Chapter II: Supra-segmental Phonology

1.1.Learning Goals and Objectives

- Understand the structure of the English syllable
- Distinguish strong and weak syllables
- Understand stress placement and its importance in speech
- Distinguish stress placement in simple and complex words
- Develop an awareness in phrasal stress, sentence stress and variable stress

Lecture 7: Syllable Structure and Consonant Cluster

Syllable Definition :

All words can be cut up into units called syllables. The syllable is defined as a unit of spoken language larger than a phoneme. It is a unit of pronunciation uttered without interruption, forming whole or part of a word, and usually having one vowel (or vowel-like) sound, or diphthong sound optionally surrounded by one or more consonants. In fact, phoneticians and phonologists, in their attempts to define the term, have relied on different criteria, so different definitions are provided.

- **Phonetic Definition:** From a phonetic point of view, the syllable is defined as a unit that is made up of a centre characterised by little or no obstruction to airflow and which sounds comparatively loud; before and after that centre, there will be greater obstruction to airflow. E.g. In the monosyllabic word seen /si:n /, the vowel /i:/ is the centre surrounded by the consonants /s / and /n /.
- **Phonological Definition:** from a phonological point of view, a syllable is defined as a complex unit consisting of nuclear and marginal elements. Nuclear elements are the vowels or syllabic segments (While the nucleus is usually a vowel, it is also possible

for some consonants like the /l / and /n / to be syllabic in words such as *table, little, cotton* and *button);* marginal elements are the consonants or non-syllabic segments. In the monosyllabic word *speak* /spi:k/, the vowel /i:/ is the nuclear element, while initial consonant cluster /sp/ and the final consonant /k/ are marginal elements.

Counting Syllables: to find the number of syllables in a word, follow the following steps:

1. Count the vowels in the word.
2. Subtract any silent vowels (like the silent *e* at the end of the word) such as: mate /meɪt/.
3. Diphthongs count as one vowel sound like: crime /krɑɪm/, slow /sləʊ/, boy /bɒɪ/.
4. The number of vowel sounds must be the same as the number of syllables such as: Believe /bɪ `li:v/ , perhaps /pə `hæps/ , record (v) /rɪ `kɒ:d/ , money /`mʌnɪ/
5. When there is a word that has an "-le" in final position, we divide before the consonant before the "-le". For example: hum/ble, dou/ble, whis/tle.

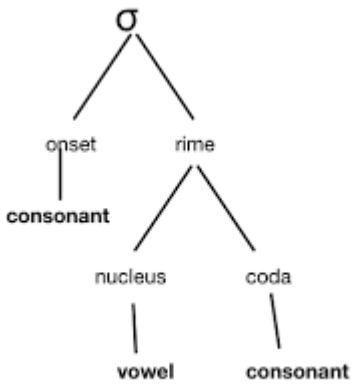
The English word can be in one syllable or divided into syllables. So, there are:

- **Monosyllabic words** (having one syllable) as in **did** /dɪd/, **was** /wɒz/ /wəz/
- **Disyllabic words** (having two syllables) as in **doctor** /dɒktə/, **Friday** /fr*a*ɪdeɪ/
- **Trisyllabic words** (having three syllables) as in **difficult** /dɪfɪkəlt/
- **Polysyllabic words** (having four syllables) as in **civilization** /sɪvəl*a*ɪzeɪʃn/

In English, a syllable can consist of a vowel preceded by one consonant (CV) or by two consonants (CCV) or by three consonants (CCCV). The vowel of the syllable may also be followed by one consonant (VC) or by two consonants (VCC) or by three consonants (CVCCC) as in *text*/*tekst*/or by four consonants (CVCCCC) as in *texts*/*teksts*

The Structure of the English Syllable:

Syllables have internal structure: they can be divided into parts. The parts are **onset (O)** and **rhyme (R)**; within the **rhyme** we find the **nucleus (N)** also known as the (**peak**) and **coda (C)**. Not all syllables have all parts; the smallest possible syllable contains a nucleus only. A syllable may or may not have an onset and/or a coda. A tree diagram is used to represent Syllable structure.



- **The Onset:** the onset is the beginning sounds of the syllable; the ones preceding the nucleus. These are always consonants (we can have one, two or three consonants as an onset) in English. All consonants in English, except **[ŋ]** can appear as onsets. **[ʒ]**, however, is rare. In the following words, the **onset** is in bold characters (**r**ead, **fl**op, **str**ap).

- If a word contains more than one syllable, each syllable will have the usual syllable parts (**w**in.**d**ow, **t**o.**m**a.**t**o, **f**un.**d**a.**m**en.**t**al).
- If the first syllable of a word begins with vowel (any vowel may occur, though "u" is rare) we say that this initial syllable has a **zero onset**.

- **Rhyme (or rime):** the rhyme is the rest of the syllable, it can be divided up (Rhyme=nucleus+coda).

- **The Nucleus:** as the term suggests, is the core or essential part of a syllable. A nucleus must be present in order for a syllable to be present. In English and most other languages, the nucleus is a vowel (or diphthong) in most cases.

- **The Coda:** is usually one, or more consonants. The coda may be absent in some syllables.
- In English, the syllable structure analysis of the words '**read**' and '**flop**', for instance are as follows (the IPA symbols are used to show the sounds in the word/syllable):

Read = one syllable	**Flop= one syllable**
Onset= [r]	Onset= [fl]
Rhyme= [i:d]	Rhyme= [ɒp]
Nucleus= [i:]	Nucleus= [ɒ]
Coda= [d]	Coda= [p]

In its minimal form, a syllable is composed of only the nucleus (e.g. *eye, are, a, or, err, owe, ear* and *air*. So, the Nucleus or the Peak is an the only **obligatory** element or compulsory part of the syllable in all languages. In English, vowels can initiate (*ice, ear, earth*) or end syllables (*high, low, sir*). In addition to the vowel, a syllable may include an onset and/or a coda. So, the Onset and the Coda are **optional**.

Syllables can be categorised as **Closed** or **Open** syllables**.** The difference between them is concerned with the presence or the absence of the coda; a syllable with a coda is a closed syllable (e.g. *on, height, eight*) and a syllable without a coda is an open syllable (e.g. *sea, eyes, high*). It is worth to mention that the Onset is not taken into consideration (there are open syllables with or without onsets and there are closed syllables with or without onsets).

Weak and Strong Syllables:

In English, a distinction is made between weak and strong syllables. Weak syllables tend to be quieter and shorter than strong syllables. Moreover, a strong syllable can have as its nucleus any English vowel phoneme except / ə /, while a weak syllable can only have as its nucleus one of the following: the schwa /ə /, a close front unrounded vowel / ɪ /, a close back rounded vowel / u/, or a syllabic consonant.

Close Front and Close Back Vowels:

There are many cases in present-day British and American English where the distinction between /ɪ/ and /i:/ is very difficult. For example, it is difficult to tell whether the final vowel of *city* and *easy* should be described as /i:/ or / ɪ /. It seems to belong neither to the /ɪ/ phoneme nor to /iː/. A parallel argument can be made for the distinction between /ʊ/ and /uː/ in words such as *to* and *who.* The sound does not seem to be either of the two phonemes. The solution adopted by Roach for these neutralised sounds is to use the symbol for the long vowel but without the length mark e.g. / bɪ zi / and / tu /.

Syllabic Consonants:

In unstressed syllables where usually the realization of the underlying sequence of schwa plus consonant can be represented in one consonant called "syllabic consonant". Syllabic consonants are the consonants that make syllables without vowels. The English consonants / m, n, ŋ, r, l/ can be the nuclei of syllables if they are preceded by a consonant. Such consonants are called syllabic consonants and are transcribed with a small vertical line under the syllabic consonant sound e.g: /n̩/

- ✓ **Syllabic /n/:** is the most common syllabic consonant which is found after alveolar plosives and fricatives; in the case of /t,d/ sounds followed by /n/ such as in eaten /i:tn/, seven /se.vn/, threaten /Ɵre.tn/, heaven /hevn/.
- ✓ **Syllabic /l/:** the lateral /l/ is mostly syllabic at the end of the word, if it fell immediately after plosives and fricatives such as in cattle /kæ.tl/, bottle /bo.tl/, muddle /mʌ.dl/, tunnel /tʌ.nl/, couple /kʌ.pl/, trouble /trʌ.bl/, struggle /strʌ.gl/, panel/pæ.nl/, petal/pe.tl/, parcel /pɑ:. sl/, kernel /kɜ:. nl/
- ✓ **Syllabic /m/:** as in bottom /bɒ.tm/, rhythm /rɪ.ðm/.

Consonant Cluster:

When we have more than one consonant appearing as either the onset or coda (or both) of a syllable, we call them a **consonant cluster**.

A consonant cluster is a group or sequence of consonants that appear together in a syllable without a vowel between them. It is important to distinguish between consonant clusters and diagraphs with which they are often confused. In contrast to a consonant cluster, a diagraph is a group of two or more symbols which really stand for just one sound (usually a consonant).

In the word *chat*, the letters *c* and *h* appear contiguously but are *not* a consonant cluster, even though both are separate consonants in other contexts (cat; hat). In this instance, *ch* is a diagraph because the *ch* sequence represents a single sound in the underlying English sound system. Examples of consonant clusters are: /sp/ and /ts/ in the word ***spots*** ---- /spr/ in the word ***spray.***

The Syllable Onset/ The Syllable Coda:

As such, we may have initial and final consonant clusters. There are some **patterns** or rules of phonological system concerning syllable structures. Exactly how many consonants and which ones can occur in the onset and coda are determined by a series of **sequence constraints**, commonly known as **Phonotactics.**

Phonotactics:

A set of rules that specify the permissible sequences of consonants in the onset and coda. In other words, they are restrictions on the number and type of segments that can combine to form syllables and words. They vary greatly from one language to another. For instance, in English, consonant clusters can occur in both syllable-initial and syllable final positions (i.e., as onset or coda) and English allows up to three consonants in the onset and three consonants in the coda. If a word does begin with three consonants, the first will always be /s /, the second must be a voiceless stop / p, t, k / and the third a liquid / l, r / or a glide /w, j/.

- **Initial Consonant Clusters:**

In English, a word or a syllable may begin with up to three consonants, but no more than three. If a word does begin with three consonants, the first will always be [s], the second must be chosen from among the voiceless stops [p t k] and the third from among the sounds [l r w y]. Thus, we get words such as '**squeeze'** [skwi:z] in English. We have two kinds of initial clusters: initial two-consonant clusters and initial three-consonant clusters.

- Initial two-consonant clusters are of two sorts. One sort is composed of **'s'** followed by one of a small set of consonants. Examples of such clusters are found in words like 'sting' **[stɪŋ]**, 'sway' **[sweɪ]**, 'smoke' **[sməʊk]**. The 's' in these clusters is called **pre-initial** consonant while the other consonants that follow it are the **initial** consonants. The other sort begins with one of a set of about fifteen consonants followed by one of the set 'l, w, r, j' as in 'play' **[pleɪ]**, 'tray' **[treɪ]**, 'quick' **[kwɪk]**, 'few' **[fju:]**. The first consonant in these clusters is called the **initial** consonant and the second one the **post-initial**.
- Initial three-consonant clusters have a clear relationship with the two sorts of the two-consonant cluster described above. Examples of three-consonant initial clusters are 'split' **[splɪt]**, 'stream' **[stri:m]**, 'square' **[skweə]**. The 's' in these examples is the **pre-initial** consonant, the 'p', 't' and 'k' that follow 's' are the **initial** consonant and the 'l', 'r' and 'w' are the **post-initial.**

➢ **Final Consonant Clusters:**

In a syllable's coda, we have the possibility of up to four consonants. This maximum (four consonants) is more common for one-syllable words.

- If there is no consonant, we say that there is a **zero coda,** as in 'do', 'though'

- When there is one consonant only, this is called, this is called the final consonant. Any consonant can be final in English except ‘h’, ‘r’, ‘w’ and ‘j’ as in ‘cat’, ‘dream’, ‘seen’.
- Two-consonant final clusters are of two sorts. The first one includes **final** consonant preceded by a **pre-final** one. Pre-final consonants in English form a small set: m,n,l,ŋ,s. We can see these in ‘bump’ [bʌmp], ‘bent’ [bent], ‘bank’ [bæŋk], ‘belt’ [belt], ‘ask’ [ɑ:sk]. The other sort of two-consonant final cluster is made of a **final** consonant followed by a **post-final** one. Post-final consonants also form a small set: s,z,t,d,Ɵ. We can see these in examples like ‘bets’ [bets], ‘beds’ [bedz], ‘backed’ [bækt], ‘bagged’ [bægd], ‘eighth’ [eɪƟ]
- Final three-consonant clusters are also of two types. The first one is **pre-final** plus **final** plus **post-final**, as set out in the following table:

		Pre-final	**Final**	**Post-final**
‘helped’	**he**	**l**	**p**	**t**
‘banks’	**bæ**	**ŋ**	**k**	**s**
‘bonds’	**bɒ**	**n**	**d**	**z**
‘twelfth’	**twe**	**l**	**f**	**Ɵ**

- The second type shows that more than one post-final consonant can occur in a final cluster: **Final** plus **Post-final 1** plus **Post-final 2**. Post-final 2 is again one of ‘s,z,t,d,Ɵ’.

		Pre-final	**Final**	**Post-final 1**	**Post-final 2**
‘fifths’	**fɪ**	**--**	**f**	**Ɵ**	**s**
‘next’	**ne**	**--**	**k**	**s**	**t**
‘lapsed’	**læ**	**--**	**p**	**s**	**t**

- Four-consonant clusters can be analysed as consisting of a final consonant preceded by **a pre-final** and followed by **post-final 1** and **post-final 2**.

		Pre-final	**Final**	**Post-final 1**	**Post-final 2**
'twelfths'	**twe**	**l**	**f**	**ɵ**	**s**
'prompts'	**prɒ**	**m**	**p**	**t**	**s**

- A small number of cases seem to require different analysis, as consisting of a **final consonant** with **no pre-final** but **three post-finals**.

		Pre-final	**Final**	**Post-final 1**	**Post-final 2**	**Post-final 3**
'sixths'	**sɪ**	**--**	**k**	**s**	**ɵ**	**s**
'texts'	**te**	**--**	**k**	**s**	**t**	**s**

Division of Syllables:

Counting the number of syllables that a word contains is usually an easy task. Nonetheless, dividing a word into syllables (dividing word-medial sequences between onsets and codas) can be problematical. There are three main criteria of syllabication (or syllable division):

- ✓ Morphemic: syllable boundaries should correspond with morpheme boundaries. For example, the compound word *classmate* and the affix word *dislike* are divided /class**.**mate / and /dis**.**like/, respectively (In this section, syllable division is marked by a stop).

- ✓ Phonotactic: syllable division should accord with the rules of combination: the phonotactics of syllable onsets and syllable codas. In other words, syllables should not be divided in a way that violates what is known of English syllable structure. In the word *sequel*, both /si:**.**kwəl/ and /si:k**.**wəl / are divisions which accord the phonotactic principle.

However, these three principles, sometimes fail to give a clear answer. So, a further principle referred to as "**Maximisation of Onsets"** or **"Maximal Onsets Principle**", which is widely recognised in contemporary phonology, is followed as far as possible. This principle sets a preference for assigning as many consonants as possible to the onset rather than to the coda where possible. So, "**Maximisation of Onsets**" is a principle of syllabification whereby the onset is made as large as possible, consistent with the phonotactics of a word-initial onset. For example, for the word dictate, we can imagine three possible divisions: *di**.**ctate, dic**.**tate, dict**.**ate*. The correct choice is determined by the principle of **Maximisation of onsets**. The largest onset would be *di**.**ctate*; however, because the sequence / kt / never occurs in English as the onset of the first syllable of a word and because / t / is a possible onset for a word, the correct division is *dic**.**tate*. This division thus results in the largest possible onset.

However, when the application of the principle of **maximisation of onsets** , in the word *better* or *seven* for instance, would result in a syllable which violates the general principle that the vowel does not occur in open syllables (syllables ending with a short vowel /ɪ/, /e/, /æ/, /ʌ/, /ɒ/ or /ʊ/ constitute a violation of English phonotactics). Thus, the first (or only) intervocalic consonant is assigned to the coda and the word *better* is divided /ˈbet**.**ə/ whereas *beater* is divided /ˈbiː**.**tə /.

The division of better as /bet-ə / does not seem completely satisfactory. This problem of ambiguous medial sequences can be resolved by applying the principle of **ambisyllabicity**,

which says that in an unstressed syllable, the first consonant of the onset serves as the coda of a preceding syllable. So, the / t / in *better* and the / v / in *seven* are regarded as ambisyllabic. In other words, they straddle the syllable boundary: they belong both to the coda of the first syllable and to the coda of the second syllable.

Lecture 8: Stress Patterns: Word Stress

1- The Nature of Stress:

In English, when a word has more than one syllable, one of the syllables will be produced with more force, energy and prominence than the rest, this emphasis is called stress. Thus, Stress is the power that we put on the syllable to make it *louder*, *longer*, and *stronger*. We mark a stressed syllable in transcription by placing a small vertical line (') high up before the syllable, and the stress may fall on the first, second, third or fourth syllable.

The first syllable of words like: 'father', 'open', 'camera' is stressed, that the middle syllable is stressed in 'potato', 'apartment', 'relation', and that the final syllable is stressed in 'about', 'receive', 'perhaps'.

/'fɑːðə/ /pə'teɪtəʊ/ /ə'bɑʊt/

/'əʊpən/ /ə'pɑːtmənt/ /rɪ'siːv/

/'kæmrə/ /rɪ'leɪʃn/ /pə'hæps/

In English, therefore, the position of stress is variable, not fixed. It falls on different syllables: the ultimate (e.g. re.'ceive), the penultimate (e.g. 'con.cert), the antepenultimate (e.g. re.'place.a.ble), the ante antepenultimate and so on.

1.1. Factors of Stress Placement: At least four different factors are important:

1- Loudness: stressed syllables are louder than unstressed syllables, if one syllable is made louder than the others, it will be heard as stressed.

2- Length: stressed syllables are longer than unstressed ones and take more time to pronounce than the vowel of the unstressed syllables, which is reduced in length.

3- Vowel Quality: A *stressed syllable* has a prominent vowel, the stressed syllable mostly have strong vowels /e, æ, ɒ, ɑː, iː, ɒː, ɜː, ɑɪ, ɑʊ …) whereas the weak vowels /ə, ɪ/ are frequently unstressed in polysyllabic words.

4- Pitch of the Voice: it is the most efficient factor for recognizing the prominence of stressed syllable in which the stressed syllable is pronounced with a higher pitch than unstressed ones. For example, If all syllables are said with low pitch except for one said with high pitch, then the high-pitched syllable will be heard as stressed and the others as unstressed. To place some movement of pitch (e.g. rising or falling) on a syllable is even more effective in making it sound prominent.

Prominence, then, is produced by four main factors: (1) loudness, (2) length, (3) quality (4) pitch. Generally, these four factors work together in combination, although syllables may sometimes be made prominent by means of only one or two of them. 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.

If we compare the words transport in *means of transport* (noun) and to transport goods (verb) we can hear an important difference in pronunciation. In means of transport, the first syllable /træn/ gets the greater emphasis than the second /spɔ:t/, while in *to transport goods*, it's the second which gets the greater emphasis. This emphasis is called **stress**. Thus, we can say that in the noun TRANsport /**ˋtræn**spɔ:t/ the first syllable is stressed, while in to transPORT /træn**ˋspɔ:t**/, the second syllable is stressed.

1.2. Levels of Stress:

Some words, especially long ones (polysyllabic words), contain syllables with varying degrees of stress. It is commonly thought that levels of stress are distinguishable, though phoneticians do not agree on how many degrees of stress are linguistically relevant in a word. Famous British phoneticians (P. Roach and A.C. Gimson) usually distinguish three degrees of stress in the word:

- **Primary Stress:** is the strongest type of stress in prominence (louder, longer, and higher in pitch). E.g: water /'wɒ:tə/ beautiful /'bju:tɪfl/ house /'haʊs/.
- **Secondary Stress:** is weaker than the primary stress in prominence. Long words may have an extra stress, the second most stressed syllable in the word. The secondary stress is marked with a small lowered vertical (ˌ) line preceding the stressed syllable.

  E.g: information /ˌɪnfə'meɪʃən/ understand /ˌʌndə'stænd/
- **Unstressed Syllables**: is the absence of stress, it can be found in the weak syllables /ə/ and /ɪ/. E.g: alone /ə'ləʊn/ envy /'envɪ/

1.3. Placement of Stress within a Word:

In English, the assignment of stress to a particular syllable in a word is dictated by a set of rules. In order to decide on stress placement, it is necessary to make use of some or all of the following information:

1. Whether the word is morphologically simple, or complex. If it is complex, is it a

compound word or an affix word (containing one or more affixes).

2. The grammatical category to which the word belongs. the stress-assignment rules make a distinction between nouns and verbs since the rules for them are different from each other.
3. The number of syllables in the word.
4. The phonological structure of those syllables: stress rules depend crucially on the phonological structure of syllables. A distinction is made between heavy and light syllables. A heavy syllable is a syllable that contains either a long vowel or a diphthong, with or without a coda or a short vowel with a coda, whereas a light syllable is a syllable that contains a short vowel and no coda. As a general rule, heavy syllables attract stress.

Lecture 9: Stress in Simple Words

The choice of stress placement in the two-syllable words is either the first syllable or the second will be stressed according to the rules of stress placement on each one of them.

- **Stress on the First Syllable:** mostly in two syllable **nouns** and **adjectives** the stress falls on the first syllable. E.g. present /`prezent/ clever /`klevə/ happy /`hæpı/
- **Stress on the Second Syllable:** most of two-syllable **verbs** receive the stress on the second syllable. Present /prı`zent/ decide /dı`sɑıd/ begin /bı`gın/

1. **Two Syllabic Words:** (verbs, nouns, adjectives, adverbs, prepositions)

- ✓ If the **second syllable** contains **a long vowel** or **a diphthong** (except **/əʊ/**) or ends with **a consonant cluster**, the **second syllable** is **stressed.** Otherwise, the first syllable (except if it contains **/ə /**). is stressed.
- ✓ If the **second syllable** contains a **short vowel** or the **diphthong /əʊ/**, stress is on **the first syllable**.

Verbs	apply /ə`plaɪ/ attract /ə`trækt/ arrive /ə`raɪv/ complete /kəm`pli:t/ receive /rɪ`si:v/ withdraw /wɪð`drɔ:/ correct /kə`rekt/ assist /ə`sɪst/ open /`əʊpən/ enter /`entə/ envy /`envɪ/ borrow /`bɒrəʊ/ follow /`fɒləʊ/
Nouns	balloon /bə`lu:n/ finger /`fɪngə/ money /`mʌnɪ/ estate /ɪ`steɪt/ design /dɪzaɪn/
Adjectives	correct /kə`rekt/ alive /ə`laɪv/ lovely /`lʌvlɪ/ pretty /`prɪtɪ/
Adverbs	hardly /`ha:dlɪ/ outside /aʊt`saɪd/ above /ə`bʌv/ over /`əʊvə/
Prepositions	among /ə`mʌŋ/ beyond /bɪ`jɔ:nd/ until /ən`tɪl/ along /ə`lɒŋ/

N.B:

- ✓ The syllable which contains the schwa /ə/ is never stressed.
- ✓ Two-syllable words with /ə/ in the 1st syllable therefore the stress on the 2nd syllable.

  E.g: Ahead /ə'hed/ oppose /ə'pəʊz/ suggest /sə'dʒest/
- ✓ Two-syllable words with a schwa /ə/ in the 2nd syllable then the stress on the 1st syllable. Purpose /'pɜ:pəs/ ballad /'bæləd/

2. **Three Syllabic Words:** (verbs, nouns, adjectives)

- ✓ If **the third syllable** contains a **long vowel**, **diphthong**, or a **consonant cluster**, the **third syllable** is **stressed**. Otherwise, the penultimate syllable will be stressed.
- ✓ If the **third syllable** contains a **short vowel**, **diphthong /əʊ/** it is unstressed and the **second syllable** is **stressed**.

Verbs	entertain /entə`teɪn/ encounter /ɪn`kɑʊntə/ resurrect /rezə`rekt/ Determine /dɪ`tɜ:mɪn/ encourage /ɪn`kʌrɪdʒ/ consider /kən`sɪdə/
Nouns	synopsis /sɪ`nɒpsis/ disaster /dɪ`zɑ:stə/

N.B:

- ✓ If the **3rd syllable** contains a **short vowel** and the **2nd** contains a **short vowel** and do not end with a **consonant cluster**, both 2nd and 3rd syllables are unstressed, stress on the 1st syllable.

  E.g: Emperor /`empərə/ parody /`pærədɪ/ insolent /`ɪnsələnt/

  professor /prə'fesə/ opportune /ɒpə`tju:n/ infamous /`infəməs/

Word-class Pairs:

There are many pairs of two-syllable words with identical spelling which differ from each other in stress placement, apparently according to word class (noun, verb, adjective). The stress will be placed on the second syllable of the verb but on the first syllable for the noun or adjective.

Word	Noun/Adjective	Verb

Absent	/'æbsnt/ (adj)	/æb'sent/ (v)
Addict	/ædɪkt/ (N)	/ə'dɪkt/ (v)
Compact	/'kɒmpækt/ (N)	/kəm'pækt/ (v)
Conduct	/'kɒndʌkt/ (N)	/kən'dʌkt/ (v)
Conflict	/'kɒnflɪkt/ (N)	/kən'flɪkt/ (v)
Contrast	/'kɒntræst/ (N)	/kən'træst/ (v)
Increase	/'ɪnkri:s/ (N)	/ɪn'kri:s/(v)
Desert	/'dezət/ (N)	/dɪ'zɜ:t/ (v)
Impact	/`ɪmpækt/ (N)	/ɪm`pækt/(v)
Convict	/`kɒnvɪkt/ (N)	/kən`vɪkt/(v)
Extract	/`ekstrækt/ (N)	/ɪk`strækt/ (v)
Protest	/'prəʊtest/ (N)	/prə'test/ (v)
Record	/'rek ɔ:d/ (N)	/rɪ'k ɔ:d/ (v)
Suspect	/'sʌspekt/ (N)	/sə'spekt/ (v)
Subject	/'sʌbdʒɪkt/ (N)	/səb'dʒekt/ (v)
Insult	/'ɪnsʌlt/ (N)	/ɪn'sʌlt/ (v)
Permit	/'pɜ:mɪt/ (N)	/pə'mɪt/ (v)
Refund	/'ri:f ʌnd/ (N)	/rɪ'f ʌnd/ (v)

Lecture 10: Stress in Complex Words

The general definition of a complex word is a word composed of more than one grammatical unit or semantic one (i.e. morpheme). Hence, a word like ***careful* (care + ful)**, or ***blackbird* (black + bird)**, being composed of two grammatical units each, are complex words. ***Carefully (*care + ful + ly)** and ***carelessness (*care + less + ness)** are also complex and are composed of three grammatical units each.

Complex words are of two major types: words made of a basic **stem word** with the addition of an **affix,** and **compound words**, which are made of two (or occasionally more) independent English words **(e.g. 'ice-cream', 'armchair')**. We will look first at the words made with affixes; these will be called **affix words**. Affixes are of two sorts in English: **prefixes**, which come before the stem **(e.g. prefix 'un-' stem 'pleasant' = 'unpleasant')** and **suffixes**, which come after the stem **(e.g. stem 'good' + suffix '-ness' = 'goodness')**.

Stress assignment in complex words is guided by a fairly complex set of rules. It is worth mentioning that the rules provided below do not cover the stress patterns of all affix words.

- **Placement of Stress in Affix Words:**

The addition of affixes affects the placement of word stress in three main ways:

1. Stress falls on the affix itself (*circle* but *semicircle*: the addition of the prefix *semi-* causes the stress to shift from *circle* to *semi-* / profiteer: the addition of the suffix –eer causes the stress to shift from the first syllable in *profit* to the ultimate syllable containing the suffix -eer).
2. No effect: the affix does not make any difference to the stress pattern of the resulting word ('comfortable: the addition to '*comfort* has no effect on the placement of stress, which remains on '*comfort* / 'marketing: the addition to '*market* has no effect on the placement of stress, which remains on '*market*).

3. Stress is shifted from its original position to a different syllable in the stem. ('*magnet* but *mag'netic*: the addition of the suffix –ic to '*magnet* causes the stress to shift from the first syllable of the stem to the second syllable of the stem).

1. Stress Assignment on Prefixes:

There is no prefix that always carries primary stress. In the words containing prefixes such as: **(a- , ab, co, de, dis, im, in, re, un)** the primary stress mostly does not fall on the prefix but on one of the stem syllables. Consequently, the best statement seems to say that stress in words with prefixes is governed by the same rules as those for words without prefixes.

Prefixes	**Examples**
a-	aside /ə'saɪd/ , aback /ə'bæk/, apart /ə`pɑ:t/
ab	*abnormal* /æb'nɔ:məl/, *absolve* /əb'zɒlv/
co	*cooperative* /kəʊ'ɒpr̩ətɪv/, *cohabit* /kəʊ'hæbɪt/
de	*demotivate* /di:'məʊtɪveɪt /, *decode* / di:'kəʊd/
dis-	Dislike /dɪs 'laɪk/ disagree /dɪsə 'gri:/
Im-	Impossible /ɪm 'pɒsəbl/ immortal /ɪ 'mɒ:tl/
In-	Invaluable /ɪn 'væljuəbl/ incorrect /ɪn 'kərəkt/
re-	Reorder /rɪ 'ɒ:də/ rearrange /ri:ə 'reɪndʒ/
un-	Uncertain /ʌn 'sɜ:tn/ unfaithful /ʌn 'feɪӨfl/

- ✓ There are many exceptions in English because of the vastness of the language. Thus, stress placement in complex words is not always predictable. However, the rules do work mostly.

  E.g: impotent /'ɪmpətənt/ impulse /'ɪmpʌls/ infinite /'ɪnfɪnət/

2. Stress Placement on Suffixes:

There are so many suffixes that it will only be possible to examine a limited number of them. We will examine only those which are common and productive, i.e., are applied to a large number of stems and could be applied to more to make new English words.

- ✓ **Suffixes Carrying Primary Stress Themselves:** the suffixes which attract the primary stress to the ***final syllable***, they are also called stress-sttracting suffixes.

Suffixes	Examples
'ese'	Japan /dʒə`pæn/ -- Japanese /dʒæpə`ni:z/ Portuguese /pɒ:tjʊ`gi:z/
'eur'	Entrepreneur /ɒntrəprə`nɜ:/
'ee'	Refugee /refju`dʒi:/ Absentee /æbsən`ti:/
'eer'	Volunteer /vɒlən 'tɪə/ -- mountaineer /maʊntə`nɪə/
'aire'	Questionnaire /kwestʃə 'neə/ Millionaire /mɪljə 'neə/
'ette'	launderette /lɔ:n`dret/
'esque'	Picturesque /pɪktʃə`resk/ Arabesque /ærə`besk/
'ique'	Critique /krɪ 'ti:k/ Technique /tek`ni:k/

- ✓ **Stress-neutral suffixes:** Suffixes neither receiving stress nor affecting it, such suffixes include the inflectional suffixes (plural; possessive; third person singular present tense -s; progressive -ing; past -ed; past participle -en/-ed; comparative -er; and superlative -est), and several derivational ones:

Suffixes	Examples
'able'	comfortable /`kʌmftəbl/ considerable /kən'sɪdərəbl/
'age'	Percentage /pə 'sentɪdʒ/ marriage /'mærɪdʒ/

‘dom’	kingdom /ˈkɪŋdəm/, wisdom /ˈwɪzdəm/
‘al’	refusal /rɪˋfju:zl/
‘en’	widen /ˋwaɪden/
ship	censorship/ˈsensəʃɪp/,dictatorship/dɪkˈteɪtəʃɪp/
‘ful’	wonderful /ˋwʌndəfl/ sorrowful /ˈsɒrəʊfl/ , beautiful /ˈbju:tɪfl/
‘ing’	amazing /əˋmeɪzɪŋ/ educating /ˈedjʊkeɪtɪŋ/, interesting/ˈɪntrestɪŋ/,
‘ish’	devilish /ˋdevlɪʃ/ childish /ˋʧaɪldɪʃ/
‘like’	birdlike /ˋbɜ:dlaɪk/ native-like /ˋneɪtɪvlɑɪk/
‘less’	powerless /ˋpaʊələs/ bottomless /ˈbɒtəmləs/, defenseless /dɪˈfensləs/
‘ly’	hurriedly /ˋhʌrɪdlɪ/ apparently /əˈpærəntli/, rapidly /ˈræpɪdli/
‘ment’	punishment /ˋpʌnɪʃmənt/ development /dɪˈveləpmənt/
‘ness’	yellowness /ˋjeləʊnəs/ tenderness /ˈtendənəs/, greatness /ˈgreɪtnəs/
some	quarrelsome /ˈkwɒrḷsəm/ Troublesome /ˋtrʌblsəm/
wise	otherwise /ˈʌðəwaɪz/, clockwise /ˈklɒkwaɪz/,
‘ous’	poisonous /ˋpɔɪznəs/ enormous /ˋɪnɒ:məs/
‘y’	funny /ˋfʌnɪ/

- ✓ **Suffixes causing Penultimate Stress:** Suffixes not carrying stress but affecting it i.e., when the following suffixes are added to the stem, the primary stress shifts to the last syllable of the stem (or the penultimate syllable) the syllable preceding the suffix.

Suffixes	**Examples**
‘eous’	advantageous /ædvənˋteɪdʒəs/ simultaneous /sɪməlˋteɪniəs/
‘graphy’	photography /fəˋtɒgrəfi/ Demography /dɪˋmɒgrefɪ/

'ial'	proverbial /prə`vɜ:biəl/ Industrial /ɪn`dʌstrɪəl/
'ian'	Historian /hɪ`stɒ:rɪən/ phonetician /fəʊnɪ`tɪʃən//
'ic'	climatic /klaɪ`mætɪk/ economic /ˌi:kə'nɒmɪk/
'ion' 'ation'	Interaction /ɪntə`rækʃən/ participation /pɑ:tɪsɪ`peɪʃən/
'ive'	reflexive /rɪ`fleksɪv/ Productive /prɒ`dʌktɪv/

- ✓ **Stress on the Ante-penultimate Syllable**: (ante-penultimate: third from the end) Some words end with the suffixes below, count three syllable from the end of the word, the third is stressed.

Suffixes	**Examples**
'acy'	Democracy /dɪ 'mɒkrəsɪ/ Aristocracy /ærɪ`stɒkrəsɪ/
'ity'	tranquility /træŋ`kwɪləti/ Creativity /krɪeɪ`tɪvɪtɪ/
'ly'	accidentally /æksɪ`dentəlɪ/

3. **Compound Words:** Compound words are formed from a combination of two or more elements that constitutes on semantic unit. They normally contain a single primary accent on one syllable, another syllable carrying a secondary accent. Compound words may receive stress either on the first word or the second. There are three types of compound words in English as follows:

- Hyphenated Compounds: Good-hearted, life-saver, one-way, well-done, part-time.

- Closed compounds: Armchair, postman, teapot, crossword, goodwill.

- Open compounds: Cassette recorder, coffee machine, phone call, ice age.

a) – Noun compounds are the most frequent compounds in English:

They are of three types: **noun + noun**, **adjective + noun** and **verb +noun**.

- ✓ In **noun + noun compounds**, the first element of the compound receives

primary stress.

Typewriter /`taɪpraɪtə/ -- sunrise /`sʌnraɪz/ -- suitcase /`su:tkeɪs/ -- tea-cup /`ti:kʌp/ --

Air conditioner /ˈeə kənˌdɪʃn̩ə/ drugstore /`drʌgstɒ:/ dressing room /`dresɪŋru:m/

Exceptions: headmaster week-end mankind

- ✓ The same stress pattern applies to **noun + verb** compounds and some **adjective + noun** compounds :

` Rainfall `sunrise `blackboard `dark room

b) – <u>Stress in compound words composed of adjective and 'ed':</u>

Stress moves to the second element if the first element is an adjective and the second ends with (ed), as i:

Bad-tempered /bæd `tempəd/ Long-sighted /lɒŋ `saɪtɪd/

c) - <u>Stress in compound words composed of adjective + gerund:</u>

Compound words composed of an **adjective and a gerund** at the end receive stress on the second element.

Good-ˈlooking, easy- ˈgoing, ˌglobal ˈwarming,

d) - <u>Compounds in which the first element is a number:</u>

Stress moves to the second element if the first element is a number, as in:

four-wheels /fɒ: `wi:lz/ Second class /sekənd `klɑ:s/

e) – <u>Compounds functioning as adverbs are usually finally stressed:</u>

Stress moves to the second element if the compound word functioned as an adverb,as in:

South-East /saʊϴ `i:st/ down-ˈstream /dɑʊn `stri:m/ upside down /ʌpsɑɪd `dɑʊn/

f) - <u>Compounds which function as verbs and have an adverbial element first:</u>

Stress moves to the second element if the compound word functioned as a verb, as in:

ill-treat /ɪl `tri:t/  downgrade /dɑʊn`greɪd/

g) - <u>Phrasal verbs are stressed on the second element:</u>

Let `down  take `over turn `off

h) - Compounds which include past participle + noun are stressed on the second element:

lost ˈproperty inˌverted ˈcomma

4. Variable Stress:

The stress pattern is not always fixed and unchanging in English words; there are cases where stress shifts to another position. The two main reasons why this occurs include the fact that in connected speech, some words are influenced by the adjacent words and the fact that not all speakers agree on the placement of stress in some words.

- ✓ When the final- stressed compound words are used before a word that begins with a strongly stressed syllable, stress tends to shift to the first word of the compound. Compare:

  1.a. The performance was really first 'rate.

  1.b. She runs a 'first-rate 'business.

Other examples:

bad-'tempered but *a 'bad-tempered 'teacher*

heavy-'handed but *a 'heavy-handed 'sentence*

old-'fashioned but *'old-fashioned 'clothes*

Lecture 11: Sentence Stress

Introduction:

When we speak, we use words but most of the time phrases and sentences too. We have already dealt with some patterns of word stress, but what happens at the level of phrases and sentences? Obviously, in a sentence more than one word will be stressed. To understand sentence stress, you need to consider some aspects of speech such as categories of words (content words Vs function ones), rhythm, and phrasal stress.

Definition:

Sentence stress is the music of spoken English. Like word stress, sentence stress can help you to understand spoken English, especially when spoken fast. You remember that word stress is accent on **one syllable** within a **word**. Sentence stress is accent on **certain words** within a **sentence.**

'Tom could 'hardly 'believe his 'eyes.
They could have 'chosen a 'better 'time for their 'holiday.

The words *Tom, hardly, believe* and *eyes* (in the first sentence) and *chosen, better, time, holiday* (in the second sentence) are stressed because they are important for the meaning of the sentence. These words belong to the category of content words which contrasts with the category of function words or grammatical words.

Content Words Vs Function Words:

At the clausal level, normally, words that carry higher information content in the utterance are given **higher stress** than those carrying lower input (information). It is generally the case that one word is stressed more than any other since it possesses the highest information content for the discourse utterance, that is, it informs the hearer most. The group of words described above is largely from what is called '**content**' words as opposed to '**function**' words.

Content Stressed Words	**Function Unstressed Words**
Nouns, verbs, adjectives, adverbs, question words, possessive pronouns, demonstrative pronouns, prepositional adverbs, quantifiers, negations.	Articles, modal auxiliaries, auxiliary verbs, prepositions, conjunctions, personal pronouns, possessive adjectives, demonstrative adjectives.

N.B. When **auxiliaries** are followed by **negation**, they are rather **stressed**.

E.g: You `mustn't / `aren't (auxiliary + not) is **stressed**.

Content words are the key words of a sentence. They are the important words that carry the meaning or sense. Function words, however, are not very important words. They are small, simple words that make the sentence correct grammatically. They give the sentence its correct form or "structure". If you remove the structure words from a sentence, you will probably still understand the sentence. However, if you remove the content words from a sentence, you will **not** understand the sentence. The sentence has no sense or meaning.

Unstressed syllables in English are often also called **weak** syllables whereas **stressed** syllables are referred to as **strong** syllabIes. The alternative pronunciations of a number of English function words are called **weak** and **strong forms.**

If you stress all the words in an utterance, you may sound unpleasant or even cause misunderstanding because you are giving too much information, and English speakers usually stress all words only when they are impatient or angry.

Imagine that you receive this telegram message:

Sell car gone France

This sentence is not complete. It is not a "grammatically correct" sentence. However, you probably understand it. These four words communicate very well: ***Somebody wants you to sell their car for them because they have gone to France.***

SELL my CAR I've GONE to FRANCE

The new words do not really add any more information. However, they make the message more correct grammatically. We can add even more words to make one complete, grammatically correct sentence. But the information is basically the same:

Will you **SELL** my **CAR** because I've **GONE** to **FRANCE**

Phrasal Stress:

Foreign learners of English may need as first practical step to understand and practice sentence stress in English to deal with phrasal stress.

Definition:

Phrasal Stress is an important part of the rhythm of English. It is a term that refers to the most stressed word in each phrase in a sentence. Each sentence that has more than one phrase in it has its most stressed word in the last phrase. This is generally called sentence stress. When we give that word the most prominent stress, we are not only showing that this word is important, but also that the sentence is ending.

What are the Patterns:

When we read a sentence normally (without giving any word extra emphasis), each thought group (phrase) in a sentence has one word that is most stressed. This word is the last

content word in that phrase. The last content word in the last phrase *of the sentence* is said to be the most stressed in the sentence.

- ✓ Read slowly and deliberately the following two sentences as if you were in a presentation. Then, the stress pattern would look like:

The noisy ***car*** / has been ***parked*** / in the ***garage***
Many ***people*** / often ***read*** / ***just*** the first and last ***sections*** / of a ***Novel***

When they are said more rapidly, there will be fewer pauses and less stress on the content words: The noisy car has been parked in the ***garAGE*.**

Many people often read just the first and last sections of a ***Novel***

Lecture 12: Stress in Connected Speech

Introduction:

This lesson addresses the notion of stress in words as perceived in connected speech. Four major types of stress are identified.

- Tonic stress
- Emphatic stress
- Contrastive stress
- New information stress

1- Tonic Stress:

An **intonation unit** has only **ONE** tonic syllable; this simply means that the **tonic syllable** is an obligatory component of the intonation unit. In other words, the intonation unit has almost always one "peak of stress", which is called **'tonic stress'**, or **'nucleus'.** Because stress applies to syllables, the syllable that receives the **tonic stress** is called **'tonic syllable'**.

Tonic stress is almost always found in a **content word** and found in the final position of an utterance. It is, however, important to remember that a sentence can have **more than one intonation unit**, and therefore have **more than one tonic stress**. It is also worth noting that the **tonic stress placement** here is said to be **neutral**, **unmarked** or **default** type i.e. it does

not express **emphasis** or **contrast**. This is called **neutral tonic placement**. The neutral tonic is normally placed on **the last content word**. Consider the following, in which the tonic syllable is underlined:

- ✓ I'm `**go**ing. /`**gəʊ**ɪŋ/
- ✓ I'm going to `**Lon**don. /`**lʌŋ**dən/
- ✓ I'm going / to London / for a `holiday. /`**hɒ**lədeɪ/

Generally, the final tonic stress in a sentence receives the most stress. In the above example, 'holiday' receives the strongest stress.

A question does arise as to what happens to the previously tonic assigned syllables. They are still stressed, however, not as much as the tonic syllable, producing a **three level stress** for utterances. Then, the following is arrived at., where the tonic syllable is further capitalized:

- ✓ I'm going to London for HOliday.

In some exceptional cases, the tonic stress may fall on an earlier content word or on a function word. Here are some examples:

- ✓ He bought a new `**mountain** bike. (NO tonic on the second part of initially stressed compound)
- ✓ It was `**nice**, I think. (NO tonic on afterthoughts, appended remarks)
- ✓ We'll just `**stay** here. (NO tonic on common adverbs)
- ✓ That's what the `**book** says. (NO tonic on "obvious predicates")

Tonic on a function Word:

- ✓ No, you `**can't.** (Tonic on an auxiliary if no other stressable word)
- ✓ Where are you `**from**? (Tonic on preposition in short sentences without main verb)
- ✓ This is `**mine**. (Tonic on possessive pronoun)

In the second type of tonic placement, the speaker wishes to **emphasize some part** of the utterance, **contrast a part** of it with something or **focus on some new information**,

which may be achieved by placing the tonic stress at a different place from where it would normally appear.

2- Emphatic Stress:

Emphasis is used to show extra emotion in our speech. By giving extra stress to different words in an English sentence, we can actually *change the meaning* of the sentence. To do this, we give them emphasis with an even higher tone, a longer stressed syllable, and louder sound than a normally-stressed word.

In other words, one reason to move the tonic stress from its utterance final position is to assign an **emphasis** to a **content word**, which is usually a modal auxiliary, an intensifier, an adverb, an adjective, etc. Here are two examples to illustrate **emphatic stress**:

a- It was very `BOring. (unmarked)

b- It was `VEry boring. (emphatic)

a-You mustn't talk so `LOUDly. (unmarked)

b-You `MUSTN'T talk so loudly. (emphatic)

In simpler words, when something is to be emphasized, stress placement should be changed from the major noun to another **content** word such as an adjective (big, difficult, great, bright, etc.), intensifier (very, extremely, completely, utterly, especially, etc.). doing so is achieving emphasis in the right place or aspect of the utterance.

3- Contrastive Stress:

In **contrastive contexts**, the stress pattern is quite different from the emphatic and non-emphatic stresses in that any lexical item in an utterance can receive the tonic stress **provided that the contrastively stressed item can be contrastable in that universe of speech**. No distinction exists between content and function words regarding this. The contrasted item receives the tonic stress provided that it is contrastive with some lexical element (notion) in the stimulus utterance.

Contrastive stress is used to point out the difference between one object and another. It tends usually to be used with determiners such as 'this, that, these, those'. Consider the following examples:

a) Do you like this one or `**THAT** one?

b) I like `**THIS** one.

a) Do you want these or `**THOSE** curtains?

b) I like `**THOSE** curtains.

Contrastive stress is also used to bring out a given word in a sentence which will also slightly change the meaning. Consider the following:

- ✓ She played the piano yesterday. (It was her who...)
- ✓ She played the piano yesterday. (She only played (not. harmed) ...)
- ✓ She played the piano yesterday. (It was the piano that...)
- ✓ She played the piano yesterday. (It was yesterday...)

Observe again in the sentences below the meaning changes according to the contrastive stress.

- ✓ **HE** came to the party yesterday. (it was he, not someone else)
- ✓ He **Walked** to the party yesterday**.** (He Walked, rather than drove)
- ✓ He came to the **Party** yesterday. (It was a party, not a meeting or something else)
- ✓ He came to the party **Yesterday**. (It was yesterday, not two weeks ago or some other time)

4- New Information Stress:

In a response given to a **wh-question**, the information supplied, naturally enough, is **stressed**. That is, it is pronounced with more breath force, since it is more prominent against a background given information in the question. Simply said, when asked a question, the requested information is naturally stressed more strongly.

a) What's your **NAME**? b) My name's **GEORGE.**

a) Where are you **FROM**? b) I'm from **WALES**.

a) Where do you **LIVE?** b) I live in **BONE**

a) When does the school term **END?** b) It ends in **MAY**.

a) What do you **DO?** b) I'm a **STU**dent.

The questions given above could also be answered in short form except for the last one, in which case the answers are:

George, Wales, in Bone in May a Student

In other words, 'given' information is omitted, not repeated. In the exchange:

a) What's your **NAME**? b) (My name's) **George**.

The 'new' information in this response is 'George.' The part referring to his name is given in the question, so it may be omitted.