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**RESEARCH PAPER****Punjabi Adjectives: A Morphological Perspective**

<sup>1</sup> Muhammad Farukh Arslan\* <sup>2</sup> Prof. Dr. Muhammad Asim Mehmood and <sup>3</sup> Aisha Kanwal

1. PhD Scholar, Department of Applied Linguistics Government College University Faisalabad, Lecturer NUML Fsd Campus, Punjab, Pakistan
2. Chairperson Department of Applied Linguistics Government College University Faisalabad, Punjab, Pakistan
3. Master in English, Department of English University of Agriculture, Faisalabad, Punjab, Pakistan

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\*Corresponding Author Farukh.arslan@numl.edu.pk

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**ABSTRACT**

The purpose of this research was to conduct a morphological analysis of adjectives in Punjabi language by employing the theory of distributed morphology. The study intended to identify the prefixes, suffixes and morphemes involved in the formation of the adjectives and to determine the pattern, how adjectives inflect for number and gender. Morphology is a vital aspect of linguistics, and the basic understanding of the morphological structure of a language is crucial for delving into syntax and semantics. This research focused specifically on the morphological analysis of adjectives in Punjabi, a language with rich morphological patterns. A corpus of Punjabi language was collected and tagged to extract the list of adjectives. The theory of distributed morphology was employed for morphological analysis. Patterns of prefixes, suffixes and the morphemes were identified to understand how adjectives are formed in Punjabi. The analysis revealed key morphemes such as لا، ده، يائے، ی، وی (la, deh, nay, ya and vi) as well as important prefixes and suffixes in the formation of adjectives. Adjectives were found to inflect for number and gender and displayed the agreement with nouns. Further research can explore the semantic nuances of these morphemes and their role in adjective formation in different syntactic contexts. Additionally, the pedagogical implications can be drawn for teaching Punjabi morphology and syntax to the first and second language learners of Punjabi language.

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**KEYWORDS** Adjectives, Distributed Morphology, Prefixes, Shahmukhi Punjabi, Suffixes

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**Introduction**

The process of word formation in any language is related to the field of Morphology. Plag (2002) termed word formation as the process of creating new lexical items from already existing words. It contains the addition and division of phonic aspects. Bauer (1983) stated that the complex lexemes are generated through this process. Punjabi possesses engrossing morphology including the inflectional and derivational morphemes which change the form and derive new vocabulary items. It happens through the process of affixation.

Inflections may help to pluralize any noun, but the derivational morphemes create new word from already existing words. Derivational morphology includes the morphemes which are termed as class maintaining and class changing morphemes (Yule, 1996). Studies conducted in the past differentiate the sub-types of the Punjabi morphology; researchers

stated that the inflections are commonly used suffixes, which exhibit the linguistic ties between the tense, person and number (Pal, Ahuja, Bansal & Kumar, Sharma, 2010).

Punjabi has not received much attention on the level of Morphology, bundle of research have been conducted on morphology of English, Hindi, Sindhi and Urdu but the Punjabi morphology is still kept in the dark. Total sixty nine 69 languages are spoken in Pakistan; Punjabi is among 6 major languages spoken in Pakistan. It is written in two different scripts in India and Pakistan. Gurumukhi script is used by Indian on the other hand Shahmukhi script is employed by Pakistani writers of Punjabi language. Gurmukhi Punjabi is close to Sanskrit whereas the Perso-Arabic script has a major influence on Shahmukhi script.

Punjabi is termed as syllable timed language, as (Schneider, 1997) explained that most of the Asian languages are syllable timed languages are European languages are stress timed languages. It consists of 41 consonants known as vianjans, 9 vowel called matras and 2 phonemic symbols for nasal sounds (Meenu, 2007; Rupinderdeep, 2010; Gill & Gleason, 1969). Malik's (2006) argued that there are 65 phonemes in Punjabi including 49 consonants and 16 vowels is different from Meenu's claim.

Arslan and Mahmood (2021) conducted the study on the idea of sound shift in Punjabi language. The study highlighted number of sounds which are shifting from its original pronunciation due to the influence of other languages as the first language. The study concluded that this sound shift may lead towards sound extinction and language death.

Islam (2011) conducted study on the morphology of loanwords in Urdu. In this research, researcher described loan affixes help to change categories. Firstly, Islam's work was in Urdu but the study dealt with the formation of Punjabi nouns from other open class words; nouns, adjectives, adverbs, verbs by employing the approach of derivation.

Hussain, (2018) conducted the study on nominal markers of Punjabi nouns. The study found out various patterns which play vital role in the formation of nouns. Study also found out patterns of derivational and inflectional morphemes attached with the nouns.

Various studies are found on the idea of morphology but the morphology of Punjabi language is addressed by very few researchers, furthermore the morphology of Punjabi adjective is one of the aspects which still need to be explored. This study contributes to the morphological patterns of Punjabi adjectives.

In this particular study different patterns of formation of adjectives are studied and explored. This study also gives the examples of prefixes and suffixes joined with the words to form adjectives. Theoretical frame of attributive morphology is adopted in this study to analyze the patterns of adjectives of Punjabi language. Theoretical frame of distributive morphology is employed for the analysis.

## **Literature Review**

Lexical categories of a word are defined by the role it plays and the position at which it exists. According to Sood, et al (2015), Punjabi has 11 word classes. All these sub classes of words can be studied and analyzed under the field of morphology to find out what kind of role those words perform in a language and how the words in a particular category are formed and produced.

Morphology is the study of word form. It supports to understand the rules direct the structure of complex words (Bauer, 2003). Aronoff and Fudeman (2005) termed morphology as a mental state engaged in the activity and process word formation. Morphemes are termed as the smallest building blocks of morphology carrying a lexical or grammatical meaning (Booji, 2005). Lyons (1979) describes morpheme as “the minimal unit of grammatical analysis in all languages”. Thus, the word undressed consists of three morphemes {un}-{dress}-{ed} because all these chunks are separate units carrying meanings. A morpheme can be a word or further part of a word.

Nida (1949) discussed it in two major categories”, free morpheme and bound morpheme. Free morpheme can stand at its own and carry the meanings but the bound morpheme needs another entity to preserve a meaning, it cannot be a part of any grammatical construction individually. Such as the word **بے گھر** /beghar/ here in the word **ہے** /be/ is bound morpheme which needs to be attached to convey its meanings.

Inflectional morphemes change the form of a word according to its specific grammatical context (Lieber, 2009). Such as the word **چنگا** /change/, **چنگی** /changi/, **چنگے** /changay/ and **چنگیاں** /changian/ are the different variations of same word. The basic meaning remains the same these morphemes attached at suffix position help in creating different words within that same grammatical category of words.

Inflectional morphemes do not change the category of the word. These morphemes are not separate words rather are variants of same lexeme. Lexeme is dictionary demonstration in which affixes adds only a little grammatical meaning to fit in the context. These words do not have separate entries in dictionaries rather it is assumed that the speakers of a language are aware and understand the use and difference.

Arslan, Mahmood and Rasool (2020) studied the derivational morphemes of English language across native, second and foreign language speakers of English language through ICNALE date. The study found variations in the patterns of usage of morphemes across all three varieties of English language and recommended different patterns which must be incorporated in the pedagogical activities.

Arslan, Mahmood, Shoaib, Idrees and Tariq (2023) conducted the analysis of morphological patterns of nouns in Shahmukhi Punjabi. The analysis revealed that nouns inflect for number and gender and showed same pattern of complementation among adjectives and nouns. The study revealed various patterns for forming plural nouns in both of the genders, and also for deriving nouns from the adjectives and vice versa. Additionally, the study also revealed the patterns of noun derivation from the adverbs.

Derivational morphemes on the other hand can change the part of speech of a word or can change the meanings of the whole word from the root. Bauer (2003: 14) differentiated “an inflectional affix is one that produces a new word-form of a lexeme from a base. A derivational affix is one which produces a new lexeme from a base”. Thus, the word **چنگا** /change/, is an adjective but after the attachment of suffix - **یائی** /yai. It becomes **چنگیائی** changyai “goodness” which is a noun.

Arslan, Kanwal, Mahmood, and Haroon (2023) conducted the analysis of morphological analysis of case markers in Shahmukhi Punjabi nouns. The analysis revealed that the morphemes within the Punjabi language function as specific case markers for nouns. The investigation has illuminated that both the direct/nominative case and the oblique/accusative case are distinguished by the presence of morphemes **اے** /aa, I, ay/, and **ان** /an/ positioned at their respective locations, such as the subject and object

positions within a sentence. The vocative case is identified through the inclusion of morphemes ن and /,yo, ya/ , یو یا / iay/ at the end of the word. The genitive case is marked by the morphemes دے دی دے دا ، دے / da, di, day/ , and دیاں / dian/ , which signal possession. In this way, the study signified the importance of morphemes which is vital for identifying the form and function of Punjabi words in daily language use.

Root is a content morpheme which cannot be further divided into smaller meaningful units (Melinger, 2001). Stem is also used to refer “root” and a “root” plus affix c which allows the attachment of other affixes. The term base refers to partially complete word form with which an inflectional or derivational affix is attached (McCarthy, 2002).

Keeping in mind the level of morphology, Punjabi is a rich language. Similar to other languages such as Arabic, Persian, and Urdu, Punjabi is also affluent in its word formation process. Frequent and highly productive morphological processes grade it distinctive language. Being an agglutinative language, Punjabi uses affixation very frequently to produce new words. However, compounding and reduplication are also very frequent processes used in the formation of words in Punjabi language.

Punjabi is a gender oriented language. Punjabi nouns inflect for number (singular and plural), gender (male and female) and case (direct, oblique, vocative, ablative, and locative). Adjectives also agree with noun so they also use inflections according to their nouns for example چنگا /changa/ becomes چنگی /changī/, چنگے /changay/, چنگیاں /changian, چنگیو /changio/ and چنگیو /changeo/.

In this way variety of inflections are attached with the roots to make other forms of adjectives and derive adjectives from other grammatical categories of words. In this study all these patterns are studied and explained using the theory of distributed morphology. Morphemes in DM are distributed into two categories: functional head morphemes specified as (<>) and the roots symbolized as (√). In Punjabi language, a noun ‘Farukh’ can be described as: [√Farukh]. The syntactic features are inserted as [√Farukh <Noun, Sing, Masc>]. In this way attachment of morphemes is explained in this study.

## Material and Methods

The first step is data collection. This step consisted upon the collection of written form of Punjabi language data in the form of books, newspaper, columns and novels etc. Publishers were contacted and asked to share the published books, novels and other genres for research purposes. Online web sites, newspapers, columns and short stories were taken for the inclusion in the corpus.

## Corpus Development

The second step was corpus development. Corpus of 9 million words was developed. It consisted upon shahmukhi script of Punjabi language. At this step of the study books and other linguistic data which was available in hard (printed) form was converted into machine readable data. Google lens was used to convert printed data into machine readable or editable text. Two techniques are available first one is google Docs, in which pictures are taken of the printed pages and Pdf format is converted into pictures by taking screen shots and then uploaded to Gmail drive then those pictures are opened with google Docs and it extracts the linguistic data from it. **Data analysis**

Corpus of 9 million words was loaded into Antconc and the word list was developed. The word list was sorted by words. This helped to arrange all kinds of lexical

items collectively into one set. Then that list was further analyzed through excel sheet. At this level every set of lexical items was studied to find out how words are changing into different forms and part of speech categories of Punjabi language. All the prefixes and suffixes were also extracted at this level by keeping in the mind that after removing the prefix or suffix still the remaining part is a meaningful word.

## Results and Discussions

### Pattern 1

#### Derivation of Adjectives from Nouns with the insertion of /i/

Syntactic Function	Morphological Function		Semantic Function
Root morphemes	Inflections	Insertion	Logical form
√maghrib مغرب	/i/	Adjectives are derived from Nouns by joining /i/ at the end of the word	Maghrabi مغربی
√tareekh تاریخ			Tareekhi تاریخی
√Mashriq مشرق			Mashriqi مشرقی
√Shaoor شعور			Shaoori شعوری
<N°, Sing >	<Sing>		<Sing, Adj>

This pattern is about the formation of noun from adjective with the help of inserting /i/ morpheme at suffix position. The syntactic operation is described as √Azad is the head word and abstract description of this function is <Adj°, Sing >. In morphological operation process of insertion is applied. At semantic operation singular nouns are derived. The abstract description is <Sing, Noun>.

### Pattern 2

#### Derivation of Adjectives from Nouns with the insertion of /ia/

Syntactic Function	Morphological Function		Semantic Function
Root morphemes	Inflections	Insertion	Logical form
√Sarr سڑ	/il/	Adjectives are derived from Nouns by joining /ia/ at the end of the word	Sarrial سڑیل
√Mar مر			Marial مریل
√Ghusa غصہ			Ghusil غصیل
<N°, Sing >			<Sing>

### Pattern 3

#### Derivation of Adjectives from Nouns with the insertion of /vi/

Syntactic Function	Morphological Function		Semantic Function
Root morphemes	Inflections	Insertion	Logical form
√Afsana افسانہ	/vi/	Adjectives are derived from Nouns by joining /vi/ at the end of the word	Afsanvi افسانوی
√Roman رومان			Romanvi رومانوی
√Juz جز			Juzvi جزوی
√San ثان			Sanvi ثانوی
√Dunia دنیا			Duniavi دنیاوی
<N°, Sing >	<Sing>		<Sing, Adj>

Adjectives are derived from noun. This pattern describes the process of derivation adjectives from noun. The syntactic operation in this pattern shows that the root words are like  $\sqrt{\text{Azad}}$  and  $\sqrt{\text{Udaas}}$ . These are the masculine nouns. The abstract description of the pattern is  $\langle N^{\circ}, \text{Sing} \rangle$ . In morphological operation the morphemes such as /i/, /ia/, /vi/, /ae/ and /la/ are added at the end of the word. The process of insertion is performed here in result of which adjectives are formed.

The second pattern which is observed during the analysis that adjectives are also derived from nouns by joining the morpheme (وی) to make adjective like the words *afsanah* افسانہ is changed in to افسانوی *afsanvi* and رومانی *romani* to رومانوی *romanvi* which is adjectives. It shows the pattern that vi (وی) is attached to derive the adjectives.

The third pattern found for the making of adjectives is to join (ئے) /ae/ with the noun such as with the word *darya* دریا the morpheme (ئے) /ae/ is used to make the word (دریائے) *daryae* which is used as adjective in Punjabi language like سنڌھ دریائے.

The fourth pattern found in the derivation of adjectives from nouns is the use of morpheme /la/ (لا) such as the word *raitla* ریتلا and *sureela* سریلا are adjectives which are derived from the words ریت *rait* and سر *sur*.

The fifth pattern which is not much frequent in Punjabi language but still found is the use of the morpheme (ڙ) with the roots to make the words like *behkar* بھکڙ and *kitab* کتابڙ.

#### Pattern 4

##### Derivation of Adjectives from Nouns with the insertion of /deh/

Syntactic Function	Morphological Function		Semantic Function
Root morphemes	Inflections	Insertion	Logical form
$\sqrt{\text{Nuqsan}}$ نقصان		Adjectives	Nuqsandeh
$\sqrt{\text{Takleef}}$ تکلیف		are derived	Takleefdeh
$\sqrt{\text{Mojood}}$ موجود		from Nouns	Mojoodah
$\sqrt{\text{Ranj}}$ رنج		by joining at	Ranjidah
$\sqrt{\text{Pasand}}$ پسند		the end of	Pasandidah
		the word	
$\langle N^{\circ}, \text{Sing} \rangle$	$\langle \text{Sing} \rangle$		$\langle \text{Sing}, \text{Adj} \rangle$

#### Pattern 5

##### Derivation of Adjectives from Nouns with the insertion of /la/

Syntactic Function	Morphological Function		Semantic Function
Root morphemes	Inflections	Insertion	Logical form
$\sqrt{\text{rait}}$ ریت		Adjectives	Raitla ریتلا
$\sqrt{\text{Sur}}$ سر		are derived	Surila سریلا
$\sqrt{\text{Ras}}$ رس	/la/	from Nouns	Rasela رسیلا
$\sqrt{\text{Zehar}}$ زہر		by joining	Zeharila زہریلا
$\sqrt{\text{Josh}}$ جوش		/la/ at the	Joshila جوشیلا
		end of the	
		word	
$\langle N^{\circ}, \text{Sing} \rangle$	$\langle \text{Sing} \rangle$		$\langle \text{Sing}, \text{Adj} \rangle$

#### Prefixes

	ناحق	ان پڑھ	لاپرواہ
کم عقل Kam aqal	Na haqq	Anparh	Laparwah
پر جوش Purjosh	با اعتبار Baetbar	بد تمیز Badtameez	بے چین Baychain

The prefix کم kam, it originated from Persian language. It is mainly used to form adjectives from already existing words. All the examples given in the above table show the formation of adjectives except the one example کم زوری Kam zori. It will be used as noun in Punjabi language. It became noun through the addition of ی /i/ morpheme at the end of the word. Here, ی /i/ worked as derivational morpheme and made noun from adjective.

The prefix نا /na/, this prefix originates from the Persian language. It is basically joined with other words at the beginning to make nouns in most of the cases. The prefix equates the English prefix /un/ but it does not equate in all cases. Few words get different prefixes and translation when they are equated to English words.

The word نا خوش Na khush is the translation of unhappy. It equates the English prefix /un/ but it varies in context to other words such as نا ممکن Na mumkin is the translation of impossible. So variations are found across language with relation to the use of prefixes.

The other aspect which needs to mention here is that such prefixes نا /na/, ان /an/ کم /kam/ لا /la/ بے /bae/ and بد /bad/ are mostly used to construct words possessing the meanings of negation and these words play vital role in the formation of antonyms.

Such kinds of words are also observed while analyzing the morphology and the affixation that few prefixes are joined with the words which are actually used a suffix in some other context like نادان /nadaan/. Here /na/ is joined as prefix with the word دان /dan/ which is used as suffix with the word پھولدان /phooldaan/ means flowerpot.

The prefix ان /an/ is joined at the beginning of the word to make new words. The origin of this prefix was traced in Arabic language. This prefix is joined with the word to form adjectives. The prefix لا /la/, this prefix originates from Arabic language. This prefix is joined at the beginning to form adjectives and it denotes negative meanings, inability and incapability of some person.

The prefix پر /pur/, this prefix is joined to make adjectives. This prefix originates from Sanskrit language. It is joined with the words to show optimistic aspect and the capability of something.

The prefix با /ba/, it is basically used to form adjectives in Punjabi language. This prefix originates from Persian language and it is used to form adjectives in Punjabi language. The words carrying this prefix show the meaning possession, equipping and carrying anything.

The prefix بد /bad/, it is basically used to form adjectives by joining it at the beginning of the words. This prefix originates from Persian language. It is joined to make the words of negation and negative connotations. If some other morpheme is added at the end of the word it begins to work as noun in Punjabi language such as بدمعاش /badmaash/ becomes بدمعاشی /badmaashi/ with the addition of just one morpheme ی /i/. There are many other examples of such noun formation in this particular case.

The prefix بے /bay/ was found in the corpus joined at the beginning of the words. Its origin is found in Persian language. In most of the cases, it is joined to form adjectives with the word but it is also used as noun if some other morpheme is joined at the end of the word as told in the case of above discussed prefix بد /bad/. If ی /i/ and آ /a/ is joined at the end it becomes noun. This prefix is also joined with the word to form words of

negative meanings and connotation. It also shows the meaning of without, inability and lack of potential and characteristics of possessing something.

### Suffixes

خطرناک	عقلمند	خُشگوار	عالمانہ
khatarnaak	Aqalmand	Khushgwar	Alimana
خوفزادہ	سریلا	قومپرست	نشہ آور
Khaufzadah	Sureela	Qomparast	Nashaawar
وفا دار	حرامکھور	دلسوز	خودساختہ
Wafadar	Haramkhor	Dilsoz	Khudsakhta
دلدوز	وفا دار	جعلساز	طاقتور
Dildoz	Wafadar	Jaalsaz	Taqatwar
ہفتاوار	دغیباز	چشمدید	
Haftawar	Daghebaz	Chashamdeed	

The suffix **ناک/naak/** is joined at the end of the words to form adjectives. This suffix originated from Persian language. The examples of all the adjectives found in the corpus with the suffix are mentioned here.

The suffix **مند /mand/**, adjectives are formed usually by joining it at the end of the words. The origin of the suffix was traced back in Arabic language. The above table also includes all the orthographical examples of the words including this suffix. This suffix gives the meanings of having and possession.

The suffix **گوار /gawar/**, the origin of this suffix is in Persian language. Most of the words formed through this suffix are adjectives. This suffix forms the words related to feelings, experience and emotions.

The suffix **نہ /na/**, this suffix is added to form adjectives. The origin of this suffix is from Persian language. The words formed with the addition of this suffix give the meaning to qualify some noun as adjective. The suffix **پرست /prast/**, It helps in the formation of adjectives. Its origin in is Persian language. It gives the meaning depending or relating to something.

The suffix **زادہ /zadah/**, adjectives are formed through the addition of this suffix. It originates from Persian language. It works as a word which begins to describe the state of being of a person.

The suffix **یلا /eela/**, it helps in making adjectives in Punjabi language. All the occurrences found in the corpus are of adjectives except the word **گجریلا /gajreela/**. Adjectives formed through the addition of this suffix tell about persons and things, their qualities and features. The above example is related to the suffix **آور /awar/** found in the corpus. This suffix helps in the formation of adjectives.

The suffix **دار /dar/**, adjectives and nouns both are formed through the addition of this suffix. Its origin is traced back to Persian language. It conveys variety of meanings which show the characteristics and feature of some person and thing.

The suffix **کھور /khor/**, it is equal the suffix **خور /khor/**. Due to dialectal differences these two different suffixes are found. It gives the meaning of eater, doer and consumer. Nouns and adjectives both are formed through this suffix. Within Punjabi language **ف** is often replaced by **پھ** **خ** is often replaced by **کھ** **ز** is replaced by **ج** and **غ** is replaced by **ک** by most of the Punjabi speakers. Variety of factors play role here in this shift of sound. It might be the education, locality and dialect which become the reason behind this shift.



The above examples are related to suffix **سوز** /soz/. Found in corpus. It helps in the formation of adjectives. Its origin is in Persian language. It gives the meaning of hurting and threatening. This example given above is related to suffix **ساخته** /sakhta/. It helps in the formation of adjectives. Its origin is in Persian language. It gives the meaning of form and structure.

The above examples are of the suffix **دوز** /doz/ found in the corpus. It helps in the formation of adjectives. Its origin is found in the Persian language. The above table includes the examples of the suffix **دار** /dar/. Adjectives and nouns both are formed through the addition of this suffix. Its origin is traced back to Persian language. It conveys variety of meanings which show the characteristics and feature of some person and thing.

This table includes the examples of the suffix **ساز** /saz/. This suffix helps in the formation of adjectives. This suffix originates from Arabic language. It gives the meaning of some profession or creation. This table provides the examples of the suffix **ور** /war/. It helps in forming adjectives in all cases. It gives the meaning of ability and skill. This table includes the examples of the suffix **وار** /war/. It helps in making nouns at higher frequency, adjectives are lesser in number such as; zumewar, khushgawar, sogwar and qasoorwar. Its origin is from in Persian language. It provides variety of meanings which cannot be differentiated on the basis of suffix.

The suffix **باز** /baz/ helps in the formation of nouns and adjectives. It originated from Arabic language. It shows the traits and quality of some person. The above table includes the examples of the suffix **دید** /deed/. It originated from Arabic language. Both adjectives and nouns are formed with the help of this suffix.

## Conclusion

This analysis was concerned with the morphemes playing vital role in the formation adjectives. Research intended to get the answers of the questions regarding the patterns of morphemes helping in the formation of adjectives. Results of the study revealed that the morphemes such as /i/ی, /vi/وی, /deh/ده, and /ia/ایل and /la/لا were the morphemes which play key role in the formation of adjectives. Results also showed that there are other prefixes and suffixes through which adjectives are formed. The prefixes are /kam/ کم, /la/ لا, /an/ ان, /bay/ بے, /bad/ بد, /pur/ پر, /ba/ با, and /na/ نا and the suffixes are /naak/ ناک, /mand/ مند, /gawar/ گوار, /anah/ انه, /dar/ دار, /khor/ خور, /soz/ سوز, /sakhta/ ساخته, /doz/ دوز, /saz/ ساز, /war/ ور, /war/ وار, /baaz/ باز, /deed/ دید. Results revealed that the number of suffixes are greater in number than the prefixes which play vital role in the formation of adjectives.

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