# **Stress Alternation of Compound Words in Pashto**

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#### **Abstract**

Pashto, an Indo-Iranian language mainly spoken in Afghanistan and Pakistan, is a stress accent language. Although the stress marking in Pashto generally occurs to function as a lexical marker, for the compound words, the stress alternation occurs in accordance with different rules. Thus, this paper, based on the data elicited from a male native speaker of Pashto, discusses the pattern of stress alternation for the compound words in Pashto. The paper first discusses the left dominant rule which governs the stress alternation of the compound nouns and adjectives. Followingly, the stress alternation of the compound verbs is discussed, which the primary stress, unlike the compound nouns and adjectives, is carried by the right element.

#### 1 Introduction

Pashto is an Indo-Iranian language that the majority of native speakers mainly distribute throughout Afghanistan and Pakistan. The estimated number of speakers of this language is from 30-50 million (Austin, 2008).

The accent of this language is conveyed by stress. According to Shafeev (1964), the stress marking in Pashto implies the meaning differences. The stress is associated with a particular affix or a syllable depending on the lexical meaning of the word.

However, it is unclear whether this manner of stress marking also applies to compound words as well. The accent of a compound word, cross-linguistically, shows mainly two patterns: either the stress pattern of the left element or the right element is preserved. For example, the *blackboard*, which is a compound word of *black* and *board*, has stress marking on the right element *black*. Thus, English compound words follow a right dominant rule. Since this alternation differs by language, this paper intends to discuss the stress alternation pattern of compound words in Pashto.

### 2 Data Collection

The data was collected in person through multiple sessions with the native speaker of the Northern dialect of Pashto. The participant is from Peshawar city, where he was born in the 1980s. His native language is Pashto. However, throughout his education at school, lectures were mainly conducted using Urdu, and at university the medium of instruction was English. Although he used Urdu and English as a means of communication through academics, he still uses Pashto with his family and friends on the daily basis.

### 3 Pashto Compounding

The formation of compound nouns differs in accordance with its part of speech, as well as its stress pattern. The stress pattern, in particular, is distinct between compound nouns/adjectives and compound verbs. This section describes the formation of compound words and discusses their stress pattern.

- **3.1** Compound Nouns/Adjectives This section discusses the stress alternation on compound nouns and adjectives. As described in 3.1.1, the formation of each type of compound word slightly differs in terms of its method. However, compound nouns and adjectives share the same stress alternation pattern, as discussed in 3.1.2.
- **3.1.1** Formation of Compound Nouns/Adjectives Before discussing the stress alternation in Pashto, let us review the formation of compound nouns and adjectives in Pashto.

Compound Nouns in Pashto are generally created by fusing two nouns together as shown in (1).

#### (1) Compound nouns in Pashto

a.	mar +	mahe	$\rightarrow$	marmahe
	Noun	Noun		Compound Noun
	'snake'	'fish'		'long fish'
b.	shar +	makh	$\rightarrow$	sharmakh
	Noun	Noun		Compound Noun
	'to cause disturbance'	'cheek (face)'		'predatory animal'

The above example shows that in Pashto, the left element of the compound describes the right element of the compound. For example, in (1a), the compound noun *marmahe* stands for 'long fish', in other words, 'fish that is like a snake'. Since the compound consists of the left element *mar* 'snake' and the right element *mahe* 'fish', it is clear that the right element modifies the right element.

On the other hand, the compound adjective is formed by combinations of adjectives, nouns, and sometimes adjectives making suffixes (Akbal et al., 2017). The ordering of morpheme differs by each compound word, that is, Pashto allows compound words with Adjective + Noun and Noun + Adjective. There is no particular format of the ordering of Adjective and Noun for compounding. (2) are some examples of Pashto compound adjectives.

### (1) Compound adjectives in Pashto

a.	spin Adjective 'white'	+	Noun 'eyes'	$\rightarrow$	spinsterge Compound Adjective 'rude'
b.	zyar Noun 'yellow'	+	makh Noun 'face'	<i>-i</i> → AdjSuf	zyarmakhi Compound Adjective 'pale faced'

**3.1.2** *Stress Alternation on Compound Nouns/Adjectives* Although the formation differs, the stress alternation pattern is the same. Let us consider the following examples in (3).

### (3) Stress Alternation of Compound Nouns/Adjectives

a.	ma:r 'snake'	+	mah <b>é</b> : 'fish'		$\rightarrow$	má:rmahe: 'long fish'
b.	s <b>a</b> ŋ 'stone'	+	saːr 'rain'		$\rightarrow$	sáŋsaːr 'rain of stone'
c.	sp <b>i</b> n 'white'	+	sterg <b>é</b> 'eyes'		$\rightarrow$	spinsterge 'rude'
d.	b <b>a</b> d 'bad'	+	kísmat 'luck'	-a AdjSuf	$\rightarrow$	b <b>á</b> dkismata 'unlucky'

Since the left elements in (3) are all one-syllable words, they do not have stress when in an isolated utterance. However, when we look at the compound form, the stress is always on the left element, that is, the stress on the right element is dropped. Therefore, we assume that the Pashto compound nouns and adjectives are governed by a left dominant rule in which the stress of the left element is preserved.

This left dominant rule applies even if there is a stress-attracting affix attached to the compound word. See (4).

### (4) Plural Formation of Compound Nouns

a.  $ma\chi \rightarrow ma\chi - \acute{a}n$  'cheek' 'cheek (plural)'

b.  $\int \acute{a} r m a \chi \rightarrow \int \acute{a} r m a \chi$ -an 'predatory animal' 'predatory animals'

In (4a), the plural suffix -an is functioning as a stress-attracting affix in makhan 'cheeks'. However, when looking at the plural form sharmakhan 'predatory animals' in (4b), it is shown that, although the plural suffix is attached, the stress still lies on the left element of the compound noun. Thus, we assume that the left dominant rule of the compound noun is dominant over the stress attracting affix in Pashto.

- **3.2** Compound Verbs Distinct from compound nouns and adjectives described in section 3.1, compound verbs show different stress alternation patterns.
- **3.2.1** Formation of Compound Verbs The compound verbs in Pashto are formed by combining a positional noun with a verb. See (5).
- (5) Compound Verbs in Pashto

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a. nana + watal \rightarrow nanawata

l'inside' 'go out' 'enter'
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- **3.2.2** Stress Alternation of Compound Verbs In terms of stress alternation, the Pashto compound verbs show a different pattern from compound nouns and adjectives. Zsiga (2013) notes that the distinction of stress pattern between the lexical category is common cross-linguistically. Here, the left dominant rule does not apply. See (6).
- (6) Stress Alternation of Compound Verbs

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a. nána + wat\lambdal \rightarrow nanawat\lambdal b. pre + wézəm \rightarrow prewézəm c. ter + wátəm \rightarrow terwátəm
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Here, the stress on the right element is preserved. Since the right element of a compound verb is the stem verb, it is assumed that when creating compound verbs, the stress is attracted to its stem.

- **3.2.3** Lexical Stress Alternation on Compound Verbs In Pashto, the verb stress alternation also implies the semantic alternation of the word. See (7).
- (7) Lexical Stress Marking

a.	nanawatál	'enter'	Imperfective Verb
b.	n <b>á</b> nawat∧l	'have entered'	Perfective Verb
c.	n <b>á</b> nawat∧l	'(action of) entering'	Derived Noun

Here, for the imperfective form (4a), the stress is carried by the stem verb *watal*. On the other hand, the stress alternation shifts to the left element *nana* when the verb either is a perfective form or derives into a noun.

# 4 Conclusion

This paper discusses the stress alternation of compound words in Pashto. The compound nouns and adjectives, although differ in terms of their formation, have their stress marking assigned to the left element of the compound, that is, the language is governed by a left-dominant rule. However, the left dominant rule does not necessarily apply to the compound verbs. The compound verbs carry the stress on the right element of the compound, that is, the stem verb of the compound verbs. The compound verbs also show some lexical stress alternation as same as regular verbs in Pashto.

This paper discusses the general pattern for stress alternation. However, in order to know whether the stress alternation pattern derives depending on the phonological/morphological condition of the compounded morphemes, more data elicitation is required. In addition, since this paper only focuses on primary stress, more research is needed to define the alternation pattern of secondary stress.

# 5 Appendix

### 1. Compound Noun

Word	Gloss	Word	Gloss
máːrmaheː	long fish	∫ĭ:r-mahe:	lion fish
rónd-mahe:	blind fish	sáŋ-saːr	rain of stone
ſármaχ	predatory animal		

# 2. Compound Adjectives

Word	Gloss	Word	Gloss
zjár-larg-i	spice	spín-sterge	rude
spék-dast-a	slim	zjár-maχ-i	pale-faced
bád-kismat-a	unlucky		

# 3. Compound Verbs

Word	Gloss	Word	Gloss
nanawatÁl	(I) enter (intransitive)	nanakól	(I) put in (transitive)
nanabasəl	(I) put in (transitive)	prewəzəm	(I) lie down
prebásəm	(I) relocate	pregdém	(I) leave, let
prekóm	(I) cut	terwátem	get deceived
terbá:səm	deceive		

# 6 References

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