# Word Stress in Chinese and Ukrainian Languages: Problems of Typology

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Abstract The article analyzes and compares the accent system of two typologically different languages, Ukrainian and Chinese. Comparative analysis of accent system of these provide the basic data to determine phonetic error also can help to prevent mistakes and facilitate general comprehension on a prosody level to which word stress belongs. It is important to emphasize that this study deals with word stress only in two-syllable Chinese words. Special attention is paid to the study of word stress in Chinese Language (Mandarin) for a Ukrainian audience. Ukrainian and Chinese languages represent different types of languages. Ukrainian belongs to Slavic group, and is a flectional type; Chinese belongs to the Sino-Tibetan family, and is an isolating syllabic type language. Phonetical system of these two languages is different, which is the main reason Ukrainian native speaker have trouble mastering the Chinese phonetical system. Improper application of word stress can render communication difficult or even impossible. Comparative research of these two phonetically systems can help in the development of studying materials based on the phonetic features of Ukrainian and Chinese. Thus, the aim of the article is, first, to determine accentrhythm system in Ukrainian and Chinese language traditions. Secondly, compare the word stress in different types of languages, namely flectional and isolating. Word stress helps to organize syllables into one language unit; this language unit has a certain accent-rhythm structure.

Keywords: Ukrainian language, Chinese language (Mandarin), accent, rhythm, tone.

### Introduction

Accent-rhythm structure (ARS) is a phonological feature that is absolutely individual in any language. [Tsiptsyura 2002, 25]. Ukrainian language has next definition: accent-rhythm structure – it is the ratio (relationship) of word syllables in time sequence, namely syllable gradation by length, strength and tension of articulation depending on a position in the word. [Visotskyi 1973, 19]. Concerning Mandarin accent-rhythm structure is quite new question. As Feng Shengli says: "..no stress, then no rhythm, no rhythm, then no accent rhythm structure.." [Feng Shengli 2009,17]. Compare the definition in both languages; we have all reasons to say that the concept "word stress" is different. The reason might be the different period of reaching word stress in Slavic Languages and Chinese. Another reason can be what Chinese language tradition calls stress, Ukrainian academics specify as "emphasis". Characteristics and concept of accentrhythm structure depends on a nature of stress. So what do we call stress? Stress is accentuation of syllable in a word by rising voice or increasing tone (pitch) [Dictionary of Ukrainian Language 2005, 708]. In phonetics all units are diveded into segmantal and supersegmental. Segmental are those which can be emphasis in the speech, such as sounds, syllables, phonetic words, syntagmas [Kirvosova 2010, 4]. Supersegmental units (intonational) are those which implicate on segmental, such as: stress, pause, intonation, tone [Kirnosova 2010, 4]. There are several types of stress: word, syntagma. Depending on semantics, distinguish emphatic and logic stress. Stress forms from changes of intensivity, sound length, resperitory muscle preassure, incrising of exhale length [Dictionary «Linguistics», 530]. The precise effect of stress in language specific, its role is invariably to alter pronunciation (e.g. road -дорога dear – дорога), thus a significative role.

Ukrainian language has a long history of development, during which grammatical, lexical, and the most important phonetical level of language has been changed. The first scientific description of phonetic can be found in the book of Viennese scientist F. Mischkolc "Verleiehende Lautlehre der Slavischen Sprachen" (1852) [ Bezvenko 1991, 168].

As Tsiptsura showed, difference between stressed and unstressed syllables in Ukrainian is differ from other Slavic languages, namely in Ukrainian phonetic word structure is less dependent on press. No matter the pisotion in the word ukrainian unstressed vowels remain (like save meaning) their main quality, which is in the absence of qualitative reduction of unstressed vowels [Tsiptsura 2001, 26]. In Ukrainian language all 6 phonemes function under the stress /i/, /a/, /o/, /e/, /y/, /w/¹ namely there is no phoneme changing /o/ $\rightarrow$  /a/, /e/ $\rightarrow$  /i/, as in Russian.

As Toc'ka Nina showed, word stress in quantitative in Ukrainian language to the extent that the length of the vowel in stressed syllables is longer than the length of unstressed vowels [Toc'ka 1981,136-137]. In Ukrainia language the length of the stressed vowels can be explaned due to strong respiratory muscle preassure. Amplitude of vocal energy can be a features of word stress in Ukrainian language, often it ocurs after 1 or 2 syllables of stressed and unstressed sounds, for exp. голова (head), молодиця (young lady). Word stress is free in Ukrainian, it can be impicated at any syllable, so can change his position. For example, сестра (sister) - сестри (sisters), нога (leg) – ноги (legs), весна (spring) – весни (springs). In other word forms word stress can be the same, unchangable, for exp. мама (mother) – мамі (for mother), книга (book) – книзі (in book). From these examples we can say that word stress can help to differenciate words meaning so plays distinctive function.

No matter of such word stress chaotic position, which is connected with word formation, word meaning. Word stress in Ukrainian plays constative, identificative, differencial roles.

Chinese language differs from Ukrainian not just with writing system, a also phonological system. Concerning asian languages E.Polivanov says: «stress, which is based on the high of picth (namely quantity of vocal cords vibration frequency) can be called tonal assent or music accentuation [Polivanov]. From Polivanov's definiton we can assume academic assimilate tone and word stress in Chinese language. We suppose that tone and word stress are different concentions and they separetly exist and function in such isolating language as Mandarin. It is easy to prove, as in two syllable words stress can applicate only on one syllable, but tone is one each syllable.

Chinese philologist Duanmu San in his articles showed that as a rule, in chinese language emphasize syllable is longer one, and stress is used to emphasize the meaning of the word, but nature of stress is still unknown (been question) [Duanmu San 2007, 2]. The position of the stress in not predictible, so learners need just to remember it. Duanmu San showed, word stress in Mandarin in connected with intensivity [20011, 18].

We think that in Chinese, word stress is conneted with syllabema (syllable), which carries the ton. And word stress doesn't have any connection to syllable which does carry tone. Syllabema, which doesn't carry tone is weak, can be called «extrametric» <sup>2</sup>( only inicial and final can be extrametric). In his PhD dissertation Shi Baohui showed that word stress in Chinese language has following rules: 1. Syllabem, which carries the tone forms yambic foot.<sup>3</sup> 2. Syllabema, which doesn't carry the tone is extrametric to syllabema which carries the tone. 3. Syllable with long vowel (for ex./a/), due to length can itself form foot, which is naturally stressed. 4. Foot can exceed word boundary. 5. In word some vowels are stronger than others due to such linguistics feathures as logic stress, emphasis, emotions [ Shi Baohui 2004,19].

To compare word stress in Ukrainian and Chinese languages we need to identify the following:

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<sup>&</sup>lt;sup>1</sup> There are several concepts about phonemic system of Ukrainian language. But we follow Toc'ka N.I., who says there are 6 vowels phoneme in Modern Ukrainian language. See Toc'ka N.I. Modern Ukrainian language, Kiev, 1981, pg.33.

<sup>&</sup>lt;sup>2</sup> extrametrical - definite correlation of stressed and unstressed syllables. See Metrics and phonological theory" (1988) in Frederick Newmeyer, ed., Linguistics: The Cambridge Survey. Cambridge: Cambridge University Press, pg.233.

<sup>&</sup>lt;sup>3</sup> yambic foot (from old Greek αμβος, αμβύκη the name of musical instrument) – syllabic-tonic versification, which consists of two syllables, where the second syllable is stressed. See The Etymological Dictionary of Ukrainian language, Kiev, 2005, pg,1648.

#### I. Nature of word stress

In Ukrainian language word stress it is dymanic; in Chinese language the tonal system plays phonological role, which has 4 tones.

#### II. Position of the stress in the word.

In Modern Chinese language word stress doesn't have certain position, for ex. 聪明 congming (clever), 忘记wangji (forget) – during the speech the first syllable is stressed, 汽车 qiche (car), 思想 sixiang (way of thinking), 手表 shuobiao (watch). We have all reasons to say that syllables that are pronounced longer are understood as word stress. Learners of Chinese should focus not only on tones but also to pay attention to stressed syllables.

In Ukrainian language word stress can be at any syllanle, for example, вода (water), (рука) hand during the speech the second syllable is stressed, мама (mother), птаха (bird) – during the speech the first dyllable is stressed, говорити (to talk), співати (to sing) – during the speech the 3 syllable is stressed.

## III. Quaility of stress

As Speshnev previously showed there are four possible levels of word stress in Chinese language [Speshnev 1980, 74-75]:

- 1. hard stressed syllable and unstressed: 干净 ganjing (clean) , 爸爸 baba (father);
- 2. hard stressed and weak stressed syllable: A) first syllable weak, second hard stressed: 再见 zaijian (good bye), 商店 shangdian (store), B) first syllable is hard stressed, second is weak: 学生 xuesheng (student), 朋友 pengyou (friend);
- 3. weak syllable and hard stressed syllable: 食堂 shitang (canteen);
- 4. two equaly stressed syllables: 大小 daxiao (size), 长短 changduan (length).

The most common is first (hard stressed syllable and unstressed) and third (weak and hard stressed syllable) types.

# IV. Word Stress Functions

Among word stress functions (morphological, lexical) very important one is differencial (word distinctiveness), where word stress helps to differentiate lexical units, for ex. in Ukrainian замок (castle) – замок (lock), in Chinese 等等 dengdeng (wait) — 等等 dengdeng (and so on).

#### Conclusion

Ukrainian audience learning Chinese language clear feel the difference between word stress and emphasis in Mandarin, because Ukrainian students do not pay sufficient to difference between word stress in Chinese language and their mother tongue language.

Consequently, Ukrainian students of Chinese often unwittingly aply stress in accordance with the conventions and patterns found in their mother-language. This is serious mistake, which often leads to complete misunderstanding during communication with native speakers of Chinese.

To overcome these difficulties and master Chinese we offer following:

- 1. in details to study the meaning of tone and stress;
- 2. to pay attention on pecularities of word stress which are present in Ukrainian and are absent in Chinese;
- 3. to mark word stress in Chinese dictionaries, as a mark we offer ('). It is pretty hard to choose suitable mark, due to tonal system in Chinese.

Ukrainian and Chinese languages are different in many ways, but there have in common.

In the end we would like to pay attention that this study of word stress in general is not enough and needs more careful research, because word stress is extremely important as in Ukrainian the same in Chinese languages.

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