

Typology of Phonetic and Phonological Systems of English and Ukrainian

PHONETIC SYSTEM OF A LANGUAGE

PHONEMES

Vowels

Consonants

Monophthongs

Diphthongs



VOWELS in ENGLISH and UKRAINIAN

ENGLISH

- 20 vowels
- 12 monophthongs
[ɪ, i:, e, æ, ʌ, ɒ, ɔ:, ʌ, ɑ:, ʊ, u:, ɜ:, ə].
- 8 diphthongs
[eɪ, ɜʊ, aɪ, aʊ, ɔɪ, ɪə, ɛə, ʊə].

UKRAINIAN

- 6 vowels
[i, e, u, a, o, y]

CLASSIFICATION OF VOWELS ACCORDING TO HORIZONTAL POSITION OF TONGUE

	English	Ukrainian
Front	ɪ: ɪ e æ	і е и
Central	ʊ: ə ʌ	-
Back	ɑ: ɔ: ɒ u u:	а о у

CLASSIFICATION OF THE VOWELS ACCORDING TO THE VERTICAL POSITION OF THE TONGUE

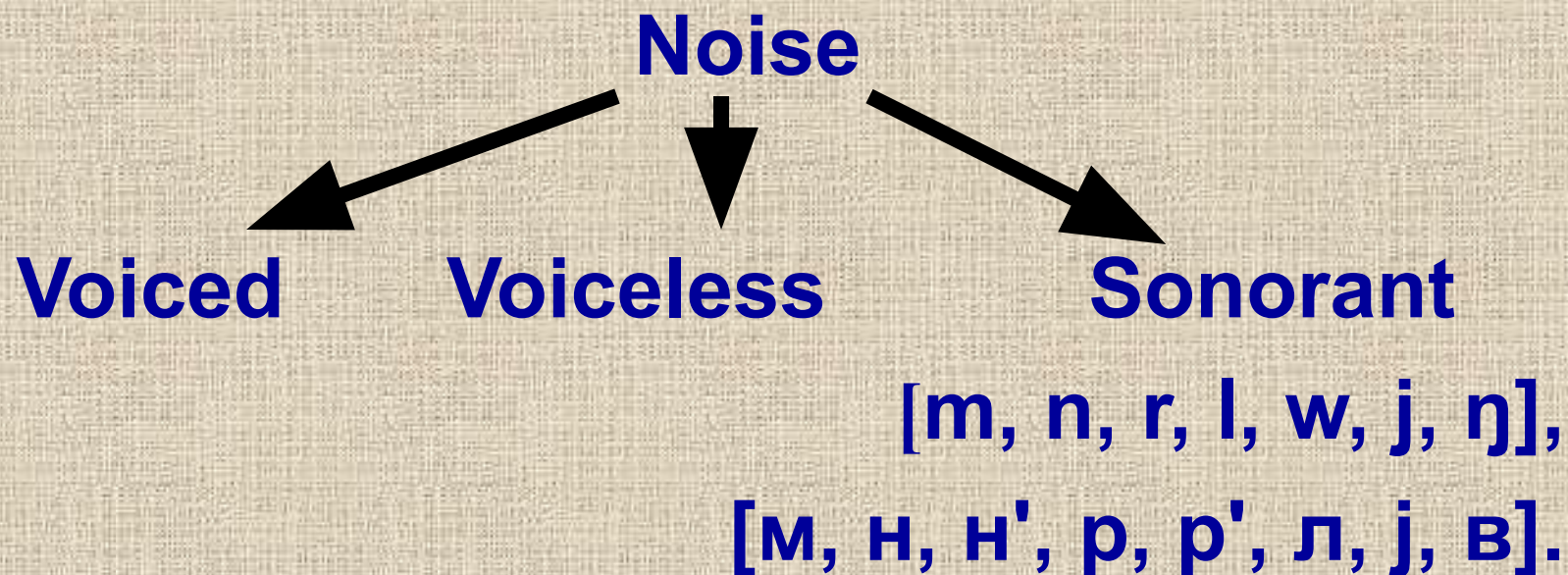
	English	Ukrainian
High	i: ɪ u: ʊ	і и у
Mid	e ɜ: ə ʌ	е о
Low	æ ɑ: ɔ: ɒ	а

CONSONANTS IN ENGLISH and UKRAINIAN

In English
24

In Ukrainian
32

GROUPS OF CONSONANTS ACCORDING TO ROLE OF VOICE AND NOISE



GROUPS OF CONSONANTS ACCORDING TO WAY OF PASSING OBSTRUCTION

Plosive

Fricative

Affricative

[p, t, k, b, d, g]	[f, v, θ, ð, s, z, ʒ, h, j]	[tʃ, dʒ]
[б, п, д, д', т, т', г, к]	[в, ф, з, з', с, с', ж, ш, г, х]	[дж, дз, ч, ц, ц', дз']

GROUPS OF CONSONANTS ACCORDING TO PLACE OF OBSTRUCTION

English:

bilabial

labiodental

alveolar

median

back-lingual

post-alveolar [r, ʃ, ʒ]

interdental [ð, θ]

-

Ukrainian

bilabial

labiodental

alveolar

median

back-lingual

-

-

dental [д, т, л, л', н]

GROUPS OF CONSONANTS ACCORDING TO PLACE OF OBSTRUCTION

- bilabials: [p ,b, m, w], [п, б, в, м];
- labiodentals: [v, f], [ф];
- alveolar [d, t, z, s, n, l, tʃ, dʒ],
- [д', т', н', ц, ц', ч, ш, з, з', дз', дз, с, ж];
- median: [j], [й, р, р'];
- back-lingual [k, g, ŋ], [г', κ, x];
- glottal [h], [ɦ].

ARTICULATORY TRANSITIONS OF PHONEMES

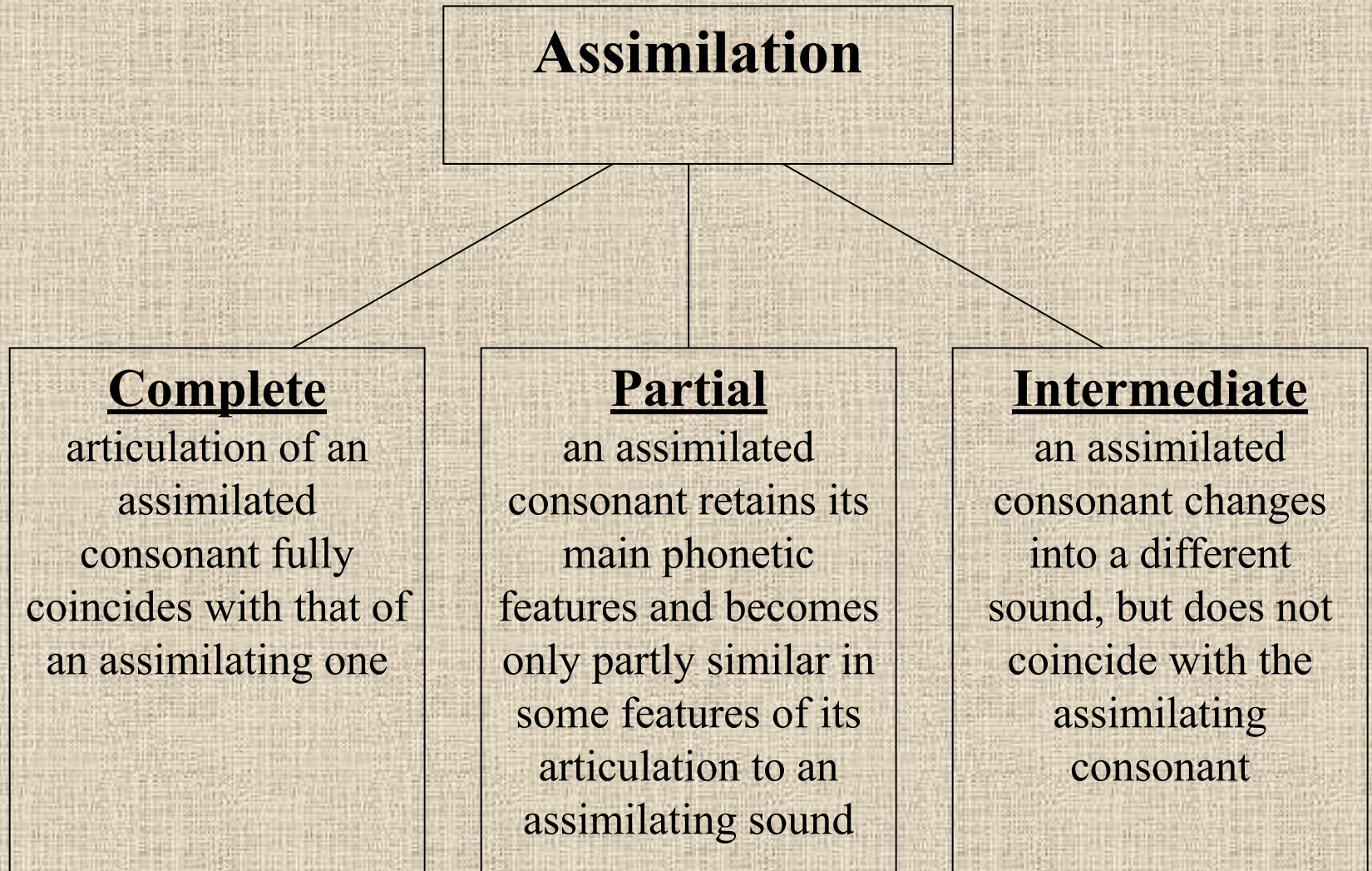
POSITIONAL	COMBINATORY
reduction	assimilation
	dissimilation
	accommodation
	haplology
	dieresis
	epenthesis
	metathesis
	substitution
	elision
devoicing (at the end of the words)	
prothesis	

- Assimilation – phonetic process of influencing two adjacent consonants within a word or at word boundaries.
- Result: the articulation of one sound becomes similar or identical with the articulation of the other one.

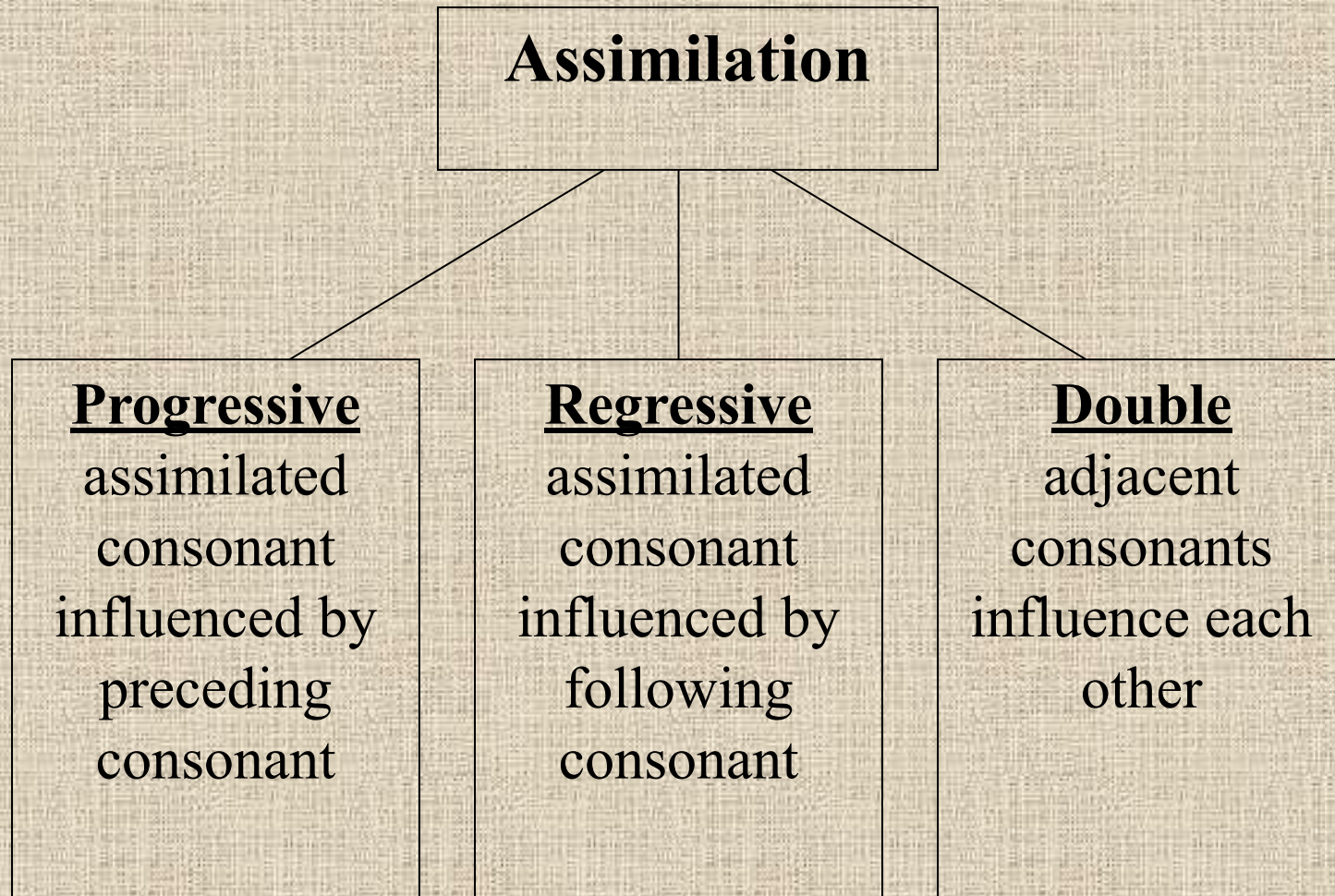
Assimilation affects:

- the work of an active organ: *congress*
- the point of articulation: *congratulate*
- the manner of noise producing:
let me as ['lemɪ]
- the work of vocal cords: *gooseberry*
- the lip position: *twenty*
- the position of the soft palate:
sandwich

DEGREES OF ASSIMILATION



TYPES OF ASSIMILATION



- **Devoicing** of the voiced consonants at the end of words is not typical of English.
- The English sounds [b], [d], [g] may be partly devoiced in some words.
- Typical of Ukrainian (*ди́д, дуб*).

- **Reduction** – phonetic phenomenon involving vowels in which they change their quality or even fall out when unstressed.

TYPES OF REDUCTION

REDUCTION

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graph TD; A[REDUCTION] --> B[QUANTITATIVE]; A --> C[QUALITATIVE]; A --> D[ZERO];
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QUANTITATIVE

reduction of
the length of a
vowel
observed
without
changing its
quality

QUALITATIVE

quality of a
vowel is
changed

ZERO

omission of
a vowel
or a
consonant

TYPES OF SYLLABLE

Depends on the stress	Depends on the initial sound	Depends on the final sound
<ul style="list-style-type: none">• Stressed• Unstressed	<ul style="list-style-type: none">• Covered• Uncovered	<ul style="list-style-type: none">• Close• Open

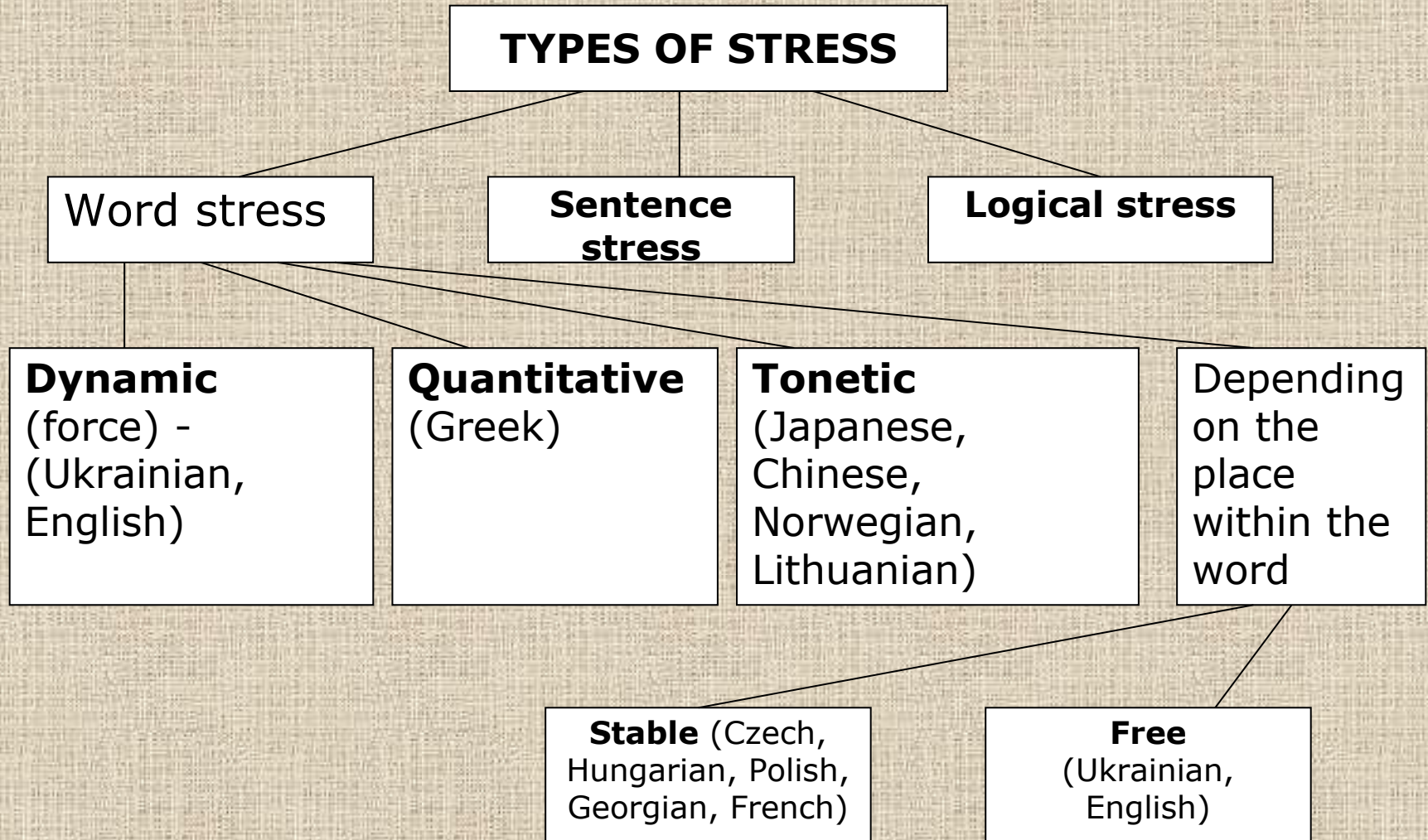
SYLLABLE

Syllables	English	Ukrainian
Open	<i>are, ear</i>	<i>араб</i>
Open covered	<i>we, play</i> 27 %	<i>ми, два</i> 66%
Close	<i>art, act</i> 73%	<i>ось</i> 34%

Word-stress

ENGLISH	UKRAINIAN
<p>English word stress – dynamic with a tonetic component.</p> <p>Free.</p> <p>English rhythm – stress-timed.</p>	<p>Ukrainian word stress – dynamic with a duration component.</p> <p>Free.</p> <p>Ukrainian rhythm –syllable-timed.</p>

TYPES OF STRESS



TYPES OF WORD STRESS

PRIMARY

English
Ukrainian

SECONDARY

English
falls on the syllable
separated from the
nuclear syllable by one
unstressed syllable:
pro_ˌnunci'ation,
ˌrecog'nition

WORDS WITH TWO STRESSES

ENGLISH

- Compound adjectives:
'well-'known,
'absent–'minded
- Composite (phrasal)
verbs *'get 'up, to 'give*
a'way.
- Words with prefixes: *un-,*
in-, dis-, sub-, ex-,
under-, re-

UKRANIAN

Optional cases:

за'гально'освітній,
ко'ристо'любивий

INTONATION

Intonation – a complex unity of speech melody, sentence stress, tempo, pausation, timbre.