
Lecture 6

WORD STRESS IN ENGLISH

§ 1. Nature of word stress

The syllabic structure of words is closely connected with their accentual structure. The sequence of syllables in a word is not pronounced identically, some syllable(s) are uttered with greater prominence. These are known as **stressed** or **accented syllables**.

Stress in isolated words is termed 'word stress'; stress in connected speech is termed 'sentence stress'. Word stress in English is indicated by placing a special stress mark before a stressed syllable //'. Sentence stress also needs special marking.

The term 'word stress' doesn't get a single definition in linguistics. It is defined as:

- an increase of expiratory energy and articulatory activity (B.A. Bogoroditsky);
- the greater degree of force exhalation and loudness (D. Jones);
- the changes in the degree of force of breath (H. Sweet); etc.

It is clear that the effect of prominence of a stressed syllable is achieved due to distinctions in its articulatory and auditory characteristics which vary in different languages. Thus the most suitable and generally accepted approach lies in studying the nature of word stress.

Word stress should be defined as a complex phenomenon marked by the changes of force, pitch, quantitative and qualitative components. The correlation of these components determines the nature of word stress in an individual language, so that:

1. force (dynamic) stress implies greater force and intensity of articulation in stressed syllables;

2. tonic (musical) stress is connected with the variations of voice pitch in stressed syllables;
3. quantitative stress concerns the increase of the length of nuclear vowels in stressed syllables;
4. qualitative stress deals with the colour of nuclear vowels, which reveal all their distinctive features in stressed syllables.

It would be fair to mention that the predominance of one component within a single language is less frequent than the combination of different components. For instance, in Swedish the force stress is combined with the tonic one: the word *komma* changes the meaning from 'comma' into 'come' when its stressed syllable gets additional differentiation in tone. Yet Chinese is characterized by the tonic stress only: the word *chu* changes its meaning according to the pitch of the voice into *pig* (level tone), *bamboo* (rising tone), *to live* (falling tone).

The nature of word stress in English is a disputable question. It is traditionally defined as mostly dynamic stress with some tonic component. But modern phonology suggests another approach. Some linguists (D. Crystal, A.G. Gimson, S.F. Leontyeva, and others) state that the special prominence of English stressed syllables is manifested not only through the increase of intensity and pitch variations, but also through the changes in the quantity of vowels and quality of vowels and consonants.

Indeed, if we compare stressed and unstressed syllables in the words *abstract* ['æbstrækt] and *to abstract* [əb'strækt], we may notice the following peculiarities of the stressed syllables:

- their force of stressed syllables is greater, as the articulation is more energetic;
- the voice pitch is higher, because the vocal cords and the walls of the resonator are more tense;
- the quantity of the vowel [æ] in [əb'strækt] is greater, as it is longer;
- the quality of the second vowel [æ] in ['æbstrækt] is also different, because it changes the distinctive features from a broad variant of the open vowel closer to a narrow one.

So the problem of components interrelation in the English word stress is still awaiting its solution.

As far as the Russian language is concerned, the word stress presents the combination of force, quantitative and qualitative components. For example, the vowel [и] is pronounced with different length in stressed and unstressed syllables in the words *иди́* and *и́дущи*; the quality of the vowel [о] in the words *зро́за* and *зро́зы* undergoes great changes because of word stress.

§ 2. Placement of word stress in English

The traditional classification of languages according to the placement of word stress includes languages with fixed and free stress.

If the stress is limited to a particular syllable of a polysyllabic word, it is called **fixed**. For example, in French the stress always falls on the last syllable of the word, in Finnish and Czech — on the first syllable, in Polish — on the last but one syllable.

If the place of the stress is not confined to a specific position in a word, it is called **free**. Such a placement of stress is exemplified in the Russian language where the stress may fall on the first, second, last or other syllables in different words (*о́блако* — *мо́роз* — *молоко́*).

The English language represents a more complicated case, because it tends to combine free and fixed tendencies of the placement of word stress. It holds true that word stress can fall on different syllables in English words (*'mother*, *'cinema*, *ba'lloon*, *de'mocracy*). Moreover, there are cases of stress shifting which help to differentiate parts of speech or derivative word-forms (*'import* — *to im'port*, *'library* — *li'brarian*). Still the placement of stress in English words is highly predictable, as its position in most cases is the product of the historical language development.

In order to avoid accentual mistakes and difficulties in establishing the stress pattern of English words, it is necessary for language learners to know the basic rules of accentuation, which are presupposed by the origin of English words and their rhythmic or morphemic structure.

§ 3. Degrees of word stress in English

According to the degree of prominence, word stress is divided into **primary** and **secondary stress**. Both types serve to single out stressed

syllables in a word, but the degree of prominence achieved by the primary stress is greater than that indicated by the secondary stress.

Notional words in every language have primary stress, which is also termed 'main' or 'nuclear'. The existence of secondary stress in polysyllabic words is not characteristic of all languages.

For example, English words with the number of syllables counted one to four usually have one primary stress ('toy, 'owner, 'character, psy'chology), but most words of more than four syllables have two stresses: primary and secondary (pro,nunci'ation). In the Russian language polysyllabic words have only one primary stress (произноше́ние). The most common mistake made by Russian students consists in omitting the secondary stress in words like *demonstration* [,deməns'treɪʃn] under the influence of the primary stress pattern *демонстра́ция*. Therefore special attention should be paid to this peculiarity of English word stress in the process of language teaching.

The foresaid distribution of the degrees of word stress is backed up by all linguists. However, the opinions of phoneticians differ concerning the following question: how many degrees of stress are linguistically relevant in a word?

Russian linguists consider that unstressed syllables should not be taken into account, whereas foreign ones state that there are actually as many degrees of stress in a word as there are syllables.

British scholars usually distinguish three degrees of stress in a word:

- primary stress, which is the strongest;
- secondary stress, which is less prominent;
- weak stress, which is realized in unstressed syllables.

American scholars distinguish four degrees of word stress:

- primary stress;
- secondary stress;
- tertiary stress;
- weak stress.

The difference between the secondary and tertiary stresses is rather vague and seems to be predetermined by the differences between British and American variants of English.

For example, some suffixes of nouns and verbs get additional tertiary stress in American English ('*terri*,*tory*, '*dictio*,*nary*, '*adver*,*tize*). Yet the tendency to use tertiary stress on a post-tonic syllable is also traced in modern British English.

Due to some peculiarities of the English language, some polysyllabic words have two primary stresses ('*seven*'*teen*, '*good*'-'*looking*, to '*mis*'*lead*). The difference between them is marked by the predominance of some components determining the nature of word stress.

The first main stress, which is called 'pre-nuclear primary stress', is accompanied with the change of the pitch level height. The second main stress, which is called 'nuclear primary stress', is affected by a change of pitch direction and forms the accentual nucleus of a word. There are cases when the two primary stresses may be accompanied with a secondary one ('*re*,*organ*'*ization*).

It's necessary to mention that all the words with two primary stresses in modern English may have variants in accentuation generally observed in connected speech. They are usually pronounced with two primary stresses in a careful normative conversation and retain the difference between the nuclear and pre-nuclear primary stress ('*indi*,*vidu*'*ality*, '*ir*'*regular*). But in a rapid colloquial conversation the degree of the first primary stress may be changed into the secondary or even weak one ('*indi*,*vidu*'*ality*, '*ir*'*regular*).

§ 4. Phonemic distribution in stressed syllables

The accentual structure of the English language is closely connected with the distribution of vowel and consonant phonemes.

All English vowels may occur in stressed syllables with the exception of [ə], which is never stressed. The intensity of English vowels in identical stressed positions is different. It is the highest in [a:] and then gradually reduces to [ɪ] as follows: [a:, o:, ə:, i:, u:, æ, ɔ, e, u, ɪ].

English long vowels, diphthongs and diphthongoids retain their quality in stressed positions (*army* ['a:mɪ], *eager* ['i:gə], *waiter* ['weɪtə]). Unstressed diphthongs may partially lose their glide quality (*subway*

[ˈsʌbweɪ]). Vowels [ɪ, u, ə] tend to occur in unstressed syllables. Syllables with the syllabic sonorants [l, m, n] are never stressed.

English consonants tend to keep their distinctive features in stressed syllables: stops have a complete closure, fricatives have full friction, fortis-lenis features distinction is clearly defined.

§ 5. Functions of the English word stress

In phonology the notion ‘word stress’ is replaced by the term ‘accenteme’ introduced by V.A. Vassilyev.

The **accenteme** is a suprasegmental phonological unit which varies in degrees, placement and performs different functions.

The functions of word stress as a unit of phonology are as follows: constitutive, recognitive, and distinctive.

1. The constitutive function consists in the ability of word stress to organize the syllables into language units with a definite accentual structure. A word does not exist without word stress, and any sound continuum becomes a phrase only when it is divided into units organized by word stress into words.
2. The recognitive (identificatory) function of word stress enables a person to identify a succession of syllables as the definite accentual pattern of a word. Correct accentuation helps the listener to make the process of communication easier, whereas misplacement of stress prevents normal understanding.
3. The distinctive function of word stress consists in its ability to differentiate the meaning of words and word-forms.

Primary accentemes are represented by stressed word positions. Weak accentemes are found in unstressed positions.

Accentuation oppositions usually consist in the shifting of word stress or changing its degrees, which may or may not be accompanied with vowel reduction.

When primary word accentemes are opposed to weak ones, they help to differentiate between words, word-forms or word combinations in the English language:

transport ['træns'pɔ:t] — *to transport* [træns'pɔ:t];

mankind ['mænkaind] — *mankind* [mæn'kaɪnd];

blackboard ['blækbo:d] — *black board* ['blæk 'bo:d].

The same functions characterize the processes of word-building and word-formation in the Russian language: *замок* — *замо́к*, *безобразная* — *безо́бразная*, *ноги* — *но́ги*.

§ 6. Stress tendencies in modern English

The accentual structure of English words is rather unstable due to differences in the origin of English vocabulary. Modern English word-stock presents a mixture of native and borrowed words, and it is small wonder that lexical layers of different origin follow different tendencies in accentuation.

Three main tendencies characterize word stress in the English language: recessive, rhythmical, and retentive.

1. The **recessive tendency** is observed mostly in monosyllabic or disyllabic words of Anglo-Saxon origin and some French borrowings. It is explained by the fact that in Germanic languages the stress originally fell on the initial syllable or the second (root) syllable in words with prefixes.

Unrestricted recessive tendency indicates native English words without prefixes (*'mother*, *'swallow*) and assimilated French borrowings dated back to the 15th century (*'reason*, *'colour*) with the stress on the first syllable.

Restricted recessive tendency characterizes English words with prefixes (*fore'see*, *be'gin*) where the root syllable is stressed.

2. The **rhythmical tendency** in present-day English is caused by the rhythm of alternating stressed and unstressed syllables in polysyllabic words. It explains the placement of primary stress on the third syllable from the end in three- and four-syllable words (*ar'ticulate*) and the use of secondary stress in multisyllabic French borrowings (*ˌrevo'lution*).
3. The **retentive tendency** is traced in the instability of the accentual structure of English words. According to it a derivative often retains

the stress pattern of the original parent word: *'similar — a'ssimilate, ,recom'mend — ,recommen'dation.*

For a long time the recessive and rhythmical tendencies have been in constant interrelation. This is clearly shown on the diachronic level in the process of historic assimilation of French borrowings. The shift of the original French stress in trisyllabic words onto the first syllable is the result of the strong recessive tendency and also the adaptation to the weaker rhythmical tendency (*'faculty, 'possible*).

On the synchronic level the gradual strengthening of the rhythmical tendency becomes obvious. It may be illustrated by a great number of variations in the accentual structure of English multisyllabic words, which get a spoken pronunciation variant with the stress on the second syllable (*'hospitable — ho'spitable, 'distribute — dis'tribute, 'aristocrat — a'ristocrat*). The tertiary stress marking on the third syllable in American English (*'terri,tory, 'neces,sary*) is also an example of the rhythmical tendency.

§ 7. Stress patterns of English words

The distribution of stressed syllables into stress patterns helps to systematize the accentual structure of English words. The classification is made according to the degrees of word stress and the number of stressed syllables. It is also closely connected with the morphological type of words and the semantic value of their parts (roots and affixes).

1. [\perp — (—)].

The pattern with the primary stress on the first syllable marks:

- disyllabic words subjected to the recessive tendency (*'father, 'sunny, 'palace, 'office*);
- trisyllabic words with or without suffixes subjected to the rhythmical tendency (*'family, 'scientist, 'populate, 'active*);
- compound words with greater semantic significance of the first component (*'gas-pipe, 'bookcase*).

2. [— \perp (—)].

The pattern with the primary stress on the second syllable is realized in:

- disyllabic words with historical prefixes subjected to the restricted recessive tendency (*be'cause, pro'claim, a'part, for'get*);
 - disyllabic verbs with the endings *-ate, -ise/ize, -y* (*nar'rate, com'prise, de'fy*);
 - words of three or four syllables with suffixes subjected to the rhythmical tendency (*phi'lology, de'mocracy, ex'perience, o'riginate*).
3. [\perp (—) \perp (—)].
- The pattern with two primary stresses is generally observed in:
- compound nouns or adjectives, consisting of two roots (*'well-'bred, 'absent-'minded, 'tea-'pot, 'ice-'cream*);
 - composite verbs with postpositions (*'get 'up, 'come 'out, 'give 'in*);
 - compound words with separable prefixes (*'un'fair, 'dis'appear, 'ex'minister, 're'play*).
4. [\perp \top —].
- The pattern with primary stress followed by the secondary one is very common among compound words as the accentuation variant of the third pattern (*'hair-, dresser, 'dog-, killer, 'sub, structure*). It is often realized in connected speech.
5. [(—) \top (—) (\perp) —].
- The pattern with the secondary stress preceding the primary one marks a great number of simple polysyllabic words with affixes (*intu'ition, ,govern'mental, pe,culi'arity, ,repre'sent*). It is as well found in compound words as the accentuation variant of the third pattern in connected speech (*, misin'terpret*).
6. [\perp \perp \perp (\perp)].
- The pattern with three and more primary stresses is characteristic of initial compound abbreviations (*'B'B'C (British Broadcasting Corporation), 'N'Y'S'E (New York Stock Exchange)*).
7. [\top (—) \top (—) \perp —].

The pattern with two secondary stresses preceding the primary one is found in a very small number of words with the stressed prefixes, roots and suffixes ('*sub'organ'ization*, '*indiv'iduali'zation*).

8. [$\perp \perp$ (→) \top —].

The pattern with two primary stresses preceding the secondary one is rarely found in compound words with separable prefixes ('*un'trustworthy*).

The patterns described above suggest the idea of great variability in the accentuation of English words. The most widely used are patterns # 1, 2, 4 and 5, which cover the main part of common English vocabulary. Still there are a lot of words which have variants in accentuation. They may differ in:

- number of stresses: *UNSC* [$\perp \perp \perp \perp$] or [\perp — — \perp];
- place of stress: *laryngoscope* [\perp — — —] or [— \perp — —];
- degree of stress: *disability* [\perp — \perp — —] or [\top — \perp — —]; etc.

This fact underlines the instability of English accentual structure multiplied in connected speech.

§ 8. Basic rules of accentuation

Stress tendencies and the system of stress patterns helps to establish basic rules of accentuation, which are very useful for language learners.

The accentual structure of simple and derivative words is rather complicated.

Language learners should stick to the following rules:

- most disyllabic words have stress on the first syllable ('*water*, '*finish*);
- disyllabic words with prefixes of no referential meaning of their own have stress on the second syllable (*mis'take*; *be'hind*);
- most three- and four-syllable words have stress on the third syllable from the end ('*criticism*, *re'markable*);
- four-syllable words with suffixes *-ary*, *-ory* have stress on the first syllable ('*stationary*, '*territory*);

- polysyllabic words with the primary stress on the third syllable have secondary stress on the first syllable (*'proba'bility*);
- polysyllabic words with the primary stress on the fourth and fifth syllable have secondary stress on the second syllable (*ar'ticu'lation*);
- polysyllabic words with separable prefixes with a distinct meaning have two primary stresses (*'un'known*, *'dis'charge*, *'re'pay*, *'mispro'nounce*, *'pre-'war*, *'ex-'wife*, *'inter'view*, *'anti-ag'gressive*).

Special attention should be paid to the accentual structure of compound words. Variability in the accentuation of English words is multiplied many times because of the variability in compound structures of the English language.

In order not to make mistakes, the following rules should be observed:

- compound numerals have two primary stresses (*'twenty-'four*);
- compound adjectives are generally double-stressed (*'well-'known*);
- compound adjectives with semantically weak second component are single-stressed (*'childlike*), but they are not numerous;
- compound verbs with post-positions get two main stresses (*'put 'off*);
- compound nouns are usually single-stressed (*'strong-box*), and thus differ from word combination with two stressed words (*'strong 'box*);
- compound nouns with the equal significance of both elements are double-stressed (*'ice-'cream*), but they are quite rare.

§ 9. Variations of word stress in connected speech.

Sentence stress

The realization of English word stress in actual speech may not coincide with that in individual words. As it's been stated before, the notion

of word stress is closely connected with the notion of **sentence stress**. This connection is exercised with the help of their similar and different features.

On the one hand, word stress and sentence stress have a lot in common:

- the accentual structure of a word predetermines the arrangement of stresses in a phrase, because sentence stress usually falls on the syllables marked by word stress;
- the stress pattern of a phrase is conditioned by the semantic and syntactical value of words, as only notional words are generally stressed;
- the rhythmical tendency of words and phrases is observed in the alternation of stressed and unstressed syllables at approximately equal intervals.

On the other hand, the demarcation of word stress and sentence stress is rather distinct:

- the sphere of application is different, as they characterize different language units: word stress is applied to a word, but sentence stress is applied to a phrase;
- the syntactical value of words isn't always kept, because there are cases when notional words are not stressed in a phrase (*I 'don't like that 'man!*);
- the rhythmic structure of a word and a phrase may not coincide, as the number of stresses varies within isolated words and different phrases (*'Fif'teen. → 'Open 'page 'fifteen. → He 'mounted 'fifteen 'hills.*);
- the stress characteristics of a word are changed under the influence of the tempo of phrases, because quick speed of articulation usually causes the dropping of secondary stress (*The 'mass demons'tration was sup'pressed by 'local au'thorities.*).

So in connected speech the accentual structure of a word obtains additional characteristics. This fact sometimes presents difficulties for language learners. They should be aware of the most widely spread accentual patterns of words, as well as of their modifications caused by rhythm, melody and tempo of utterances.