SECONDARY WORD STRESS
IN THE RHYTHMIC WORD STRUCTURE

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ABSTRACT

The subject is the rhythmic structure of polysyllables with a primary (first - PS), one or more secondary stresses (SS); the morphological secondary stress (MSS), the rhythmic one (RSS), their functions, placement in a word, ways of manifestation, interaction, in Russian, English, German, French, according to the pronunciation dictionaries, auditory samples collection and on experiments.

GENERAL PRESENTATION

In the majority of word stress languages there is only one PS in a word: in Russian different syllables may be stressed; in German it tends to occur in the stem syllable and it falls on the beginning of words.

However in English words having separable prefixes and in compound words there may be two equally strong PSs, and in abbreviated compounds and abbreviations - even three or four. For instance: "week-end", "radio-active", "normal-school". The word accentual pattern with equal stresses is considered to be productive in English.

In word stress languages a polysyllable can possess not only a PS but also one or more SS of various types which differ in position and functions and ways of the phonetic realization. One of the types of the SS - the MSS - is determined by the morphological structure of the word and occurs in compounds and abbreviated compounds (more often in polysyllables), abbreviations, in the word whith accentually prominent morphemes (prefixes, suffixes).

Thus, in Russian this stress may mark a non-terminal stem of the compound or abbreviated compound ("лексико-"товник", "соб"бор), a non-final element of the initial abbreviation ("

The word of the analogous morphological structure with two prosodic heads can be found in English ("a"larm-clock, "air-host", "anybody", ABC/"eibii:"si:/, "ante"chamber, "sub"structure), in German ("Schre"b'isch, "Auf"bau, "rot"weil). It should be said that in German both prefixes (separable - "trennbar"), and suffixes with unreduced vowels ("schwe"r") may be accentually prominent morphemes ("aus"nehmen, "Nach"er'z"ahlung, "Wirtschaft, "Frei"heit, "arbeitlos"); in English - "separ"able prefixes and "prominent" suffixes with an unreduced vowel ("sub'vAri'ety", "non'-con'ducting, "amphitheatre", "demonstrate, "beautify, "socialize").

Depending on the number of stems and accentually prominent morphemes there may be one or several MSSs: "двадцать"тия"тиву"блё"вьй, "проф"те"хе"во"явление, "МГУ"эм'га"у"; "air'-"speed meter, "air"-vice"-marchal; "Selbst'et""н"м""н"г""чъ""т""р"от'"к""ре"" ;

The mutual placement of the PS and MSS is a characteristic feature of the rhythmic structure of a word in different languages. In Russian MSS always precede a PS; in German it more often follows a PS (it corresponds to the semantic value of different parts of German compound word: in the first place there is a determining part, in the second - a determined one). Compare compound words of an analogous structure in Russian and German: само'лётостро"ение - "Flugzeugproduktion", "радио"станция - "Radiostation", трёх"ногий - "dreia'nomig".

The tendency for a strong beginning in German words determines shifting of the PS on to a separate prefix leaving only a MSS on the stem (both in a separate word and in speech, in which separable prefixes are in a final position in a phrase: "as"chehen - Sie "schreiben diesen "Text ab").

In English the majority of compound words and a few simple words having separable prefixes follow the pattern: PS + PS + SS (in which a prefix has a PS, the stem - a SS): "goal'keeper, "finger'-alphabet; see other examples in Table 13). Simple words having separable prefixes may be formed on the pattern: SS + PS (with the PS on the stem and a SS on the prefix): "inter'raction, a"lign - "rea'lign; the words having "pro"minent" suffixes may follow on the same pattern with the PS on the suffix a SS on the stem: em'ploy - 'employ"e, "engin - 'engle"; "gre"nade - "grena"dier, "picture - "pictu"'resque.

Thus, in spite of the tendency of the PS to fall on the stem syllable in English and German, words having only a PS accentually prominent non-stem morphemes in a word have two stresses, often take a PS, whereas in Russian non-stem morphemes in a word having two stresses receive only a MSS.

A MSS falls not on the same syllable of the stem as a PS in the parent word: "вай'мен - "вай'мер"е"номи, "ey'ty'-mology, "folk'etymology, "bir"ke + Ge'hö"lz - "Birkenge'hö"lz, Bi"l'lett + "Ausga"be - Bi"l'lett"ausgabe. When a root word has a stress on a final syllable, and in case of a shifting stress in a parent word it falls on the syllable which is stressed in one of the derivatives from the same root or one of the grammatical forms of the word: "косло"та - "кисл"оты - "кислот"у"порный, "image - 'imag"i'nation. In Russian stems with the sequence of sounds "olo"-о"ро-, "е"ре- the MSS is shifted to the first syllable of these sequences: модо'ко - (mo"lochny)-'mo"л"окорая"ли"чн"чeчн, connective vowels -e-, -e in Russian compound words are always unstressed. Accentually prominent morphemes retain the etymological placement of stress: "около"солнечн, "ан"тио"п"цн, "Wieder'seh"en, "über'laufen.

Initial abbreviations (in letters) have the following stress patterns in different languages: in Russian - MSS + PS; in English - MSS + PS as well as in compounds): 

The way of the MSS realization is analogous to the phonetic correlates of the PS but with a lesser degree of prominence. In languages characterized by the qualitativ difference between stressed and unstressed vowels absence or presence of the qualitative reduction of a vowel becomes one of the criteria in ascertaining accordingly presence or absence of a MSS or accentual prominence in a word. Compare: го"ролъжн"й, "ге"ръ"лъжн"й, хлеб"бу"р"ч"н"й/хлеб"бу"р"ч"н"й, "гро"н"оми, "агро"номи, ex"pose - "expo"sition, "commune -
A MSS regulates some other phonological processes in the word stem analogous to a PS in the given stem used in isolation. For instance, in Russian word having a MSS there are signals showing the end of the adjacent words, these signals are connected with devoicing of the voiced consonants, darkening of palatalized sounds, absence of palatalization in assimilation, placement of allophones /j/ on the stem ends: "близких /с/", "зовет' делом /ф/", "медицинская /дз/", "механика /тт/", "строо"т /-oba/-, "детские /-та/-.

A MSS performs the same constitutive function to a stem within a compound word as a PS does to the whole word. In case of loss of the meaning by the stem a Russian MSS is lost, this process is accompanied by phonetic changes. In connection with this process changes in the phonetic and accentual characteristics of words are observed.

In English polysyllable having two equally strong stresses the loss of the meaning by the constituent parts of the word leads to decrease of the degree of prominence and replacement of one of the PS by a MSS. The loss of the MSS does not take place; stressed syllables (having PS or MSS) are distinctly opposed to unstressed ones. A MSS is retaining in German in which a compounding is productive way of word-formation and accentual features of the stem syllable becomes one of the means in word-identification.

Another type of the SS - a RSS - is determined by the length of the rhythmic structure of a simple or a compound word, and it occurs in a polysyllable (or a rhythmic group) containing a long prestressed sequence of syllables, it does not depend on the morphological structure of a word.

This type of stress is most vividly represented in French having no word stress in the strict meaning of this term as individual characteristics of each word form; and primary rhythmic stress falls on the last syllable of the rhythmic group. In each rhythmic group there may be one or several more SS on the odd from the end of the rhythmic group syllables: avec un cou"teau, il revient "tard, contre la 'veri"te, Na"bucho'dono"sor. If a primary final stress has a delimitative function of division the utterance into rhythmic groups, a RSS helps the convenience of pronouncing and it forms rhythm of French speech.

In English a RSS is manifested in different ways. It may be observed in simple polysyllable words and words having unseparable prefixes before a PS (and it is different from a MSS which more often follows a PS): "мемлекет", "экономика", "конфиденциальная", "массовой"." In English second stress possibly be-

cause of the identity of the means of their phonetic realization, in particular, absence of qualitative reduction of the vowel. At the same time there are views on some "prominence" of the number of suffixes containing unreduced vowels but having no SS: "celebrate, "normalize, "satisfy. Such "prominence" is similar to "prominent" ("schwere") morphemes in German (having unreduced vowels), also being considered unstressed. Since qualitative and quantitative reductions are usually interconnected, such syllables may be perceived as weakly stressed against the background of reduced unstressed syllables.

A RSS in Russian word of any morphological structure is found on the fourth or fifth prestressed syllables; it is accompanied by a qualitative vowel reduction, and it is expressed only by prolongation and probably by strengthening of a prominent syllable: "запатентованый /объ/-, "целио"бразно/дъ/-, "революционный /рь/-.

This type of stress is never observed in post-stressed sequence of syllables despite of the length of this sequence: "око-ворства /ь/-, "жаворонок /ь/".

Russian word may possess only one RSS which excludes a MSS and may or may not coincide with it in placement in a word (when it coincides, that is there is a MSS on the fourth or fifth prestressed syllable, a RSS helps to retain a MSS in Russian word). It leads to different variants of pronunciation of a word: "многозначный /много/-, "многие/-, "трактовка", "тракт/", "железо","железо"." Thus, in Russian the types of rhythmic patterns of the words having two or many stresses are different from the other languages. They may be represented in patterns: MSS + PS (or MSS + MSS... + PS), RSS + PS.