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# Theoretical Phonetics

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Lecture 6  
Word stress

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# OUTLINE

1. THE NATURE OF WORD STRESS
  2. TYPES OF ENGLISH WORD STRESS
  3. WORD STRESS TENDENCIES
  4. WORD STRESS FUNCTIONS
  5. WORD STRESS PATTERNS.  
GUIDELINES IN THE ENGLISH WORD  
STRESS PLACEMENT
  6. VARIATIONS IN WORD STRESS
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# 1 THE NATURE OF ENGLISH WORD STRESS

**WORD STRESS (WS)** - is the singling out of one or more syllables in a word, which is accompanied by the change of the force of utterance, pitch of the voice, qualitative and quantitative characteristics of the sound which is usually a vowel [Leontieva 1988]

**STRESS CAN BE STUDIED FROM THE POINT OF VIEW OF  
PRODUCTION AND PERCEPTION**

# FACTORS MAKING A SYLLABLE PROMINENT

## 1. LOUDNESS

listeners seem to feel stressed syllables louder than unstressed

(**Peter Roach** - if one syllable in a sequence of identical syllables, e.g. **ba: ba: ba:** is made louder than the others, it will be heard as stressed )

## 2. LENGTH OF THE SYLLABLE

If one of the syllables in e.g. **ba: ba: ba:** is made longer, that syllable is heard as stressed

## 3. PITCH

If one syllable is said with high pitch as compared to the others then it will be heard as stressed

## 4. QUALITY

A syllable can be heard prominent if it contains a vowel that is different in **quality** from neighboring vowels

e.g. *ba: **bi:** ba: ba:*

*Syllable **bi:** will be heard as stressed*

# Prominence of the syllable

## **Dynamic or force stress**

Special prominence in a stressed syllable is achieved mainly through the intensity of articulation

## **Musical and tonic stress**

Special prominence is achieved mainly through the change of pitch, or musical tone

## **Quantitative stress**

Special prominence is achieved mainly through the changes in the quantitative of the vowels, which are longer in the stressed syllables than in the unstressed ones

## **Qualitative stress**

Special prominence is achieved mainly through the changes in the quality of the vowel under stress. Vowel reduction is often used as a manipulation of quality in unstressed syllables

# English stress is traditionally defined as **dynamic**

But in fact, the special prominence of the stressed syllables is manifested in the English language not only through the increase of intensity, but also through the changes in the vowel quantity, consonant and vowel quality and pitch of the voice. (A.C. Gimson)

**Scandinavian languages** - stress is considered to be both dynamic and musical

**In Chinese, Japanese, Vietnamese (oriental languages)-** musical or tonic word stress (it's effected by the variations of voice, pitch in relation to the neighboring syllables)

# 2 Types of English Word Stress

Polysyllabic word has as many degrees of stress as there are syllables  
Designating **the strongest syllable by 1**, the second strongest by 2, etc.

Example

Examination  
ɪgzæmɪneɪʃən  
3 2 4 1 5

indivisibility  
,ɪndɪ'vɪzɪbəlɪtɪ  
2 5 3 6 1 4



# Degrees of word stress

1. **Primary**
2. **Secondary**
3. **Weak**
4. **Tertiary (American linguists)**

*Secondary stress is pre-tonic*

*Tertiary - post-tonic*

# According to the position

1. **Fixed lexical stress** - the word stress is located predominantly on a given syllable in the word
2. **Variable lexical / free stress** - allows much more freedom for placement

*From survey conducted by **Hyman** out of 444 languages 306 have fixed lexical stress and the rest 138 have free stress.*

**Fixed WS** has a **demarcative** function, indicating where the word-boundaries are.

- The languages with **fixed WS**: Tatar, French, Turkic languages, Iranian languages, Finnish, Czech, Polish, Swahili, **etc.**
- The languages with **variable/(free) WS**: Dutch, English, Greek, Italian, Romanian, Russian, Ukrainian, Spanish, Swedish, **etc.**

ON THE FIRST	ON THE SECOND	ON THE THIRD	ON THE FOURTH etc.
<i>'mother</i>  <i>о'зеро</i>	<i>о'ccasion</i>  <i>пог'ода</i>	<i>employ'ee</i>  <i>молок'о</i>	<i>exami'nation</i>  <i>комунік'ація</i>

## 3. WORD STRESS TENDENCIES

### 3. WORD STRESS TENDENCIES

(according to Prof. V. A. Vassilyev)

- **the recessive tendency;**
- **the rhythmic tendency;**
- **the retentive tendency;**
- **the semantic factor.**

# THE RECESSIVE TENDENCY (THE 1ST AND THE OLDEST)

- 1) **unrestricted**: *father, mother, husband, wonder.*
- 2) **restricted**: *among, become, before, forget.*

# THE RHYTHMIC TENDENCY

- is applicable to polysyllabic words,
- results in alternating stressed and unstressed syllables.

Example: *pronunciation* /prə,nʌnsi 'eɪʃn/

# The retentive tendency

consists in the retention of the primary stress of the parent word in the derivative  
*person* - *personal*,

or

the retention of the secondary stress in the derivative: *personal* - *personality*. /,pɜːrsə'nælti/



# Stressing of some words is determined by semantic factor

- **compound adjectives:** *hard-working, blue-eyed,*
- **verbs with post positions :** *sit down, take off,*
- **numerals from 13 to 19:** *fourteen, sixteen.*

# 4. Word stress functions

1. The CONSTITUTIVE
  2. THE IDENTIFICATORY
  3. THE DISTINCTIVE/CONTRASTIVE
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# STRESS PLACEMENT IS DETERMINED BY

1. The morphological structure of a word
  2. The grammatical category of a word
  3. The number of syllables in a word
  4. The phonological structure of the syllables
  5. The historical origin of a word
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# Stressing two-syllable words

1. If second syllable of the VERB contains a LONG VOWEL or a DIPHTHONG, or if it ends with more than one consonant, that **second syllable is stressed** : e.g. *apply, attract, arrive*
2. If the final syllable contains a short vowel and one final consonant, the **first syllable is stressed** : e.g. *open, enter*
3. A final syllable is also unstressed if it contains /əʊ/ e.g. *follow, borrow*
4. Any two-syllable verbs with prefixes of Germanic or Latin origin have the root syllable stressed
5. Two-syllable NOUNS have the FIRST syllable stressed if the second contains a short vowel e.g. *dinner, money, colour* . Otherwise it will be on the Second Syllable e.g. *de'sign, bal'loon*

# Stress of three-syllable simple words

Three-syllable verbs	Three-syllable nouns
<p>If the last syllable of a three-syllable <b>verb</b></p> <p>1) contains a <b>short vowel</b> and ends with not more than one consonant, that syllable will be unstressed, and stress will be placed on the preceding (penultimate syllable): <i>de'terminate</i>, <i>en'counter</i>.</p> <p>2) contains a <b>long vowel</b> or a diphthong, or ends with more than one consonant, that final syllable will be stressed: <i>enter'tain</i>, <i>under'stand</i>.</p>	<p>If the final syllable of a three-syllable simple <b>noun</b> contains</p> <p>1) a <b>long vowel</b> or a <b>diphthong</b> and/or ends with more than one consonant, the stress will usually be placed on the first syllable: <i>'intellect</i>, <i>'marigold</i>.</p> <p>2) a <b>short vowel</b> and the middle syllable contains a short vowel and ends with not more than one consonant, the first syllable will be stressed: <i>'quantity</i>, <i>'cinema</i>.</p> <p>3) contains a <b>short vowel</b> or /əʊ / and if the penultimate syllable contains a long vowel or a diphthong, or if it ends with more than one syllable, that penultimate syllable will be stressed: <i>po'tato</i>, <i>di'saster</i>, <i>sy'nopsis</i>.</p>

# Words with prefixes

## ■ Prefixes of Germanic origin

a-, be-, for-, fore-, mis-,  
out-, over-, un-,  
under-, up-, with

*awake, believe, forgive*

## ■ Prefixes of Latinate origin

a(d)-, com-, de-, dis-,  
ex-, en-, in-, o-, per-,  
pre-, pro-, re-, sub-,  
sur-

*admix, complain,  
discard*

# Types of suffixes

- **Stress-neutral suffixes:** *-hood, -less, -ship, -ful, -ment, -ary, -ery, -ory, -cy-, -acy, -ty;*
- **Stress-imposing /stress-attracting suffixes;**
- **Stressed /stress-fixing suffixes:** *-aire, -eer, -ese, -esque, -ique, -oon, -ette.*

## Stress-imposing /stress-attracting suffixes:

- **-eous**, *advanTAgeous*
- **-graphy**, *phoTOgraphy*
- **-ial**, *proVERBial*
- **-ian**, *PaRIsian*
- **-ic**, *cliMATic*
- **-ical**, *ecoLOGical*
- **-ious**, *inJURious*
- **-ity**, *aBILity*
- **-ion** *eduCAtion*



# Stress in Compounds and Phrases

- **Compounds** typically have **early stress**, the first element is more stressed than the second. *E.g. 'Firewood, 'running shoes*
- **Phrases** typically have **late stress**.

*a **blackbird** = a kind of bird: *Turdus merula**

*a black **bird** = any bird that is black*

*an **English** teacher = a teacher of English*

*an English **teacher** = a teacher who is English*

# Early Stress is usual in compounds in which

- The two elements are written as one word:  
*E.g. 'headline, 'screwdriver, 'laptop, 'lifestyle*
- Expressions consisting of NOUN+NOUN(N+N):  
*E.g. picture frame, child abuse, theme park*
- Expressions consisting of Adjective+NOUN, N+N, N+V, N+Ving:  
*E.g. batting average, bull's eye, crow's nest, landfill, job-sharing*
- Phrasal prepositional verbs used as nouns:  
*e.g. burn-out, lay-off, melt-down*

# LATE STRESS

- when the first element is the material or ingredient out of which the thing is made: *cherry pie*, except for CAKE, JUICE and WATER: *mineral water*;
- the first element is a proper name: *Euston Road*, *the Hilton Hotel*, except for STREET: *Oxford Street*;
- the first element names a place or time: *city centre*, *summer holidays*;
- when both N1 and N2 are equally referential: *acid rain*;
- when N1 is a value: *100 per cent effort*.

# Compound adjectives

## Compounds = EARLY STRESS

a *'darkroom* = a room for developing photographs

a *'moving van* = to carry furniture when one moves house

a *'blackbird* = a kind of bird:  
*Turdus merula*

an *'English ,teacher* = a teacher of English

## Phrases = LATE STRESS

a *,dark 'room* = a room which is dark because there is little light in it

a *,moving 'van* = a van that is in motion

a *,black 'bird* = any bird that is black

an *,English 'teacher* = a teacher who is English

# Variations in Word Stress - stress shift

## RP

'Season ,ticket

,Adam's 'apple

,Peanut 'butter

,Vocal 'cords

## GenAM

,Season 'ticket

'Adam's ,apple

'Peanut ,butter

'Vocal ,cords