: fish.
- /e/ is much closer in articulation as /i/.
- /ə/ is much closer articulation to /ɛ/ so that bat is heard as bet.
- /iə/ and /ɛə/ have been emerged.
- /ɑː/ is maintained where /æ/ is heard in Australian accent.
- /ʍ/ and /w/ tend to contrast words with 'wh' and 'w', yet it is falling out of use in young generations[24].
- /l/ is much darker and often replaced by a vowel.
- High rising intonation is noticeable in Australian and New Zealand accent.

g. South African

It involves a mixture of Australian and African accents.

- Short front vowels are all raised and close ones are centralized.
- /e/ moves to /i/.

[24] In Crystal David (1995 : 354)

- /i/ is centralized between /ə/ and /u/.
- /ɑː/ is more rounded and raised /ɔː/.
- Many diphthongs are monophthongized so that /eə/ becomes /eː/ and /au/ becomes /ɑː/.

h. Caribbean English

It is used in the islands of Caribbean Sea and several adjacent, central and South American mainlands and called Caribbean English[25].

- /a/ and /ɒ/ emerged and /a/ replaces both and /ɔː/ may substitute both of them so that cat, cot and caught are similar.
- /ɪə/ and /eə/ emerged.
- /ei/ became /ie/ in Jamaica and /eː/ in the rest of the Caribbean Islands.
- /əʊ/ became /uo/ in Jamaica and /oː/ in the rest of the Caribbean Islands.
- /θ, ð/ are replaced by /t/ and /d/ respectively.
- /ɹ/ is heard in Barbados, Virgin Islands, Jamaica and Guyana[26].
- Consonant clusters are simplified and consonants are often elided and assimilated such as best as /bes/, yesterday as /jeside/.
- Dark [ɬ] becomes in the majority of the region inot clear [l].

[25] In Crystal David (1995: 344)
[26] In Crystal David (1995: 345)