

Word Stress and Intonation: Introduction

WORD STRESS

One or more syllables of a polysyllabic word have greater prominence than the others. Such syllables are said to be accented or stressed. Word stress has two linguistic functions: **constitutive** (arranging syllables in words) and **distinctive**: you can see it in the oppositions of words consisting of the same morphemes the meaning of which is differentiated by word stress ('object – to ob'ject).

In English there are three degrees of word stress: **stressed syllables** (primary stress), **half-stressed syllables** (secondary stress) and **weak or unstressed** syllables.

Reduction

In English vowels in unstressed syllables are usually reduced. Reduction is a historical process of weakening, shortening or disappearance of vowel sounds in unstressed positions. Three types of reduction are noticed in English:

- **Quantitative** – shortening of a vowel sound in an unstressed position; it affects mainly long vowels. E.g. He [hi] – [hi].
- **Qualitative** – obscuration of vowels towards [ə]; it affects both long and short vowels. Can [kən];

Vowels in unstressed word-forms—in most cases undergo both quantitative and qualitative reduction. To [tu] – [tʊ] or [tə] or even [tʰ]. The third type is the **elision** of vowels in an unstressed position: I can go [kn'gou]

Syllable structure

A syllable is a speech unit consisting of a sound or a sound sequence one of which is heard to be more prominent than the others. The most prominent sound being the peak of a syllable is called **syllabic**. Syllabic sounds are generally vowels (monophthongs, diphthongoids, diphthongs) and sonorants. Among syllabic sonorants we find [l, n] and less commonly [m]. ['gɪgl, 'dəzn, 'blasm]

INTONATION AND INTONATION PATTERNS

Intonation is a complex unity of speech melody, sentence stress, tempo, rhythm and voice timbre, which enables the speaker to express his thoughts, emotions and attitudes towards the contents of the utterance and the hearer

- **Pauses** are moments of silence in the flow of speech.
- **Sentence stress**, or accent, is the greater prominence of one or more words among other words in the same sentence.
- **Pitch**, or melody, is the changes in the pitch of the voice in connected speech.
- **Tempo** is the relative speed with which sentences and intonation-groups are pronounced in connected speech.
- **Speech timbre** is a special coloring of voice which shows the speaker's emotions.

The functions of intonation:

- to form sentences and intonation-groups
- to define their communicative type
- to express the speaker's thoughts
- to convey the attitudinal meaning.

A sense group is a meaningful part inside a sentence, a separate segment describing an element of reality (objects, actions, properties, and agents), "a group of words that make sense when put together." It is the shortest unit of speech from the point of view of meaning, grammatical structure and intonation.

A sense group = an intonation group

All the components of intonation, though in different degrees, take part in shaping a sense-group. It is achieved by the correct distribution of sentence stress, the appropriate use of rhythm, tempo, pauses and the appropriate pitch treatment together with timbre (neutral or emotional). From the phonetic point of view, a sense group is intonation group.

MORE ON PAUSES

Pauses are normally made to take breath at points where they are necessary or allowable from the point of view of the meaning of the sentence. They are used **in the end of the sentence** to delimit it from other sentences, and **within the sentence**, to separate sense groups.

In writing pauses are denoted by punctuation marks: the comma, the colon, the semicolon (within the sentence) and the full stop, the exclamation point and the question mark in the end of the sentence. However, pauses within the sentence may remain unmarked in writing.

The length of the pause depends on:

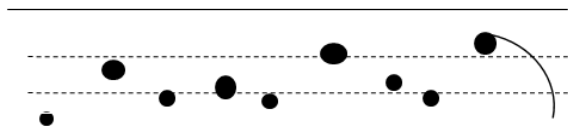
- Degree of independence
- Semantic importance
- Connection of the adjacent parts in the flow of speech
- The rate of speech

The more independent and semantically important a sense group is, the longer the pause after it. Long pauses are used at the end of the sentence. Shorter pauses are used inside a sentence, to separate sense groups.

A potential pause

When the pause is extremely shorter even actually absent, it is called a **potential** or **psychological pause**. In this case the delimitation of a sense group depends on the change of pitch in the voice.

I stayed at **home** and **worked** at my book.



The pitch of the voice of “worked” is higher than the pitch of “home” and this delimits these sense groups instead of an actual pause.

Potential pauses are used when the rate of speech is great, or the degree of independence or semantic importance of a sense group is small, and when it is closely connected with the adjacent sense group.

For the purposes of phonetics, **the long pause** is represented graphically by two vertical bars: ||

the short pause is represented graphically by one vertical bar: |

the potential pause is represented by a vertical wavy line: {

MORE ON SENTENCE STRESS

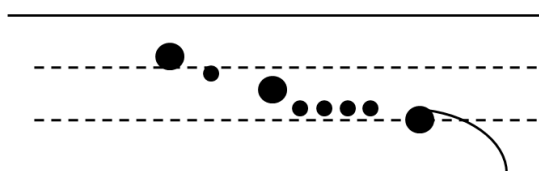
How do you create sentence stress?

- 1) Greater force of exhalation and muscular tension
- 2) pitch (and volume) change
- 3) the full, distinct pronunciation of sounds (their quality)
- 4) the greater length of sounds (their quantity)

Why do we need sentence stress?

- 1) To single out words in a sense group according to their relative semantic importance.
- 2) To form the rhythmical basis of the sense group

E.g. Not so easy as you might \ think.



In the sentence the underlined words have sentence stress because they are semantically important in the sentence, and since they occur at more than less equal intervals of time, they form the rhythm of the sentence.

The **main function of sentence stress** is to single out the communicative center of the sentence, which introduces new information and is, therefore, the most important piece of information conveyed in the sentence. Also sentence stress performs a distinctive function and distinguishes the speaker’s modal and emotional attitude to the words.

The communicative center of the sentence may be expressed by a single word or a number of words. Usually it is the last word in a sense group and it carries **the terminal tone** – which contains a change in the direction of the pitch of the voice (a fall ↘, a rise ↗, etc.). It is not always the last word in the sentence,

But it is 'only 'half •past \ five!

But it is 'only \ half past• five!

In both cases the fall is used to show that this word is the most important piece of information in the sentence.

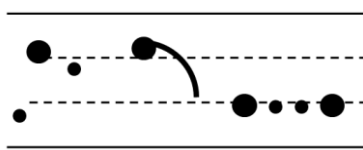
Exercise: Pronounce the sentences changing sentence stress and thus the communicative center.

She went to see her brother in New York. I didn't say he stole the money. What did you do in the war?

Degree of Sentence Stress

Sentence stress may vary in degree. A word may be **accented** (fully stressed), **stressed** (partially stressed) and **unstressed**.

- 1) **An accented** (or **fully stressed**) word is made prominent by all the means of sentence stress (pitch, force of articulation, quality and quantity of sounds). Marked by '.
- 2) **A stressed** (or **partially stressed**) word is made prominent through force of articulation, quality and quantity of sounds. The pitch of the voice does not change. Marked by ,
- 3) **An unstressed** word is not made prominent.



The 'children \all said they would go.

The words "children" and "all" are accented (all being the communicative center and containing the terminal tone), the words "said" and "go" are stressed, and all the other words are unstressed.

Sometimes different terms are used to differentiate between:

1) Partial sentence stress

The 'children \all **said** they would **go**.

2) Full unemphatic sentence stress

The '**children** \all ,said they would go.

3) Full emphatic sentence stress

The 'children **all** ,said they would go.

Function of Sentence Stress

In terms of its function, sentence stress can also be subdivided into **syntagmatic stress**, **syntactic stress** and **logical stress**.

1) **Syntagmatic stress** presents the most important functional type. Together with the main tones it singles out the semantic center of the sentence or a sense group. In sentences where no word is made specially prominent (so, by default) syntagmatic stress is usually realized in the last stressed word:

E. g. I am 'sending you 'two 'tickets for the **theater**.

2) **Syntactic (or normal) stress** marks the other semantically important words within the utterance.

E. g. I am '**sending** you '**two** '**tickets** for the \theater.

3) **Logical stress** is connected with the shifting of the syntagmatic stress from its normal place on the last stressed word to one of the preceding words. It creates a new communicative center.

E. g. I **am** sending you 'two 'tickets for the theater.

Logical stress often expresses something new to the listener (**novelty stress**), contrast (**contrastive stress**) or emphasizes something of special importance (**intensity stress**).

- Your **Math** exam is on the fifth.
- Your exam is on the **fifth**, not on the first.
- You **have** an exam on the fifth.

Words with and without sentence stress

Words which bear the major part of intonation are generally stressed and are called **content (or notional)** words. These are: nouns, adjectives, notional verbs, adverbs, numerals, interrogative and demonstrative pronouns as well as the absolute form of possessive pronouns (mine, yours, his, hers, its, ours, theirs). However, sometimes these words weaken or even lose their sentence stress under the influence of logical stress and rhythm, although they always retain their full vowel quality.

'How can you \know? (*default*)

How \can you ,know? (*logical stress*)

The other words in a sentence are mostly **form (or structural) words** which link the content words and help us in this way to form the utterance. They are: articles, prepositions, conjunctions, particles, and also auxiliary and modal verbs, personal and possessive pronouns. These are not many in number but they are among the commonest words of the language.

As form-words are normally unstressed in a sentence, their weak reduced forms are generally used in speech. However, sometimes they may get sentence stress if they become logically important or under the influence of rhythm.

Will you 'stick to the \point? (*default*)

'Will you 'stick to the \point? (*rhythm*)

This is \good for ,you (*default*)

This \is good for ,you (*logical stress*)

Pronunciation of form words

As form words may be stressed and unstressed, they have two forms of pronunciation: **strong** and **weak**.

- In a **strong form**, the quality and quantity of the vowel full and distinct. E.g. Can [kæn], from [fræm]
- In a **weak form** the quality of the vowel is reduced, and the length is shortened: E.g. Can [kən] or [kn], from [frəm], [frm].

Pronunciation of unstressed words: Clitics, enclitics and proclitics

- A **clitic** is a morpheme that has syntactic characteristics of a word, but depends phonologically on another word or phrase.
- An **enclitic** is a clitic (or a word) pronounced with so little emphasis that it is shortened and forms part of the preceding word: for example *n't* in *can't*).
- A **proclitic** is a clitic that is attached to the beginning of another word, forming an accentual unit with the following word.

In English unstressed words **within a sense group** and **at the end of a sense group** have a tendency to cling to the preceding words with sentence stress, and form its **enclitics**.

I've been 'trying to \call you.

Initial unstressed syllables cling to the following word and form is **proclitic**..

I've been 'trying to \call you.

However, proclitics may also be used inside a sentence, when unstressed words are closer semantically to the following word:

He 'rose • without a \word. (“without” clings not to “rose,” but to “word,” forming its proclitic).

MORE ON RHYTHM

Rhythm in speech is the arrangement of spoken words alternating stressed and unstressed elements; the regularity of stressed syllables in time. In English rhythm there is a strong tendency to pronounce stressed syllables at equal intervals of time.

From the point of view of rhythm, a sense group is divided into **rhythmic groups**. A rhythmic group is a group of syllables, which consists of one stressed syllable and several unstressed ones.

1	2	3	4	5
Walk	down the	path in the	end of the ca	nal
1	2	3	4	5
They couldn't have	chosen a	better	time for their	holiday

What is the influence of rhythm upon word stress?

English speech strongly tends towards a regular alternation between stressed and unstressed syllables, and often adjusts word stress to bring this about. This is especially noticeable in cases such as following, which all show the effect of what is called **stress-shift**:

- Compact (adj.) [kəm'pækt] **but** compact disk ['kæmpækt 'dɪsk]
- Thirteen [θɜ:'tɪn] **but** thirteenth place ['θɜ:tɪnθ 'pleɪs]
- Westminster [west'mɪnstə] **but** Westminster Abbey ['westmɪnstə 'æbi]

Under the influence of rhythm, notional words may lose their stress in a sentence:

He \left ,London. 'John left \London

What is the influence of rhythm upon the rate of speech and the length of sounds?

The greater the number of unstressed syllables between the stressed syllables, the more rapidly they are pronounced. The more rapidly the unstressed syllables are pronounced, the shorter the vowels in them are.

- 1) We will 'start im'mediately if you are 'ready.
- 2) I'd like a sandwich.
I'd like a chicken sandwich
I'd like a chicken salad sandwich
I'd like a chicken salad sandwich on whole wheat toast.

MORE ON TEMPO AND TIMBRE

The rate of speech with which syllables are pronounced, and the number and length of pauses determine **the tempo** of speech. Tempo is not constant, it changes and shows the relative semantic importance of a sense group and the speaker's emotions. Stressed elements are said slower than unstressed ones.

Timbre is a special tone coloring of the speaker's voice. It serves to express joy, sadness, anger, indignation, etc. A speaker's voice may be characterized as flat, resonant, creaky, husky, bright, dark, soft, flurry, etc. The physical nature of timber has not yet been physically established.