
A Comparative Study of Word Stress in Persian and Urdu Language

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Abstract:

This paper attempts to study the word stress patterns in Urdu and Persian language comparatively. For this purpose, previous research works over Urdu and Persian word stress are taken into consideration. Important features of both languages' word stress are analyzed through the previously done research works. In the end a conclusion is drawn on the basis of the comparative study regarding similarities and dissimilarities in Urdu and Persian word stress.

Key words: Word stress, syllable stress, syllable structure, moraic weight, extrametricality, headedness at foot level, headedness at word level, boundedness.

Introduction

Persian and Urdu are considered to be quite similar to each other. This assumption is based on the fact that a large vocabulary of Urdu is borrowed from Persian language. Both languages fall under the group of languages called Indo-Iranian Languages. Having long historical ties, both of the languages share a great degree of similarities in respect of their writing script, vocabulary and pronunciation. But the basic motivation behind this research paper is to explore the similarities and

differences in word stress pattern of both languages. In linguistics, stress is the relative emphasis that may be given to certain syllables in a word, or to certain words in a phrase or sentence. The term is also used for similar patterns of phonetic prominence inside the syllables. The word accent is sometimes also used with this sense. The stress placed on syllables within words is called word stress or lexical stress, which is going to be the main topic of discussion in this study.

Literature Review

Syllable stress is an important feature of many languages. It is realized in various ways in different languages of the world. According to Lars O Dyrud, "Fundamental frequencies (F0), duration and intensity are often common correlates of syllable prominence".

In Urdu, the simplest way of stress assignment in Hindi-Urdu is explained by Hussain (1997). Hindi-Urdu is an Indo Aryan language. Although Hindi and Urdu are different languages yet they share similar behaviour in many phonetic aspects. Masica's (1991) view about Hindi-Urdu is that they are different literary styles based on the same linguistically defined sub-dialects. Hindi-Urdu falls in the group of NIA languages so they are mora times rather than stress timed. Stress in Urdu is also marked by the syllable weight. The syllable having the heaviest weight from right to left is marked as stressed. Hussain (1997) in his study of Urdu stress correlates lists the effects of stress.

1. The results indicated a longer duration and lower F0(due to alignment of a low tone)for stressed vowels.
2. Also high vowels got less intense and low vowels got more intense with stress.
3. The quality of the vowel changed with stress or unstressed vowels.

4. The closure, voicing during closure and aspiration on onset stops increased with stress.
5. The duration of closure of aspirated coda stops decreased with stress. Much work has been done on Persian stress. Chodzko (1852) was the first linguist who discussed Persian stress in detail. According to Chodzko (1852) the stress on final syllable in simple, compound nouns, adjectives and in nominal verbs. For different verb tense, different rules are applied. "It is certainly safe to say that in modern. Persian the verb has recessive stress. This is in sharp contrast with the noun where the stress tends to be near the end of the word", Ferguson (1957, pp 26-27) Another findings on

Arsalan Kahnemuyipour has discussed Persian stress patterns (2003). He states, "Persian stress is assigned rightmost at the phonological word level, left most at the phonological phrase level, right most at the intonational phrase level and left most at the utterance level." Majid Hayati in his research "A Contrastive study of English and Persian stress says, "it is widely agreed that in Persian ,stress is predominantly on the final syllable of single word."

Stress in Urdu

The stress in Urdu is not fixed as it is in other languages. The location of stress in Urdu is marked according to the weight of a syllable. The syllable having the heaviest weight moving from right to left is marked as stressed syllable in a word.

WORD	SYLLABLE STRUCTURE	MORAIC WEIGHT
tə.la'ʃ	cv.vvc	1.2
a.ba'.di	vv.cvv.cvv	2.2.1

There are two major types of stress primary and secondary stress. In Urdu we find only the primary stress. No secondary stressed syllables are present. For example

Word	MORAIC WEIGHT
fas'.le	3.1
xʊf.gə.var'	2.1.2
bər.daʃt'	2.3

The weight of vowels and consonants is represented by mora. We can say that mora helps us marking the stress in Urdu. Short vowels and coda consonants are mono moraic and are represented by "u". Long vowels are bimoraic and are represented by "u u". Long vowel and consonant are tri-moraic and are represented by "u uu". The weight of the onset is not calculated. In Urdu, the stress is marked only by calculating the weight of rhyme of a syllable.

WORD	MORAIC WEIGHT
bəl.va'.na	uu.uu.uu
əf.ʔa.nis.ʔan'	uu.uu.uu.uuu

The final mora of the last syllable in a word is not calculated in the weight. This is called extrametricality.

WORD	MORAIC WEIGHT	EXTRAMETRICALITY
ab'.jar	3.3	uuu.uu<u>
ʔt.e.had'	3.2.3	uu.uu.uu<u>

Approximately 80% of the Urdu words follow this stress algorithm but 20% behave differently. When affixes are added, the stress patterns deviates from the algorithm. For example in a word " af.rid'.gar ", the stress is on "rid" not on "gar". Although "gar" has moraic weight of 2 but "gar" is a suffix so stress shifts to the left. It is seen that affixes are treated separately from the root. Root will always has a stress mark but affixes may or maynot bear the stress like in "ab'.doz' ".

In some cases, two stressed syllables are observed like in the example "ab'.gi'.na ".Here both the prefix and the root are stressed. Compound words also show different stress pattern. As compound words are a combination of two words so both the

words are stressed and bear a primary stress mark. For example "pə.let' fa'.rəm" and in "bə.læk' bord'.

As stress is marked on the basis of weight of the syllable but there are some exception too. Some words contain multiple stress marks without any consistent pattern. It is observed that native speakers assign stress to a syllable which have the plosives /b/ ,/p/, /d/, /d̪/, /t/, /t̪/, /g/, affricates /dʒ/, /tʃ/, trill /r/, and fricatives /s/, /z/. For example in words like "tər.'bə.tər' ", "bə'.bu' a ". Long vowel also violates the rule of single stress in a word. Long vowel become more prominent in a word hence becomes stressed. Like in words "e'.ti.laf' " and "pu'.r ə m.pur' ". But in some cases the stress is on alternate syllables like in words "aes.o'.si.e'.ʃən" and " tər'.tə.ra'.hət."

Stress in Persian

It is an observed and proven phenomenon that when Persian words are spoken in isolation, the strongest stress falls only on one syllable and other syllables stay unstressed. Moreover, this one and only stress tends to fall on the final syllable. To understand it thoroughly, here are some of its examples:

Ketab' (book) ziba' (beautiful) madær' (mother) name' (letter) mosâbeqe' (competition) divune' (crazy)

But there are certain exceptions to this rule one it comes to the addition of inflectional endings, infinitives of verbs, some suffixes etc. When these words are added to dictionary as simple words, there occurs a shift of stress, for example:

mi'-ræv-æm (I go) (*verb*) ketab-ha' (books) ziba-tær' (more beautiful) name-ræsan' (mail man) kitâb-í (bookish) xaríd-am (I bought) (*verb*)

From this above mentioned picture of irregularities in stress pattern of Persian at word level, one thing comes to the surface that adjectives and nouns tend to have regular stress pattern that is at the end of the word, for example: mu' (hair) xub' (good) divune' (crazy).

But when it comes to derivational suffixes, there is an altogether shift in the stress pattern. In Persian, derivational suffixes takes the stress, for example:

ketab-í (my book) bozorg-tár (bigger) divune-gí (craziness)

Another feature of Persian at the level of compound words is that the stress here also falls on the final syllable as a compound word is taken as one word. Here are some of the examples of this category: ketâb-xune' (book-house) bozorg-menésh (great-attitude) bad-báxt (bad-fortune)

And so, overall it can be concluded that in Persian final syllable is the stressed one on word level. Verbs in Persian, as mentioned through examples in the beginning, tend to show inconsistent attitude of stress depending on their inflectional categories but those are not part of the discussion here as it becomes a phrase level phenomenon.

Role of Metrical Phonology in Stress Assignment in Urdu and Persian

There are six parameters proposed by Goldsmith (1990) for assigning stress patterns. With the help of these parameters one can recognize stress algorithm of any language. These parameters also play a vital role in assigning stress pattern in Urdu and Persian languages. As the overall picture of Urdu and Persian stress has been made clear above, so following is the discussion on both Urdu and Persian stress assignment with reference to those six parameters by Goldsmith;

1. BOUNDEDNESS

There are said to be bounded if it contains binary feet. Both Urdu and Persian are unbounded stressed languages as it has only primary stress and no secondary stress for example "ab'.ru", "a.baḍ'.i" (Urdu) "Ketab'", "ziba'" (Persian).

2. QUANTITY SENSITIVE

The languages, in which weight of the syllable plays an important role are quantity sensitive languages. In fact stress is determined on the basis of weight of the syllable. Urdu is a Quantity sensitive language as stress is assigned on the basis of the weight of a syllable. Quantity sensitive languages are always unbounded .e.g " a.xi'.rt" and the weight is 2.2.2.

On the other hand Persian is not a quantity sensitive language. In Persian stress at word level is always fall on the last syllable of a word, for example: mosâbeqe' (competition) divune' (crazy).

3. HEADEDNESS at FOOT LEVEL

There are two possibilities for foot headedness. One is right headed and the other is left headed. In the right headed foot the rhyme on the right side is stressed ad in the left headed left most rhyme is stressed. As Urdu is unbounded language with no feet so headed at foot level cannot be determined.

But in Persian language the headedness at foot level is always consistent as the stress is bound to fall on the last syllable and so it is right headed at foot level.

4. HEADEDNESS at WORD LEVEL

The headedness at word level is either left or right. The one which has the primary stress on the left foot is left headed and the one having primary stress on the right foot is right headed. In Urdu stress position is not fixed so headedness at word level is inconsistent but in Persian as the headedness of the foot is always right, so it is always right headed at word level as well.

5. DIRECTION of FEET FORMATION

The direction of feet formation can be right or left. As Urdu is quantity sensitive and unbounded stress language so the direction of feet formation is unpredictable but according to Hussain (1997) in Urdu the direction of the weight assignment

is from the right side so according to this direction of feet formation in Urdu is from right side.

It is similar with Persian as well, because it is found consistent with having right headed on both foot level and word level so it is also found consistent having right to left direction of feet formation.

6. EXTRAMETRICALITY

In Urdu, the last syllable of the word is extrametrical. The last mora of the final syllable of the word is not included in the total weight of the syllable. For example if the last syllable is VC and moraic weight is "u u". After excluding the last mora the moraic weight will be "u". The examples in Urdu are as follows.

WORD	EXTRAMETRICALITY
in.t.za'.mi	uuu.u.uuu.u<u>
dər.mi.jan'	uu.uu.uu<u>

Whereas, in Persian the feature of extrametricality is not found at all, because of its consistent property of stress assignment only on the final syllable.

Conclusion

From the above comparison and contrast of Urdu and Persian in Metrical Phonology section, it can be concluded that the word stress patterns of both languages share lesser degree of similarities and more of differences. Though both languages are unbounded, having only primary stress, but when it comes to other features, there comes a wide variety of differences. Urdu's word stress is inconsistent but Persian's is consistent one as it always fall on final syllable of the word. Basing on this feature, Urdu's headedness at word and foot level is not predictable but Persian's is predictable because having stress on final syllable. Furthermore, Urdu is a quantity sensitive language as weight plays an important role in assignment of the stress while this is not the case with Persian. Going further to the extrametrical

feature, here again both languages show different attitude. Urdu has extrametricality, while Persian do not have. Stress is assigned depending on this extrametrical feature from right to left, in Urdu language and so is the formation of the feet is also determined as right to left. Though Persian language's feet formation is also right to left but it do not depend on the feature of extrametricality. Hence, Urdu and Persian can be called partially similar and dissimilar to each other.

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